

A Translation of the New Edition of the
Suśrutasamhitā

Jason Birch Dominik Wujastyk Andrey Klebanov
Lisa A. Brooks Paras Mehta
et alii

Draft of 27th July 2023
© The Authors

Contents

The manuscripts and editions used in the vulgate editions by Yā-	
davaśarman Trivikrama Ācārya	5
The sources of the 1915 edition	5
The sources of the 1931 edition	5
The sources of the 1938 edition	6
Evaluation	7
The 1939 edition	8
The sources for the Bhānumatī	8
The sources for the Suśrutasaṃhitā	10
Evaluation	10
Features of the manuscript transmission	12
Palaeographical features	12
Chart of characters	12
Sūtrasthāna, adhyāya 1	13
Sūtrasthāna, adhyāya 2	20
Literature	20
Sūtrasthāna, adhyāya 13: On Leeches	21
Literature	21
Previous scholarship	21
Translation	21
Sūtrasthāna, adhyāya 14: On Blood	28
Previous scholarship	28
Translation	28
Sūtrasthāna, adhyāya 16	35
Sūtrasthāna, adhyāya 28	43
Nidānasthāna, adhyāya 1: On the diagnosis of diseases caused by	
wind वातव्याधिनिदानम्	44
Literature	44
Translation	44

Kalpasthāna, adhyāya 1	47
Literature	47
Manuscript notes	48
Translation	49
[Threats to the king]	49
Kalpasthāna, adhyāya 2	58
Introduction	58
Translation	58
The effects of poisons	63
Symptoms of tuber poisoning	64
Slow-acting poison	66
The stages of toxic shock	68
Remedies for the stages of slow poisoning	68
The invincible ghee	71
Curing the ‘slow-acting’ poison	71
Kalpasthāna, adhyāya 3	72
Introduction	72
Translation	72
The origin of poison	76
Patients beyond help	78
Kalpasthāna, adhyāya 4	80
Introduction	80
Literature	80
Translation	81
Uttaratantra, adhyāya 16 (17 in the vulgate)	84
Literature	84
Translation	84
[Complications]	93
[Characteristics of the probe]	94
[Complications]	94
Uttaratantra, adhyāya 38	97
Summary of the Content	97
Placement of the Chapter	97

Parallels	99
Philological notes	99
Metrical alterations	99
The original opening verses	99
Translation	101
Tantrayuktayah	103
Editions and Abbreviations	104
Index of Manuscripts	109
Glossary	110
References	128
Glossary	151
Materia Medica Reference Works	165
Glossary and Index of Medical Substances	168
On digital critical editions	140

Nidānasthāna, adhyāya 1: On the diagnosis of diseases caused by wind वातव्याधिनिदानम्

Literature

Existing research on this chapter to 2002: [HIML](#): IB, 354–369.

Translation

- 1 And now we shall explain the chapter about diagnosis of diseases caused by wind¹⁴².
- 2
- 3 Dhanvantari, the foremost of the upholders of righteousness, who emerged with nectar, Suśruta asks after touching/holding his feet.
- 4 O King¹⁴³! (Perhaps divodāsa) the best of the orators! Let us know about the naturalized and disordered form of wind, its places in the body and types of the diseases caused by its contamination.
- 5–9ab On hearing his words, the venerable sage replied that being independent, constant and omnipresent this wind is revealed as self-born and supreme being. It is situated in the form of life-force in all beings and worshiped by all worlds. It is the cause of origin, continued existence and destruction of beings. It is unmanifest though manifests in/through action, cold, dry, light in weight, variable, moving horizontally with two attributes i.e., sound and tangibility¹⁴⁴. Having all chief qualities which are sattva, rajas and tamas but predominated by rajas. It has inconceivable power. It is inducer of humours¹⁴⁵ and distinguished in the group of diseases¹⁴⁶. *It moves quickly, moves again and again*, stays in stomach and intestine.
- 9cd Now, listen to the description of wind which moves inside the body.

diseases caused by wind. Don't use modern interpretative terminology. But what you can do is have that discussion about terminology in a footnote or in your introductory remarks.

subject-verb-object

Don't put guesses in the main text. Footnote them.

142 Appropriate word for vātavyādhi? Diseases caused by wind or rheumatism?

143 H and N both mss read भूपते instead of कौपनैः in the vulgate.

144 According to Ḍalhaṇa, it has power to divide humours, fluids, feces etc. moving inside the body and it is the cause to the disease in the limbs. It carries humours, chyle, semen/7 fluids? and feces further in the body. The wind which is moving outside is holding the earth and body. (सा चास्य शक्तिः शरीरदोषमूत्रपुरीषादिविभागोऽवयवसंस्थानका(क)रणं दोषधातुमलसंवहनादिश्च, शरीराद्धिस्तु संचरतो धरणीधारणादिः Su 1938:257)

145 Ḍalhaṇa suggests नेता=प्रेरक (Su 1938:257)

146 Ḍalhaṇa suggests राट्=राजते not राजा

- 10 Unvitiated wind makes possible objects of senses connect with intellect. It maintains a state of equilibrium between the humours, semen/7 fluids? and Gastric fluid and actions done by body, speech and intellect bring to one's right place¹⁴⁷.
- 11 Just as the five types of bile have been described based on their name, place and their actions, similarly, one type of air is of five types based on name, place, action and diseases.
- 12 Five types of wind:
1. Vital wind (*prāṇa*)
 2. *udāna*
 3. *samāna*
 4. *vyāna*
 5. *apāna*

above five types of wind remain in their equilibrium and hold the body¹⁴⁸.

- 13-14ab The wind that flows through the mouth is called the vitality (*prāṇa*), which holds the body. It propels down food inside the stomach and engages with the gastric fluid¹⁴⁹. Unvitiated Vital wind mostly causes hiccups, asthma etc. diseases.
- 14cd-15 . The wind which flows upwards in the body, the best among all five winds is called *udāna*. Singing, speech etc. individual things done by the same wind. Unvitiated *udāna* wind mostly causes diseases above the collar bone e.g., nose, eyes, head and ears¹⁵⁰.
- 16-17ab The *samāna* wind flows in stomach and duodenum. It helps gastric fluids in the digestion of food and separates the substances produced

147 According to Ḍalhaṇa, सम्पत्तिः=सम्पन्नता at 1.6.3 (Su1938:23). Ḍalhaṇa commented that Gayadāsa reads 'इन्द्रियार्थोपसंप्राप्तिः' but not written here because of being detailed. (गय-दासाचार्यस्तु इमं श्लोकं 'इन्द्रियार्थोपसंप्राप्तिः' इत्यादि कृत्वा पठति, स च विस्तरभयान्न लिखितः) But H and N mss suggest 'इन्द्रियार्थोपसम्पत्तिः'

148 Ḍalhaṇa suggests स्थान=साम्य, यापयन्ति=धारयन्ति (The manuscripts all read प्राणोदानः समानश्च व्यानोपानस्तथैव च । against the vulgate's प्राणोदानौ समानश्च व्यानश्चापान एव च । I think प्राणोदानौ, व्यानापानौ or व्यानश्चापान एव च should be read)

149 Ḍalhaṇa suggests head, chest, throat and nose as locations of *prāṇa*. (Sus1938:259) Gayadāsa suggests अग्नि for प्राण.

150 Ḍalhaṇa suggests it also causes diseases like cough etc. (चकारादन्यादपि प्राणोदानौ, व्यानापानौ कासादीन् करोति ।)

from it e.g., chyle, impurities, urine and feces. Unvitiated samāna wind causes diseases like a chronic enlargement of spleen (gulma), weak digestion, and diarrhea.

17cd–18 The vyāna wind moves inside the whole body and circulates chyle and expels sweat and blood outside the body. It helps in the movements of limbs in every way. Contaminated vyāna wind causes all diseases occurring in the body.

19–20ab Staying in the abdomen, the apāna wind propels wind of body, feces, urine, semen, womb and menstruation to come out of the body at their proper time. Contaminated apāna wind causes terrible diseases that occur in the bladder and anus.

Kalpasthāna, adhyāya 1

The first chapter of the Kalpasthāna of the *Suśrutasamhitā* addresses the topic of protecting a king from those who would assassinate him using poison. The king's kitchen is presented as the site of greatest vulnerability. The staff in the kitchen must be vetted carefully and watched for signs of dissimulation. The description of the body-language that tells a poisoner (verses 18–25) are engaging and vivid. These verses are closely parallel in sense to a passage in the *Arthaśāstra* that says,

The signs of a poisoner, on the other hand, are as follow: dry and dark look on the face, stuttering speech, excessive perspiration and yawning, trembling, stumbling, looking around while speaking, agitation while working, and not remaining in his place.¹⁵¹

Next, the text discusses the signs of poison in toothbrushes, in food, drink, massage oil and other items that are likely to come into physical contact with the king. In passages that are again paralleled in the *Arthaśāstra* the work describes how poisoned food kills insects and crackles in a fire, flashing blue and the reactions of various birds to poison are described.¹⁵²

The work then moves on to the various symptoms experienced by the king after being poisoned, and remedies appropriate to each case. Poison exhibits characteristic signs when added to milk and other drinks.¹⁵³ Further forms of poisoning, their symptoms and treatments are described and finally the king is advised to live amongst trusted friends and to protect his heart by drinking various ghee compounds. He should eat the meat and soup made from various animals, including peacock, mongoose, alligator, deer. The chapter ends with the description of an emetic.

Literature

A brief survey of this chapter's contents and a detailed assessment of the existing research on it to 2002 was provided by Meulenbeld.¹⁵⁴ Translations of this chapter since Meulenbeld's listing have appeared by Wujastyk

¹⁵¹ *Arthaśāstra* 1.21.8 (Kangle 1969: 1, 30), translation by Olivelle (2013: 97).

¹⁵² Cf. *Arthaśāstra* 1.21.6, *ibid.*, Olivelle (2013: 96).

¹⁵³ Cf. *Arthaśāstra* 1.21.6 again.

¹⁵⁴ HIML: IA, 289–290.

(2003^b: 131–139), P. V. Sharma (1999–2001: 3, 1–15), and Srikantha Murthy (2000–02).¹⁵⁵

More recently, a discussion of the fourth chapter of this section in the light of the Nepalese manuscripts was published by Harimoto.¹⁵⁶ After a close comparative reading of lists of poisonous snakes, Harimoto concluded that, “the Nepalese version is internally consistent while the [vulgate] editions are not.” Harimoto showed how the vulgate editions, had been adjusted textually to smooth over inconsistencies, and gave insights into these editorial processes.¹⁵⁷

Manuscript notes

- MS Kathmandu NAK 5-333 has foliation letter numerals, for example on f. 323a, that are similar to MS Cambridge Add. 1693,¹⁵⁸ dated to 1165 CE noted in Bendall’s chart of Nepalese letter-numerals Bendall 1883: Lithograph V, after p. 225

¹⁵⁵ For a bibliography of translations to 2002, including Latin (1847), English (1877), Gujarati (1963) and Japanese (1971), see [HIML](#): IB, 314–315.

¹⁵⁶ Harimoto 2011: 101–104.

¹⁵⁷ The two editions that Harimoto noted, [Su 1938](#) and [Su 1889](#), present identical texts.

¹⁵⁸ Scan at cudl.lib.cam.ac.uk/view/MS-ADD-01693/1.

Translation

- 1–2 And now I shall explain the procedures for safeguarding food and drink, as were declared by the Venerable Dhanvantari.¹⁵⁹
- 3 Divodāsa, the king of the earth, was the foremost supporter of religious discipline and virtue. With unblemished instruction he taught his students, of whom Suśruta was the leader.¹⁶⁰

[Threats to the king]

- 4–5 Evil-hearted enemies who have plucked up their courage, may seek to harm the king, who knows nothing of it. He may be assailed with poisons by or by his own people who have been subverted, wishing to pour the poison of their anger into any vulnerability they can find.¹⁶¹
- 6 Therefore, a king should always be protected from poison by a physician.
- 7 The racehorse-like fickleness of men's minds is well known. And for this reason, a king should never trust anyone.¹⁶²

159 MS H adds in the margin अथ खलु वत्स सुश्रुतः “Now begins Vatsa Suśruta.” This phrase has been copied here by the scribe from the beginning of the *Suśrutasaṃhitā* chapter in the *sūtrasthāna* on the rules about food and drink (1.46.3 (Su 1938: 214)). The scribe presumably felt, not unreasonably, that this section had common subject matter with the present chapter. Further, SS 1.46.3 is the only place in the Nepalese transmission of the *Suśrutasaṃhitā* that names Dhanvantari and integrates him into the narrative of the *Suśrutasaṃhitā* as the teacher of Suśruta.

The mention of Dhanvantari here is the only other time in the Nepalese transmission that this authority is cited as the source of Ayurvedic teaching, and the unique occurrence of this actual phrase, “as was declared by the Venerable Dhanvantari.” See the discussion by Klebanov (2021a: 28–32), who concludes that the earliest recoverable recension of the *Suśrutasaṃhitā* may have had the phrase only at this point and not elsewhere in the work. See the further discussion by Birch, Wujastyk, Klebanov, Parameswaran, et al. (2021).

160 This is a quite different statement from the vulgate which has Dhanvantari as the teacher, and calls him the Lord of Kāśī (*kāśīpati*) (Su 1938: 559). Ḍalhaṇa followed the vulgate but explicitly noted the reading before us with small differences: दिवोदासः क्षितिपतिस्तपोधर्मश्रुताकरः “Divodāsa, the king of the earth, was a mine of traditions about discipline and virtue.”

161 Verses about the use of Venemous Virgins as a weapon do not appear in the Nepalese manuscripts. Cf. Wujastyk 2003b: 81 f., 132. This material is present in the commentary of Gayadāsa.

162 The verb √ śvas is conjugated as a first class root in the Nepalese manuscripts.

- 8–11 He should employ a doctor in his kitchen (*mahānasa*) who is respected by experts, who belongs to a good family, is orthodox, sympathetic, not emaciated, and always busy.
- 12–13 The kitchen should be constructed at a recommended location and orientation. It should have a lot of light,¹⁶³ have clean utensils and be staffed by men and women who have been vetted.¹⁶⁴
- 17–18ab The chefs, bearers (*voḍhāra*), and makers of boiled rice soups and cakes and whoever else might be there, must all be under the strict control of the doctor.¹⁶⁵
- 18cd–19ab An expert knows people’s body language (*iṅgita*) through abnormalities in voice, movement and facial expression. He should be able to identify a poisoner by the following signs.
- 19cd–23 Wanting to speak, he gets confused, when asked a question, he never arrives at an answer, and he talks a lot of confused nonsense, like a fool. He laughs for no reason, cracks his knuckles and scratches at the ground. He gets the shakes and glances nervously from one person to another. His face is drained of colour, he is grimy (*dhyāma*) and he cuts at things with his nails.¹⁶⁶ A poisoner goes the wrong way and is absent-minded.
- 25–27 I shall explain the signs to look for in toothbrush twigs, in food and drink as well as in massage oil (*abhyāṅga*) and combs (*avalekhana*); in dry rubs (*utsādana*) and showers, in decoctions (*kaṣāya*) and massage ointment (*anulepana*); in garlands (*sraja*), clothes, beds, armour and ornaments; in slippers and footstools, and on the backs of elephants and horses; in nasya (*snuff*), inhaled smoke (*dhūma*), eye make-up (*añjana*), etc., and any other things which are commonly poisoned. Then, I shall also explain the remedy.
- 28 Flies or crows or other creatures that eat a poisonous morsel (*bali*)

Cf.
Arthaśāstra
1.21.8.

163 We read महच्छुचिः with the Nepalese manuscripts and against the vulgate’s महच्छुचि. We understand शुचिस् as a neuter noun meaning “light” following Apte (Apte: 1050a).

164 Verses detailing the ideal staff are omitted in the Nepalese manuscripts. Cf. Su 1938: 560; Wujastyk 2003b: 132.

165 The word सौपोदनैकपूषिक “chefs for the boiled rice soups and cakes” is grammatically interesting. The term सूपोदन (as opposed to सूपौदन) is attested in the *Bodhāyanīya-grhyasūtra* 2.10.54 (Shastri 1920: 68). More pertinently, perhaps, सूपोदन is attested in the Bower Manuscript, part II, leaf 11r, line 3 (Hoernle 1893–1912: vol. 1, p. 43).

166 The word ध्याम is glossed by Ḍalhaṇa (in a variant reading) as someone who is the colour of dirty clothes 5.1 (Su 1938: 560).

- served from the king's portion, die on the spot.
- 29 Such food makes a fire crackle violently, and gives it an overpowering colour like a peacock's throat.
- 30–33 After a chukar partridge looks at food which has poison mingled with it, its eyes are promptly drained of colour; a peacock pheasant drops dead. A koel changes its song and the common crane rises up excitedly.¹⁶⁷ It will excite a peacock and the terrified parakeet and the hill myna screech. The swan trembles very much, and the racket-tailed drongo churrs.¹⁶⁸ The chital deer sheds tears and the monkey releases excrement.¹⁶⁹
- 34cd Vapour rising from tainted food gives rise to a pain in the heart, it makes the eyes roll, and it gives one a headache.¹⁷⁰
- 35, 36cd In such a case, an errhine and a collyrium that are costus, ??, *spikenard* and honey (*madhus*);¹⁷¹ a paste of sandalwood on the heart may also provide relief.¹⁷²

167 The verb अर्च्छति “rises up” is a rare form best known from epic Sanskrit (see Oberlies 2003: 212, §7.6.1). The transmitted form क्रौञ्च is obviously a colloquial version of Sanskrit क्रौञ्च. Commenting on 1.7.10 (Su 1938: 31), Ḍalhaṇa interestingly gives the colloquial versions of several Sanskrit bird names, even singling out pronunciation in the specific location of Kānyakubja. For क्रौञ्च he says that people pronounce it कुरञ्ज and कौञ्चि. The form क्रौञ्च is found in Pāli (see Cone 2001: 731, who notes that Ardhamaṅgadhi has the same form). Elsewhere, Ḍalhaṇa calls the bird क्रौञ्चिर, क्रौञ्चि, and कैचर (1.46.105 (Su 1938: 223), 6.31.154 (Su 1938: 684) and (6.58.44 (Su 1938: 790) respectively).

168 Ḍalhaṇa seemed confused about the racket-tailed drongo (भृङ्गराज). He called it a generic drongo (भ्रमरक), a word that can also mean “bee,” (Dave 1985: 62), and then said that it is like the black drongo (धूम्याट) (for a nice explanation of this name, see Dave 1985: 62–63) and that people call it “the king of birds.”

169 MS Kathmandu KL 699 reads “bull (वृषभ)” for “Chital deer (पृषत).” The latter may perhaps be mistaken for the former in the Newa script, although the reading of MS Kathmandu KL 699 is hard to read at this point.

170 “Tainted” translates उपक्षिप्त. The word’s semantic field includes “to hurl, throw against,” and especially “to insult verbally, insinuate, accuse.” The commentator Ḍalhaṇa glossed the term as, “spoiled food given to be eaten” (विदूषितस्यान्नस्य भोक्तुं दत्तस्य), but he noted that some people read “उखाक्षिप्त” or “thrown into a pan.” Other translators have commonly translated it as “served,” perhaps influenced by Ḍalhaṇa’s “given (दत्त).”

171 The vulgate supplies another phrase and verb at this point that is not present in the Nepalese transmission, but that makes the text flow more easily.

172 sing-1972 discussed the difficulties in identifying लामञ्ज, a plant cited more often in the *Suśrutasaṃhitā* than in the *Carakasamhitā*; Ḍalhaṇa adopted the common view that it is

- 37 Held in the hand, it makes the hand burn, and the nails fall out. In such a case, the ointment (*pralepa*) is [beautyberry](#), [velvet-mite](#), soma and [blue water-lily](#).¹⁷³
- 38–39 If he eats that food, through inattention or by mistake, then his tongue will feel like a pebble (*aṣṭhīlā*) and it will lose its sense of taste. It stings and burns, and his saliva (*śleṣman*) dribbles out.¹⁷⁴ In such a case, he should apply the treatment recommended above for vapour (*bāṣpa*), and what will be stated below under “toothbrush twigs”.¹⁷⁵
- 40 On reaching his stomach, it causes stupor (*mūrcchā*), vomiting, the hair stands on end, there is distension, a burning feeling and an impairment of the senses.¹⁷⁶
- 41 In this case, vomiting must quickly be induced using the fruits of [emetic nut](#), [gourd](#), [red gourd](#), and [luffa](#), taken with milk and [watered butter](#)-

a type of *uśīra* or vetiver grass. The grammatical neuter form मधुस “sweetness” of the Nepalese manuscripts is less common than neuter मधु “honey, sweetness, liquorice.”

- 173 “Beautyberry” (*Callicarpa macrophylla* Vahl.) is one identification of श्यामा, but vaidyas and commentators have different ideas about the plant’s identity (see glossary).

On translating इन्द्रगोप as “velvet-mite,” see Lienhard 1978. Ḍalhaṇa’s remarks show that he had a reading इन्द्रगोपा before him, and he tries to explain इन्द्रा and गोपा as separate plants. But he also says that some people read इन्द्रगोप.

Ḍalhaṇa curiously parsed the name सोमा (f.) out of the compound; this feminine noun is almost unknown to Ayurvedic literature. Some dictionaries and commentators consider it a synonym for गुडूची, others for ब्राह्मी or चन्द्रतरु. Ḍalhaṇa also mentioned that some people think the word refers to the soma creeper (सोमलता), which might explain his choice to take the word as feminine. But the compounded word is far more likely to be सोम (m.), the well-known mystery plant (see Wujastyk 2003b: 76–78, 125). If this can be taken as rue (*Ruta graveolens*, L.), as some assert, one can point to a pleasing passage in Dioscorides where rue plays an antitoxic role: “...it is a counterpoison of serpents, the stinging of Scorpions, Bees, Hornets and Wasps; and it is reported that if a man be anointed with the juice of the Rue, these will not hurt him; and that the serpent is driven away at the smell thereof when it is burned; insomuch that when the weasel is to fight with the serpent she armeth herself by eating Rue, against the might of the serpent” (cited from Potter: 262; not found in Osbaldeston and Wood 2000).

- 174 The word अष्टील is normally feminine. The Nepalese manuscripts read it with a short अ- ending. Gayadāsa noticed that some manuscripts read अष्टील with a short -अ ending (MS Bikaner RORI 5157, f. 5v:7–8) and Ḍalhaṇa reproduced his observation. The vulgate reading “from his mouth (चास्यात्)” is more obvious (*lectio faciliior*), but is not attested in the Nepalese manuscripts.

- 175 Poisoned toothbrushes are discussed in verses 48 ff. below.

- 176 I translate मूर्च्छा in the light of the metaphors discussed by Meulenbeld (2011), that include thickening and losing consciousness.

- milk, or alternatively with rice-water.
- 42 Reaching the intestines (*pakvāśaya*), it causes a burning feeling, stupor, diarrhoea, thirst, impairment of the senses, flatulence (*āṭopa*) and it makes him pallid and thin.
- 43 In such a case, purgation with the fruit of indigo (*nīlī*), together with ghee, is best. And ‘slow-acting poison antidote (*dūṣīviṣāri*)’ should be drunk with honey and curds (*dadhi*).¹⁷⁷
- 44 When poison is in any liquid substances such as milk, wine or water, there are various streaks, and foam and bubbles form.
- 45 And no reflections are visible or, however, if they can be seen once more, they are distorted, fractured, or tenuous and distorted too.¹⁷⁸
- 46 Vegetables, soups, food and meat are soggy and tasteless. They seem to go stale suddenly, and they have no aroma.
- 47 All edibles lack aroma, colour or taste. Ripe fruits rapidly rot (*prā√kuth*) and unripe ones ripen.¹⁷⁹
- 48 When a toothbrush twig has poison on it, the bristles are corroded and the flesh of the tongue, gums and lips swells up.¹⁸⁰
- 49 Then, once his swelling is lanced, one should rub (*pratisāraṇa*) it with fire-flame bush flowers jambul, mango stones and chebulic myrobalan fruit mixed with honey.¹⁸¹
- 50 Alternatively, the rubbing (*pratisāraṇa*) can be done with either the roots of sage-leaved alangium, the bark of blackboard tree or siris seeds.¹⁸²

I'm still unhappy about this verse.

Mention this in the introduction as an example of the scribe knowing the vulgate.

fn about sadyas+

177 The ‘slow-acting poison’ is discussed at 5.2.25 ff. (Su 1938: 565).

178 Both Nepalese witnesses read विकृत (distorted) twice, which is tautologous. In the first occurrence both read विकृता without proper termination. One might read the sandhi in the second occurrence as or not distorted (*vāvikṛtā*), but this gives no better sense. The scribe of MS Kathmandu NAK 5-333, apparently the original hand, added in the margin the alternate reading “double (*yamalā*)” as in the vulgate. Perhaps the scribe too was troubled by the tautology. It is also evidence that he was aware of a witness with variant readings similar to the vulgate. We emend for grammar but retain the *lectio difficilior*.

179 The root √कुथ “stink, putrify, rot” is apparently known only from its few uses in the *Suśrutasamhitā*.

180 Gayadāsa and Ḍalhaṇa pointed out that “enclosure of a tooth (दन्तवेष्ट)” and “flesh of the tooth (दन्तमांस)” have the same meaning (2.16.14–26 (Su 1938: 331–332)).

181 This recipe is different from the vulgate.

182 The spelling of the name अङ्गोल varies अङ्गोट, अङ्गोठ, अङ्गोल (GVDB: 5); Ḍalhaṇa noted that the form अङ्गोल is a colloquialism (1.37.12 (Su 1938: 161)). The sentence is awk-

- 51ab One should give advice about a poisoned tongue-scraper or mouth-wash (*kavala*) in the same way as for a toothbrush twig.
- 51cd Massage oil that has been laced with poison is slimy, thick and discoloured.
- 52 When the massage oil has been contaminated with poison, boils arise, pain, a discharge (*srāva*), inflammation of the skin, and sweating.¹⁸³ And the flesh (*māṃsa*) splits open.
- 53–54 In such a case, sandalwood, *crape jasmine*, *costus*, and *cuscuta* grass, *bamboo leaves*, *heart-leaved moonseed* and *heart-leaved moonseed*, *white clitoria*, *sacred lotus*, and *Indian barberry* should be made into an ointment (*anulepana*) for the patient, who has been sprinkled with cold water. That is also recommended as a drink with the juice and leaves of *wood apple*.¹⁸⁴
- 55 In the case of a dry rub (*utsādana*), a shower (*parīṣeka*), an infusion, a massage ointment (*anulepana*), or in beds, clothes, or armour, the physician should understand that it is the same as for oil massage (*abhyāṅga*).¹⁸⁵
- 56–58 When a comb has poison in it, the hair falls out, the head aches and blood oozes from the follicles (*kha*) and lumps (*granthi*) appear on the head. In such a case, one should repeatedly apply an ointment of black earth soaked with *bear's bile*,¹⁸⁶ ghee, *beautyberry*,¹⁸⁷ *black creeper*, and *amaranth*. Good alternatives are either the fluid extract of cow-dung, or the juice of *jasmine*, the juice of *woodrose*, or household soot.¹⁸⁸

Bear's bile
instead of
deer's bile.

ward and we have emended शिरीषमाषक to be a plural, as in the vulgate, rather than the ablative singular of the Nepalese witnesses. We follow Ḍalhaṇa in interpreting the compound to refer to the distinctive bean-like siris seeds, rather than to *mung beans* (5.1.50 (Su 1938: 562)).

183 The feminine स्फोट for “boils” is unattested.

184 This compound could be interpreted as “wood apple juice and *cassia cinnamon*.” Note that this recipe differs from that of the vulgate, which requires urine.

185 See verse 52 above.

186 Ḍalhaṇa comments here that ‘bile is that fluid which goes along inside the tube attached to the liver’ (कालखण्डलग्ननलिकामध्यगतजलं पित्तम्) 5.1.57 (Su 1938: 562).

187 See note 173.

188 The plant identifications in this passage follow Ḍalhaṇa’s glosses, although he noted a difference of opinion on the identity of *woodrose* (lit. “mouse-ear”).

The expression धूमो वागारसंज्ञितः ‘...or the smoke termed “house”’ is commonly interpreted by translators and in Ayurvedic dictionaries as ‘household soot,’ and this does

- 59 If either massage oil for the head, or a helmet for the head, in a wash, turban, or garlands that are contaminated with poison, then one should treat it in the same way as a comb.
- 60–61 When face make-up is poisoned, the face becomes dark and has the symptoms found with poisoned massage oil. It is covered with spots (*kaṇṭaka*) that are like lotus-spots (*padminīkaṇṭaka*).¹⁸⁹ In this case, the drink is honey and ghee, and the ointment (*pralepa*) is sandalwood with ghee, curds, honey, **verbena**, **scarlet mallow** and **hogweed**.¹⁹⁰
- 62–63ab Elephants and the like become ill and they dribble saliva. And the rider gets spots (*sphoṭa*) and a discharge on his scrotum, penis, and rectum. In this case, one prescribes the same therapy as for poisoned massage oil for both the rider and the mount.
- 63cd–65ab When there is poison in snuff (*nasya*) or smoke, the symptom (*liṅga*) is blood coming out of the apertures of the head (*kha*), a headache, a flow of mucus (*kapha*) and impairment of the senses. In such a case, ghee of cows etc., boiled up with their milk and **Himalayan monkshood**, is prescribed, with **henna**, as a cold drink or er-rhine.
- 65cd–66 Flowers lose their fragrance and colour, and wilt. On smelling them, he gets a headache and his eyes fill with water. In this case, the treatment is what was proposed above for vapour (*bāṣpa*) and that which is traditional for face make-up.
- 67–68 When it is in ear-oil, there is degeneration in the ear, and painful swelling. There is also a discharge from the ear and in such a case it needs to be irrigated (*pratipūraṇa*) promptly with ghee and honey. Extracted juice (*svarasa*) of **wild asparagus** and very cold juice of **white cutch tree** are also recommended as something good.¹⁹¹
- 69 When poison is mixed in with eye make-up (*añjana*), he gets tears and

punarnavā
in the N &
K MSS

śrita for
śrta

explain
more

seem to be the meaning, in context. The term was comprehensively discussed by Meulenbeld (2008: 443). Cf. note 280, p. 78.

189 See the description of this condition at 2.13.40 (Su 1938: 323), where the skin on the face is characterized as having pale circular patches that are itchy and have spots.

190 The common plant-name पुनर्नवा is read as पुनर्णवा in both Nepalese witnesses. This unusual form is technically-speaking legal according to Pāṇini 8.4.3, but is not attested in published texts. पुनर्णवा is found rarely in some other Nepalese manuscripts such as the *Brahmayāmala* (a.k.a. *Picumata*, 44.81, transcription thanks to Shaman Hatley), and elsewhere (e.g., in Gaṇapatiśāstrī 1920–25: 20, where it is the name of a constellation).

191 The syntax of the Nepalese version is slightly unclear, but the vulgate has smoothed out the difficulties.

- rheum (*upadeha*), with a burning feeling, pain, faulty vision (*dr̥ṣṭivi-bhrama*), and possibly even blindness.¹⁹²
- 70–71 In this case, one must immediately drink ghee and have it also in an eyewash (*tarpaṇa*) with long pepper. One should have an eye ointment (*añjana*) of the juice of periploca of the woods and have the extract (*niryāsa*) of three-leaved caper, wood apple and periploca of the woods and the flower of marking-nut tree.
- 72–73 Because of poisoned slippers there will definitely be a swelling, numbness (*svāpa*), a discharge (*srāva*) and an outbreak of spots (*sphoṭa*) on the feet. One should clean (*pra√sādh*) footstools together with slippers.
- 74 Ornaments lose their lustre, and they do not shine as they used to. They damage their respective locations with burning, sepsis (*pāka*), and fisting (*avadāraṇa*).¹⁹³
- 75ab One should apply the stated procedure for massage oil (*abhyāṅga*) to poisoned slippers and ornaments.
- 75cd–76 In the case of the affliction (*upasarga*) by poison which has been described above, starting from ‘vapour’ and ending with ‘ornaments,’ the physician should observe the side-effects (*upadrava*) and then prescribe the therapy called the Great Fragrance (*mahāsugandha*) antidote, which I shall describe.¹⁹⁴
- 77–78ab He should prescribe it in drinks, liniments (*ālepana*), errhines (*nasya*), and in eye ointment (*añjana*). Also, he should use sharp purgatives and emetics. If bleeding is present, he should have the indicated veins pierced.
- 78cd–79ab If either purging nut or a fern is tied on to the King’s wrist, then all food that is mixed with poison will be rendered free of poison.¹⁹⁵

Medical difference from Sharma.

example where the vulgate clarifies that these should be used separately; appears to be a gloss inserted into the vulgate text.

The two uses of *prāpta* are hard to translate. *prāptāh* → *kṣipram* is an example of the vulgate banalizing the Sanskrit text to make sense of a difficult passage.

√ *vyadh* not √ *vedh* (also elsewhere and for the ears), causative optative.

192 The term translated as “faulty vision” could also mean “rolling eyes.” “Eye make-up” is normally made of Indian barberry.

193 The reading अवदारुण in MS Kathmandu KL 699 is not attested elsewhere in Sanskrit literature. On “sepsis” for पाक, see Wujastyk 2003b: xlv–xlvi.

194 This antidote is indeed described later, in dramatic terms, at 5.6.14–27 (Su 1938: 581). A recipe with eighty-five ingredients including cow’s bile, it is praised as chief of all antidotes, one that can drag the patient back from the very jaws of death, from even the poisonous fangs of Vāsuki.

195 In early Ayurvedic literature, the plant अजरुहा is mentioned only here and its identity is unknown. It may be a fern of the Nephrodium family, according to Singh and Chuneekar (GVDB: 7). Dalhaṇa, on 5.1.78 (Su 1938: 563), cited a description of the two plants from the little-known authority Uśanas (HIML: IA, 660 et passim) who described अजरुहा as a white root with spots on it that looks like collyrium when it is

79cd–80 He should always keep his heart protected (*hr̥dayāvaraṇa*) when amongst **people who are not his friends**.¹⁹⁶ Before eating he should drink the kinds of ghee called ‘Invincible’ and ‘Immortal’.¹⁹⁷ He should drink ghee (*sarpiṣ*), honey, curds (*dadhi*), milk (*payas*), or cold water.

opposite of
the vulgate
Same as
1.8.89
(As 1980: 79)

81 He should consume monitor lizard, peacock, mongooses, **chital deer**, and **blackbuck** too, that destroy poison, and their juices.

82 As discerning person should add well-crushed **black creeper**,¹⁹⁸ **liquorice**, and sugar to the meats of **monitor lizard** monitor lizard, mongoose and **blackbuck** too.

83 Add sugar and **Himalayan monkshood** to peacock flesh, together with **ginger** And for meat from a **chital deer**, he should add **long pepper**, with **ginger**.

84ab **A cold neem** broth with honey and ghee is wholesome too.

84cd A discerning person should partake of hard and soft foods that counteract poison.¹⁹⁹

85 If poison might have been drunk, a person who has protected his heart should make himself vomit using long pepper, liquorice, honey, sugar, sugarcane juice and water.

The first chapter in the Kalpas.

split; when drunk with sandalwood it causes poison to be digested.

196 The *Carakasamhitā* described ‘protecting the heart’ as drinking several sweet, oily drinks to surround the heart and keep it safe (6.23.46 (Ca 1941: 574)). Ḍalhana explained it as taking a number of anti-toxic medicines, including those listed in the present passage, in order to cover or hide (प्रच्छादन) the heart 5.1.79–81 (Su 1938: 563).

197 These ghee compounds are described in later chapters: see 5.2.47–49 (Su 1938: 566) and 5.6.13 (Su 1938: 581).

198 Or some say turpeth.

199 On this expression, see Yagi 1994.

Kalpasthāna, adhyāya 2

Introduction

This section begins with several lists of poisonous plants. The Sanskrit names for these plants are mostly not standard or familiar from anywhere in Sanskrit or ethnobotanical literature. It remains a historical puzzle why these particular names are so difficult to interpret. However, we are not the first to encounter these difficulties. In the twelfth century, the learned commentator on the text, Ḍalhaṇa, remarked,

In spite of having made the greatest effort, it has been impossible to identify these plants. In the Himalayan regions, Kirātas and Śābaras are able to identify them.²⁰⁰

Ḍalhaṇa also recorded variant readings of these poison names from the manuscripts that he consulted of the lost commentary of Gayadāsa (fl. c. CE 1000). The identities of these poisons have been in doubt for at least a thousand years.²⁰¹ Identifications have in many cases been equally impossible for us today.

One path for exploration in this situation is to attempt to reverse-engineer some identifications by considering the known toxic plants of India.²⁰²

Translation

- 1 And now I shall explain **what should be known** about stationary poisons.²⁰³

²⁰⁰ After *Suśrutasaṃhitā*, *kalpasthāna* 2.5 (Su 1938: 564). From the view of Sanskrit authors, Kirātas and Śābaras were tribal peoples. The eleventh-century author Bhikṣu Govinda, however, cast his treatise as a dialogue with a Kirāṭa king called Madana who was a master of the alchemical art (HIML: IIA, 620).

²⁰¹ See Wujastyk 2003b: 80–81.

²⁰² Valuable reference sources on Indian plant toxicology in general include Pillay 2013: chs. 10, 11 and Barceloux 2008: parts 1.II, 3 and 4.

²⁰³ No reference is made to Dhanvantari (see Birch, Wujastyk, Klebanov, Parameswaran, et al. 2021). “Stationary” here is a term contrasted with “moving,” and signifies plants as opposed to animals and insects.

- 3 It is said that there are two kinds of poisons, stationary (*sthāvara*) and mobile (*jaṅgama*). The former dwells in ten sites, the latter in sixteen places.
- 4 Traditionally, the ten are: root, leaf, fruit, flower, bark, milky sap (*kṣīra*), pith (*sāra*), resin (*niryāsa*), the elements (*dhātu*), and the tuber.
- 5 In that context,
- the eight root-poisons are:²⁰⁴
 1. liquorice (?),²⁰⁵
 2. sweet-scented oleander,²⁰⁶
 3. jequirity,²⁰⁷
 4. false daisy,²⁰⁸
 5. *karatā*,²⁰⁹ and ending with
 6. leadwort (*vidyutśikhā* → *agni-* or *rakta-śikhā?*)ⁱ,²¹⁰
 7. country sarsaparilla (?),²¹¹ and

²⁰⁴ Some South Asian plants with poisonous roots that we would have expected to see in this list include *Croton tiglium*, L., *Calotropis* spp., *Citrullus colocynthus* L. Schrad., and *Ricinus communis* L. (CIPP).

²⁰⁵ Liquorice eaten in excess can be poisonous, but it is unlikely to be the plant intended here. Singh and Chuneekar (GVDB: 124) noted that the poisonous root mentioned in this passage, “remains to be identified.”

²⁰⁶ The roots of sweet-scented oleander are highly toxic, as are most parts of the plant (Pillay and Sasidharan 2019).

²⁰⁷ Jequirity contains a dangerous toxin called Abrin in its seeds and to a lesser extent in its leaves, but apparently not in its roots or bulb. Abrin is not harmful if eaten, but an infusion of the bruised (not boiled) seeds injected or rubbed in the eyes can be fatal (NK: # 6). The dose can be quite small.

²⁰⁸ The plant is usually called just *bhaṅgurā* without the prefix *su-* “good.” However, there is no reported toxicity associated with *E. prostrata*..

²⁰⁹ This poisonous root cannot at present be identified. Similar-sounding candidates include *karkaṭaka*, *karaghāṭa* (emetic nut), and *karahāṭa*, but since this is a prose passage, there would be no reason to alter the word to fit a metre. Monier-Williams et al. (MW: 255) cite an unknown lexical source that equates *karāṭa* (mn.) with safflower (*Carthamus tinctorius*, L.), but this plant does not have a poisonous root.

²¹⁰ The roots of both rose and white leadwort are very toxic.

²¹¹ The text reads masculine *ananta*, which is not a plant name. Gayī’s commentary on 5.2.5 (Su 1938: 564) noted a variant reading of feminine *anantā* in place of *gargaraka*, earlier in the compound. But the feminine *anantā*, country sarsaparilla, is not a poisonous plant.

i *Plumbago zeylanica* (or *rosea?*), L.; see NK #1966, 1967

8. medhshingi,²¹²

- the leaf-poisons include:
 - ‘poison-leaf’ (*viṣapatrikā*)ⁱⁱ,
 - ‘drum-giver’ (*lambaradā*)ⁱⁱⁱ,
 - thorn apple, and
 - big thorn apple;
- the fruits of items like: jequirity (*guñjā*)^{iv}, rūṣkara ()^v, viṣa ()^{vi}, and vedikā ()^{vii}, are
 - kumudavati (*kumadavati*)^{viii},
 - reṇuka (?)^{ix},
 - kurūkaka (?)^x,
 - ‘little bamboo’ (*veṇuka*)^{xi, 213},
 - thorn apple (*karambha*)^{xii},
 - ‘big thorn apple’ (*mahākarambha*)^{xiii},

212 Meulenbeld (1989: 61, n. 3) argued that our text reads a masculine or neuter noun *vijaya*, which never signifies cannabis. However, unlike the vulgate, the unanimous readings of the Nepalese manuscripts give feminine *vijayā*. Nevertheless, even the feminine form only started to signify *Cannabis sativa* L. after the end of the first millennium (Meulenbeld 1989; Wujastyk 2002; McHugh 2021). The *Sauśrutaniḥṣṭu* gives a number of synonyms for *vijayā*, almost none of which have any poisonous parts (Suvedī and Tivārī 2000: 5.77, 10.143). But one of them, *viṣāṇī* (also *meṣaśṛṅgī*), is sometimes equated with *Dolichandrone falcata* (DC.) Seemann (ADPS: 518), a plant used as an abortifacient and fish poison (nadk-1982). This identification is tenuous.

213 Not poisonous.

ii unknown; see ?

iii unknown; see ?

iv ; see

v ; see

vi ; see

vii ; see

viii unknown; see ?

ix ?; see *Piper aurantiacum* Wall. (NK: #1924) is not poisonous.

x ?; see ?

xi *Bambusa bambos*, Druce?; see NK #307

xii *Datura metel*, L.; see AVS 2.305 (cf. *Abhidhānamañjarī*), NK #796 ff., Potter 292 f., ADPS 132.

xiii *Datura metel*, L.?; see AVS 2.305 (cf. *Abhidhānamañjarī*), NK #796 ff., Potter 292 f., ADPS 132.

- ‘pleaser’ (*nandanā*)^{xiv},
- ‘crow’ (*kāka*)^{xv},
- the flower-poisons include those of:
 - rattan (*vetra*)^{xvi},
 - wild chinchona (*kādamba*)^{xvii},
 - black pepper (*vallīja* → *marica*)^{xviii},
 - thorn apple (*karambha*)^{xix}, and
 - big thorn apple (*mahākarambha*)^{xx};
- the seven bark, pith (*sāra*) and resin (*niryāsa*) poisons are:
 - ‘gutboiler’ (*antrapācaka*)^{xxi},
 - ‘blade’ (*kartarīya*)^{xxii},
 - wild mustard (*saurīyaka*)^{xxiii},
 - emetic nut (*karaghāṭa* → *karahāṭa?* → *madana*)^{xxiv},
 - thorn apple (*karambha*)^{xxv},
 - wild asparagus (*nandana* → *bahuputrā?*)^{xxvi}, and
 - munj grass (*nārācaka*)^{xxvii, 214}
- the three milky sap (*kṣīra*)-poisons are:

214 The bark of wild asparagus (*Asparagus racemosus*, Willd.) is toxic.

xiv ?; see ?

xv ?; see ?

xvi Calamus rotang, L.; see AVS 1.330, NK #413

xvii Anthocephalus cadamba, Miq.; see NK #204

xviii Piper nigrum, L.?; see NK #1929; Rā.6.115, Dha.4.85, Dha.2.88

xix Datura metel, L.; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f., ADPS 132.

xx Datura metel, L.?; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f., ADPS 132.

xxi unknown; see ?

xxii unknown; see ?

xxiii Cleome viscosa, L.? (cf. Rā.4.144); see AVS 2.116, NK #615

xxiv Randia dumetorum, Lamk.; see NK #2091

xxv Datura metel, L.; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f., ADPS 132.

xxvi Asparagus racemosus, Willd.; see ADPS 441, AVS 1.218, NK #264, IGP 103, IMP 4.249ff., Dymock 482ff.

xxvii Saccharum bengalense, Retz.?; see NK #2184

- purple calotropis (*kumudaghñī* → *arka*?)^{xxviii, 215}
- oleander spurge (*snuhī*)^{xxix}, and
- ‘web-milk’ (*jālakṣīri*)^{xxx};
- the two element (*dhātu*)-poisons are:
 - ‘foam-stone’ (*phenāśma*)^{xxxi}, and
 - orpiment (*haritāla*)^{xxxii, 216}
- the thirteen tuber-poisons are:
 - jequirity (*kālakūṭa*)^{xxxiii, 217}
 - wolfsbane (*vatsanābha*)^{xxxiv},
 - Indian mustard (*sarṣapa*)^{xxxv},
 - leadwort (*pālaka* → *citraka*)^{xxxvi},
 - ‘muddy’ (*kardama*)^{xxxvii}, the

215 The name of this poison, *kumuda-ghñī*, means ‘lotus killer’. In Sanskrit literature, the *kumuda* lotus is associated with the moon, since it blossoms by night. Since the sun causes this lotus to close, it is therefore an ‘enemy’ of the lotus. One of the chief words for the sun, *arka*, is also the name of *Calotropis gigantea*, which indeed has a milky juice which is a violent purgative, poison and abortifacient.

216 Dutt (Dutt: 38–42) conjectured that ‘foam-stone’ may be impure white arsenic obtained by roasting orpiment.

217 The much later (perhaps sixteenth century) alchemical *Rasaratnasamuccaya* of pseudo-Vāgbhaṭa (21.14) says that the *kālakūṭa* poison, here translated as ‘jequirity’, is similar to ‘*kākacañcu*’ or ‘Crow’s Beak’, which is indeed a name for the plant jequirity or *Abrus precatorius*, L., more commonly called *guñjā* (not to be confused with *gañjā*). The black seed-pod is described as having a ‘sharp deflexed beak’ in botanical descriptions, so the Sanskrit name is quite graphic and appropriate. The poisonous scarlet seeds of *A. precatorius* can have a distinct black dot or tip, which could perhaps be translated ‘*kāla-kūṭa*’, or ‘Black Tip’.

The *Rājanighaṇṭupariśiṣṭa* (9.35) gives *kālakūṭaka* as a synonym for *kāraskara*, or *Strychnos nux-vomica*, L., whose seeds are notoriously poisonous.

xxvi *Calotropis gigantea*, (L.) R. Br.; see ADPS 52, AVS 1.341, NK #427, Potter 63

xxix *Euphorbia neriifolia*, L., or *E. antiquorum*, L.; see ADPS 448, AVS (2.388), 3.1, NK #988, IGP 457b

xxx unknown; see ?

xxxi unknown; see ?

xxxii *Arsenii trisulphidum*; see NK v. 2, p. 20 ff.

xxxiii *Abrus precatorius*, L.? Cf. RRS 21.14.; see AVS 1.10, NK #6, Potter 168.

xxxiv *Anonitum napellus*, L.; see AVS 1.47, NK #42, Potter 4 f.

xxxv *Brassica juncea*, Czern. & Coss.; see AVS 1.301, NK #378

xxxvi *Plumbago zeylanica* (indica? rosea?), L.; see Rā. 6.124, ADPS 119, NK #1966, 1967

xxxvii unknown; see ?

- ‘Virāṭa’s plant’ (*vairāṭaka*)^{xxxviii},
- nutgrass (*mustaka*)^{xxxix},
- atis root (*śṛṅgīviṣa*)^{xl},
- sacred lotus (*prapuṇḍarīka*)^{xli},
- radish (*mūlaka*)^{xlii},
- ‘alas, alas’ (*hālāhala*)^{xliii},
- ‘big poison’ (*mahāviṣa*)^{xliv}, and
- galls (*karkaṭa*)^{xlvi}.²¹⁸

Thus, there are fifty-five stationary poisons.

- 6 There are believed to be four kinds of wolfsbane, two kinds of *mustaka*, and six kinds of Indian *sarṣapa*. But the rest are said to be unique types.

The effects of poisons

- 7–10 People should know that root-poisons cause writhing (*udveṣṭana*), ranting (*pralāpa*), and delirium (*moha*), and leaf-poisons cause yawning, writhing, and wheezing (*śvāsa*).
Fruit-poisons cause swelling of the scrotum, a burning feeling and writhing. Flower-poisons will cause vomiting, distension (*ādhmāna*) and sleep (*svāpa*).

218 Leadwort root is a powerful poison. Nutgrass is tuberous, but non-toxic. Atis has highly toxic tuberous roots. Neither sacred lotus nor galls are toxic. The ‘alas, alas’ poison (*hālāhala*) is the mythical poison produced from the churning of the ocean at the time of creation: it occurs in medical texts such as the present one, and commentators identify it with one or other of the lethal poisons such as wolfsbane or jequirity. Agrawal (1963: 126) makes the intriguing suggestion that the word *hālāhala*, possibly to be identified with Pāṇini’s *hailihila* (P.6.2.38), may be of Semitic origin, although his evidence seems uncertain (Steingass (1930: 1506a) cites Persian *halāhil* ‘deadly (poison)’ as a loan from Sanskrit). KEWA: iii.585 also cites a claim for an Austro-Asiatic origin for the word.

xxxviii unknown; see ?

xxxix *Cyperus rotundus*, L.; see ADPS 316, AVS 2.296, NK #782

xl *Aconitum heterophyllum*, Wall. ex Royle; see AVS 1.42, NK #39

xli *Nelumbo nucifera*, Gaertn.; see Dutt 110, NK #1698

xlii *Raphanus sativus*, L.; see NK #2098

xliii unknown; see Cf. Soḍhalanighantu p.43 (sub bola) = stomaka = vatsanābha

xliv unknown; see ?

xlvi *Rhus succedanea*, L.; see NK #2136

The consumption of poisons from bark, pith (*sāra*) and resin (*niryāsa*) will cause foul breath, hoarseness (*pāruṣya*), a headache, and a discharge of phlegm (*kapha*).²¹⁹

The milky sap (*kṣīra*)-poisons make one froth at the mouth, cause loose stool, and make the tongue feel heavy.²²⁰ The element (*dhātu*)-poisons give one a crushing pain in the chest, make one faint and cause a burning feeling on the palate.

These poisons are classified as ones which are generally speaking lethal after a period of time.

11–17 Symptoms of tuber poisoning

The tuber-poisons, though, are severe. I shall talk about them in detail. With jequirity (*kālakūṭa*)^{xlvi}, there is numbness and very severe trembling. With wolfsbane (*vatsanābha*)^{xlvi}, there is rigidity of the neck, and the faeces, and urine become yellow.

With *sārṣapa* (*sārṣapa*),²²¹ the wind becomes defective (*vātavaiguṇya*), there is constipation (*ānāha*), and lumps (*granthi*) start to appear. With leadwort (*pālaka* → *citraka*)^{xlvi}, there is weakness in the neck, and speech gets jumbled.²²²

With the one called ‘muddy’ (*kardama*)^{xlvi}, there is a discharge (*praseka*), the faeces pour out, and the eyes turn yellow. The ‘Virāṭa’s plant’ (*vairāṭaka*)¹ causes pain in the body and illness in the head. Paralysis

219 At 1.2.6 (Su 1938: 11), Ḍalhaṇa glosses hoarseness (*pāruṣya*) as *vāgrūkṣatā*, “a rough, dry voice.”

220 At 6.54.10 (Su 1938: 773), Ḍalhaṇa glosses loose stool (*viḍbheda*) as *dravapurīṣatā*, “having liquid stool.”

221 *Sārṣapa* would normally mean “connected with mustard,” and excessive consumption of mustard oil can be harmful. However, the *Sauśrutaniḥṣṭu* (156) gives *rakṣoghṇā* as a synonym for *sārṣapā*. This can be *Semecarpus anacardium*, L.f., which has some poisonous parts.

222 The verse in the Nepalese version ends with a plural verb that does not agree with the dual of the sentence subject.

xlvi *Abrus precatorius*, L.? Cf. RRS 21.14.; see AVS 1.10, NK #6, Potter 168.

xlvi *Aconitum napellus*, L.; see AVS 1.47, NK #38, Potter 4 f.

xlvi *Plumbago zeylanica* (indica? rosea?), L.; see Rā. 6.124, ADPS 119, NK #1966, 1967

xlvi unknown; see ?

1 unknown; see ?

- of one's arms and legs and trembling are said to be caused by mustaka (*mustaka*).²²³
- 15b With great aconite (*mahāviṣa*) one's limbs grow weak, there is a burning feeling and swelling of the belly.²²⁴
- 16a With puṇḍarīka (*puṇḍarīka*), one's eyes go red, and one's belly becomes distended.²²⁵
- 16b With mūlaka (*mūlaka*), one's body is drained of colour and the limbs are paralysed.²²⁶
- 17a With hālāhala (*Aconite*), a man turns a dark colour (*dhyāma*), and gasps.²²⁷
- 17b With atis root (*śṛṅgīviṣa*)^{li}, one gets violent knots (*granthi*) and stabbing pains in the heart.²²⁸
- 18a With markāṭa (*monkey*), one leaps up, laughs, and bites.²²⁹
- 18b-19a Experts have said that one should know that the thirteen highly potent tuber-poisons, which are mentioned here, have ten qualities (*guṇa*).
- 19b-20a The ten are:

-> ativiṣa

Look up
the ca. ref-
erence.

- 223 The substitution in MS NAK 5-333 affecting 15cd is caused by an eye-skip to the word *viṣeṇa* in 2.17. *Mustaka* commonly refers to *Cyperus rotundus*, L.; the root is used in āyurveda but is not poisonous. However other dictionaries list *mustaka* amongst serious poisons, for example *Rājanighaṇṭu* (22 v. 42) and *Rasaratnasamuccaya* 16, v. 80. However, its ancient identity is still doubtful.
- 224 The poisonous root great poison (*mahāviṣa*) is not clearly identifiable, although *viṣa* is commonly aconite. Verse 6 above notes that there are several kinds of aconite.
- 225 The word *puṇḍarīka* very commonly means sacred lotus, *Nelumbo nucifera*, Gaertn. The entire plant is edible and cannot be the poison intended here. Singh and Chuneekar (GVDB: 252) noted that this poison is unidentified and that it is also listed as a poison in *Carakasaṃhitā*ci.23.12.
- 226 The word *mūlaka* very commonly means the radish, *Raphanus sativus*, L. The root is edible and cannot be the poison intended here. Singh and Chuneekar (GVDB: 317) noted that this poison is unidentified.
- 227 Identification of *hālāhala* is uncertain. It may simply be a mythical poison, or its specific identity may have been lost over the centuries. Late *nighaṇṭu*s identify it as *stomaka* = *vatsanābha*, i.e., *Aconitum napellus*, L. (*Soḍhalanighaṇṭu* p.43). Ḍalhaṇa on 5.2.17 (Su 1938: 564) interprets our "gasps" as "the man laughs and grinds his teeth." But this gloss is probably displaced and intended to apply to verse 2.18.
- 228 Singh and Chuneekar (GVDB: 407) noted that *vatsanābha* and *śṛṅgīviṣa* are two different varieties of poisonous Aconites that are difficult to distinguish.
- 229 Singh and Chuneekar (GVDB: 299) said of *markāṭa*, "an unidentified vegetable poison." Cf. Suvedī and Tivārī 2000: v.36 for synonyms that lead to the non-toxic jujube tree.

li *Aconitum heterophyllum*, Wall. ex Royle; see AVS 1.42, NK #39

- dry (*rūkṣa*),
 - hot,
 - sharp,
 - rarified (*sūkṣma*),
 - fast-acting,
 - pervasive (*vyavāyin*),
 - expansive (*vikāsin*),
 - limpid (*viśada*),
 - light, and
 - indigestible.
- 20b Because of dryness, it may cause inflammation of the wind; because of heat it inflames the choler and blood. Because of the sharpness it unhinges the mind, and it cuts through the connections with the sensitive points (*marman*). Because it is rarified it can infiltrate and distort the parts of the body.²³⁰
- 22 Because it is fast-acting it kills quickly, and because of its pervasiveness it affects one's whole physical constitution (*prakṛti*).²³¹ Because of its expansiveness it enters into the humour (*doṣa*)s, bodily constituents (*dhātu*)s, and even the impurities. Because it is limpid it overflows, and because it is light it is difficult to treat. Because it is indigestible it is hard to eliminate. Therefore, it causes suffering for a long time.
- 24 Any poison that is instantly lethal, whether it be stationary, mobile, or artificial, will be known to have all ten of these qualities.

Slow-acting poison

- 25cd–26 A poison that is old or destroyed by anti-toxic medicines, or else dried up by blazing fire, wind, or sunshine, or which has just lost its qualities by itself,²³² becomes a slow-acting poison (*dūṣīviṣa*).²³³ Because it has lost its potency it is no longer perceived. Because it is surrounded by phlegm (*kapha*) it has an aftermath that lasts for a very long time.

²³⁰ We read the active *vikaroti* with Ḍalhaṇa against the transmitted passive *vikriyeta*, since it must be the parts of the body that are distorted, not the poison.

²³¹ Ḍalhaṇa on 5.2.22 (*Su 1938*: 565) explained this as “takes the form of pervading the whole body (*akhiladehavyāptirūpam*).”

²³² Ḍalhaṇa specified that this refers to the ten qualities that are mentioned above (5.2.26 (*Su 1938*: 565)).

²³³ Ḍalhaṇa cited this verse at 1.46.83 (*Su 1938*: 222) while explaining *dūṣīviṣa*.

- 27 If he is suffering from this, the colour of his stools changes, he gets sourness and a bad taste with great thirst. Stammering and close to death, wandering about, he may feel faint, giddy, and aroused.²³⁴
- 28 If it lodges in his stomach (*āmāśaya*), he becomes sick because of wind and phlegm; if it lodges in his intestines (*pakvāśaya*), he becomes sick because of wind and choler. A man's hair and limbs fall away and he looks like a bird whose wings have been chopped off.
- 29a–c If it lodges in one of the body tissues such as chyle (*rasa*), it causes the diseases arising from the body tissues, that have been said to be wrong.²³⁵ and it rapidly becomes inflamed on days that are nasty because of cold and wind.
- 29d–31 Listen to its initial symptoms (*liṅga*): it causes heaviness due to sleep, yawning, disjunction (*viśleṣa*) and horripilation (*harṣa*) and a bruising of the limbs (*aṅgamarda*).²³⁶ Next, it causes intoxication from food (*annamada*) and indigestion, loss of appetite (*arocaka*), the condition of having a skin disease (*koṭha*) with round blotches (*maṇḍala*),²³⁷ **dwindling away (*kṣaya*) of flesh**, swelling of the feet, hands, and face, **the fever called *pralepaka***, vomiting and diarrhoea.²³⁸ The slow-acting poison might cause **wheezing, thirst and fever, and it might also cause distension of the abdomen**.
- 32 These various disorders are of many different types: one poison may produce madness, while another one may cause constipation (*ānāha*), and yet another may ruin the semen. One may cause **emaciation**, while another pallid skin disease (*kuṣṭha*).
- 33 Something is “corrupted” by repetitively keeping to bad locations, times, foods, and sleeping in the daytime. Or, traditionally, “corrupting poison” (slow-acting poison (*dūṣī-viṣa*)) is so called because it may corrupt (*dūṣayet*) the body tissue (*dhātu*)s.

234 Similar symptoms of slow-acting poison are described at 2.7.11–13 (Su 1938: 296) in the context of contamination dropsy (*duṣyodara*). This this may explain why the vulgate inserted reference to this disease at this point.

235 The expression *ayathāyathoktān* “stated to be unsuitable” is hard to understand here, but is clearly transmitted in the Nepalese version.

236 Ḍalhaṇa 5.2.30ab (Su 1938: 565) glossed “disjunction” as the loss of function of the joints in regard to movement.

237 The last ailment could perhaps be ringworm.

238 The *pralepaka* fever was described by Ḍalhaṇa, at 6.39.52 (Su 1938: 675), as an accumulation of phlegm in the joints. Its symptoms are described in 6.39.54

34- The stages of toxic shock

- In the first shock of having taken a stationary poison, a person's tongue becomes dark brown and stiff, he grows faint, and panics.
- 35 In the second, he trembles, feels exhausted, has a burning feeling, as well as a sore throat. When the poison reaches the stomach (*āmāśaya*), it causes pain in the chest (*hṛd*).
- 36 In the third, his palate goes dry, he gets violent pain (*śūla*) in the stomach (*āmāśaya*), and his eyes become weak, swollen and yellow.
- 37 In the fourth shock, it causes the intestines and stomach to be exhausted (*sāda*), he gets hiccups, a cough, a rumbling in the gut (*antra*), and his head becomes heavy too.
- 38 In the fifth he dribbles phlegm (*kapha*), goes a bad colour, his **ribs crack** (*parśvabheda*), all his humours are irritated, and he also has a pain in his intestines (*pakvādhāna*).
- 39a In the sixth, he loses consciousness and he completely loses control of his bowels.
- 39b In the seventh, there are breaks in his shoulders, back and loins, and he stops breathing.²³⁹

Remedies for the stages of slow poisoning

- 40 In the first shock of the poison, the physician should make the man, who has vomited and been sprinkled with cold water, drink an antidote (*agada*) mixed with honey and ghee.
- 41a In the second, he should make the man who has vomited and been purged drink as before;
- 41b on the third, drink an antidote and a beneficial nasal medicine (*nasya*) as well as an eye salve (*añjana*).
- 42a In the fourth, the physician should make him drink an antidote that is salt with a little oil.²⁴⁰
- 42b In the fifth, he should be prescribed the antidote together with a decoction (*kvātha*) of honey and **liquorice**.

²³⁹ Here at 5.2.24 (Su 1938: 566) Ḍalhaṇa glossed *sannirodha* as “complete cessation, i.e., of breath” (*sannirodhaḥ samyānnirodhaḥ, ucchvāsasya iti śeṣaḥ*). The manuscripts all read *skanda* where *skandha* must be intended; this confusion is known from Buddhist Hybrid Sanskrit (Edgerton 1953: 608).

²⁴⁰ At 6.52.30 (Su 1938: 769) Ḍalhaṇa noted that *sindhu* can be interpreted as salt (*saindhava*).

- 43 In the sixth, the cure (*siddhi*) is the same as for diarrhoea. And in the seventh, he perishes.²⁴¹
- 44 In between any one of these shocks, once the above treatment has been done, he should give the patient the following cold gruel (*yavāgū*) together with ghee and honey, that will take away the poison.
- 45–46 A gruel (*yavāgū*) made of the following items in a stewed juice (*niḥkvātha*) destroys the two poisons: luffa gourd,²⁴² wild celery,²⁴³ velvet-leaf, sunflower,²⁴⁴ heart-leaved moonseed, myrobalan siris, and selu plum, white siris, the two kinds of turmeric,²⁴⁵ and the two kinds of poison berry,²⁴⁶ hogweed, peas, the three heating spices, the two kinds of In-

²⁴¹ The vulgate text here is quite different, recommending that the patient have medicated powder blown up his nose. It may be possible to detect the evolution of the Nepalese अवसीदेत् to the vulgate's अवपीडश्. The vulgate version is hard to construe, and we see Ḍalhaṇa struggling to interpret it in his commentary on 5.2.43ab (Su 1938: 566). This sternutatory is, however, recommended in the Nepalese version at 5.5.30ab (Su 1938: 576), for the seventh shock of poisoning by a striped snake (*rājimat*). It is possible the text migrated from that location to this.

Another difference at this point is that the Nepalese version also does not support the vulgate's passage on the crow's foot (*kākapada*) therapy (Wujastyk 2003b: 145, n.106). The same is the case at 5.5.24 (Su 1938: 575) and the clear description at 5.5.45 (Su 1938: 577), in neither of which is the therapy supported in the Nepalese version. This therapy seems unknown to the Nepalese transmission. Perhaps the therapy migrated into the vulgate *Suśrutasamhitā* from the *Carakasamhitā* 6.23.66–67 (Ca 1941: 574).

²⁴² At 4.10.8 (Su 1938: 449) Ḍalhaṇa glossed कोशवती as देवदाली and at 4.18.20 (Su 1938: 472) as कटुकोशातकी, vocabulary pointing to *Cucumis cylindrica*, *Cucumis actangula* or *Luffa echinata*. See glossary under *luffa*.

²⁴³ A plant often cited in *Suśrutasamhitā*, but rarely in *Carakasamhitā* (GVDB: 4). Ḍalhaṇa glossed it here, 5.2.45 (Su 1938: 566), as *ajamodā*, wild celery, but noted that others consider it to be *moraṭa*, rajmahal hemp. There is considerable complexity surrounding the identification of *moraṭa*/*mūrvā* and related synonyms (GVDB: 314–316). Taking *agnika* as a short reference to *agnimantha*, often identified as migraine tree, might be plausible, since that is antitoxic or anti-inflammatory, but such a short reference is not known elsewhere.

²⁴⁴ At 5.2.45 (Su 1938: 566) Ḍalhaṇa said that this plant has leaves like the *paṭola*, pointed gourd, Singh and Chuneekar (GVDB: 280, 443) argued plausibly that this is a synonym for *arkapuṣpī*, panacea twiner, as Ḍalhaṇa also stated in 1.45.120 (Su 1938: 206), and the leaves of *Holostemma* and *Trichosanthes* are indeed strikingly similar. The appearance of the plant, a creeper with sun-like flowers, fits the name. But there remains much controversy about the identities of these candidates (e.g., ADPS: 195–198).

²⁴⁵ I.e., turmeric and Indian barberry.

²⁴⁶ I.e., poison berry and yellow-berried nightshade.

dian sarsaparilla²⁴⁷ and blue water-lily.

²⁴⁷ I.e., country sarsaparilla and black creeper.

The invincible ghee

- 47–49 There is a famous ghee called “Invincible” (*ajeya*). It rapidly destroys all poisons but is itself unconquered. It is prepared with a mash (*kalka*) of the following plants: liquorice, crape jasmine, costus, deodar, peas, Indian madder, cardamom and cherry, cobra’s saffron, blue water-lily, sugar, embelia, sandalwood, cassia cinnamon, beautyberry, rosha grass, the two turmeric²⁴⁸ the two Indian nightshades,²⁴⁹ the two kinds of Indian sarsaparilla,²⁵⁰ beggarweed, and heart-leaf sida.

Curing the ‘slow-acting’ poison

- 50–52 Someone suffering from “slow-acting poison (*dūṣṭviṣa*)” should be well sweated, and purged both top and bottom. Then he should be made to drink the following eminent antidote which removes “slow-acting poison:”
Take long pepper, rosha grass, spikenard, lodh tree, cardamom, natron, scented pavonia, red chalk, as well as gold, and pondweed.
This antitoxin, taken with honey, eliminates slow-acting poison. It is called the “enemy of slow-acting poison (*dūṣṭviṣāri*),” and it is not prohibited in other situations.
- 53–54 If there are any other side-effects (*upadrava*), such as fever, a burning feeling, hiccups, constipation (*ānāha*), depletion of the semen, distension, diarrhoea, fainting, skin problems, bellyache (*jaṭhara*), madness, trembling, then one should treat each one in its own terms, using anti-toxic medicines.
- 55 For a prudent person, the slow-acting poison can be cured (*sādhya*) immediately. It is treatable (*yāpya*) if it is of a year’s standing. Other than this, it should be avoided for the person who eats unwholesome things.

²⁴⁸ I.e., turmeric and Indian barberry.

²⁴⁹ I.e., poison berry and yellow-berried nightshade.

²⁵⁰ I.e., country sarsaparilla and black creeper.

Kalpasthāna, adhyāya 3

Introduction

Translation

- 1 And now we shall explain the rule (*kalpa*) that is the required knowledge about mobile poisons.²⁵¹
- 3 The full explanation about the sixteen carriers (*adhiṣṭhāna*) of the mobile poisons, that have been mentioned by me in brief, will be stated.²⁵²
- 4 In that context, they are:²⁵³
 - gaze and breath,
 - teeth, nails, and bites
 - urine and faeces,
 - **menstrual blood**,
 - semen,
 - **tail**,
 - **contact with saliva**,
 - nipping with the mouth (*mu-*
 - fart (*avaśardhita*),²⁵⁴
 - **anus**,²⁵⁵
 - bones,
 - bile,
 - bristles (*śūka*), and
 - corpses.
- 5 In that context,

Come back to the issue of “kalpa”. Look up passages in the Kośa.

location of the poison	creatures ²⁵⁶
in their breath and gaze	divine snakes
in their fangs	the ones on earth ²⁵⁷

²⁵¹ In contrast to stationary, plant poisons. No reference is made to Dhanvantari (see Birch, Wujastyk, Klebanov, Parameswaran, et al. 2021).

²⁵² “Carrier” for base, foundation (*adhiṣṭhāna*) aims to capture the idea that the author will describe the creatures in which poisons inhere.

²⁵³ The content of this section is presented as a table, for clarity for the contemporary reader and mindful of the theoretical issues surrounding notational variation, including the “symbolic rewriting” and the modification of “expressive capacities” discussed by Sarukkai (2016: 321 ff). For further discussion, see Wujastyk 2021a: 81–83.

²⁵⁴ This interpretation comes from Ḍaḥaṇa on 5.3.4 (Su 1938: 567), but he reads विशर्धित.

²⁵⁵ Ḍaḥaṇa on 5.3.4 (Su 1938: 567) noted this reading.

²⁵⁶ Many of these names are mere dubious placeholders.

²⁵⁷ Ḍaḥaṇa on 5.3.5 (Su 1938: 567) cited the otherwise unknown authority Sāvitra on the topic of poisonous snakes (HIML: ???, ???).

<i>location of the poison</i>	<i>creatures</i>
in their nails, mouths and fangs	cats, dogs, monkeys, men (<i>nara</i>), ²⁵⁸ crocodiles, frogs, ‘cook-fish’ (<i>pākamatsya</i>), ²⁵⁹ monitor lizards, cone snails (<i>śambūka</i>), ‘poisonous snakes’ (<i>pracalāka</i>), ²⁶⁰ geckos (<i>grhagoḍikā</i>), ²⁶¹ four-footed insects and others
in their urine and faeces	lice (<i>kiṭīpa</i>), ‘flat insects’ (<i>piccitā</i>), ‘orange-dwellers’ (<i>kaṣāyavāsika</i>), ‘pepper snakes’ (<i>sarṣapaka</i>), ‘angry beetles’ (<i>toṭaka</i>), dung beetles (<i>varcaḥkīṭa</i>), and ‘pot insects’ (<i>kauṇḍinya</i>)
in their semen	mice
in their stings (<i>śūla</i>)	scorpions, ‘earth scorpions’ (<i>viśvambhara</i>), wasps (<i>varaki</i>), ²⁶² fish, crabs (<i>uccīṭiṅga</i>), and ‘wing-scorpions’ (<i>patravṛścika</i>)
in their saliva, nails, urine, feces, blood, semen and fangs	spiders
in the bites of their mouths	flies, wasps (<i>kaṇabha</i>) and leeches
in the bites of their mouths, in their fangs, faces, †, farts, anuses and feces	‘speckle-heads’ (<i>citraśīrṣa</i>), ‘lids’ (<i>śārava</i>), ‘bellied’ (<i>kuṣṣita</i>), ‘wood-enemies’ (<i>dārukāri</i>), ‘liquors’ (<i>medaka</i>), and ‘darts’ (<i>śārikā</i>).

258 Probably dittography from the previous word, monkey (*vānara*). But it is supported in both Nepalese witnesses, so it must go back to an earlier exemplar.

259 MS KL 699 separates the words पाक and मत्स्य with a *daṇḍa*, indicating that the scribe thought they were separate terms. Ḍalhaṇa thought this was a kind of fiery insect (5.3.5 (Su 1938: 567)).

260 *Arthaśāstra* 14.1.14, 23 (Olivelle 2013: 448), where it might also be a chameleon, but the latter are not venomous.

261 The scribe of MS NAK 5-333 noted in the margin that some of his sources read गल-गोडिका, which is the name of a snake known also in the *Carakasamhitā* and elsewhere in literature. Hemacandra’s *Abhidhānacintāmaṇi* (4.364) mentions that गृहगोडिका and गृहगोलिका are synonyms (Rādhākānta Deva 1876: 691a, *sub māṇikyā*).

262 वरटी is a wasp; वरकि in the Nepalese MSS may be an alternant of this word. Ḍalhaṇa on 5.3.5 (Su 1938: 568) remarked that some interpreted वरकिमत्स्य as two items, “wasp and fish,” others as a single one, “wasp-fish.”

Table 3: Passage 5, expressed in tabular format.

- 6 The enemies of the king pollute the waters, roads and foodstuffs in enemy territory. The experienced physician, who has learned how to purify things, should clean up those polluted things.
- 7 Polluted water is slimy and smells of tears.²⁶³ It is covered with froth and covered with streaks. The frogs and fish die, the birds are crazed and, along with the wetland creatures, they wander about aimlessly.
- 8 Men, horses and elephants who swim in it experience vomiting, delusion, fever, swelling and sharp pains.²⁶⁴ He should try to purify that polluted water, after curing their ailments.
- 9 And so, he should burn axlewood and garjan oil tree, as well as corky coral tree, with crimson trumpet-flower tree and small-flowered crape myrtle and weaver's beam tree, and with golden shower tree and white catch tree. Then he should sprinkle that ash, cold, on the waters.
- 10–11 And in the same way, putting a handful of the ash in a pot, one may also purify water that one wants.
If any one of the limbs of cows, horses, elephants, men or women, touch a place on the ground that enemies have spoiled with poison, or a ford or rock or a flat surface, then it swells up and burns and its hair and nails fall out on that place.²⁶⁵
- 12 In that situation, he should grind up country sarsaparilla together with all the aromatic items, with alcoholic drinks. And then he should

²⁶³ अश्रु normally means “tears,” but rarely means “blood.”

²⁶⁴ On the polysemy of elephant/snake (*nāga*), see Semeka-Pankratov 1979.

²⁶⁵ “Swells up” translates an unclear reading that was probably श्यति, which may be an irregular form of √श्रु श्रा, श्वि (see Whitney 1885: 175–176).

- sprinkle the paths that need to be used with waters mixed with mud.²⁶⁶
And if there exists another path, he should go by that.²⁶⁷
- 13 When grasses and foods are polluted, people collapse, fall unconscious. And others vomit. They get loose stool (*viḍbheda*) or they die. One should apply to them the therapy as described.
- 14–15 Alternatively, one should wipe various musical instruments with antidotes that remove poison and then play them. What is called the most excellent paste for a musical instrument is **certain minerals**²⁶⁸ together with **gold and sarsaparilla**, and a portion of of **nutgrass** equal to that, together with the bile called “brown cow”.²⁶⁹ By the sound of the musical instrument, even terrible poisons that may be present at that place are destroyed.
- 16 If there is smoke or wind that is affected by poison then birds are dazed and fall to the ground. People get coughs, colds, and head illnesses, and acute eye diseases.²⁷⁰
- 17 The smoke and air can be purified by putting into the air: **lac, turmeric, Himalayan monkshood, and myrobalan**, with **Himalayan mayapple, costus, cardamom**,²⁷¹ and **peas, and beautyberry**.

266 Our “alcoholic drinks” translates सुरा. For a discussion of this term at our period see McHugh 2021: 37–39 *et passim*.

267 Ḍalhaṇa on 5.3.12 (Su 1938: 568) cited a similar reading for the fourth pāda, but with a negative particle, “and if there is no other way, one should go by that.”

268 “Certain minerals” translates तारावितार, the unanimous reading of the Nepalese witnesses. But the meaning of this expression is not clear and may even refer to plants, like the other ingredients. The vulgate reads तारः सुतारः, which is also not very clear. However, Ḍalhaṇa on 5.3.14 (Su 1938: 568) identified these as “silver” and “mercury.” This is highly unlikely to be a correct understanding of the passage. Historically, mercury is not naturally present in the South Asian peninsula (Watt_{Dict}: 5, 233) and the word पारद that Ḍalhaṇa used is probably a loan-word from Persian (sub *paranda*, *par-randa* Steingass 1930: 244b). Mercurial compounds are not reliably attested in South Asia until two or three centuries after the composition of the *Suśrutasaṃhitā* at the earliest. The currently available “śāstric” recension of the *Arthaśāstra* that is datable to 175–300 CE (Olivelle 2013: 29–31) does not mention mercury (*ibid*, 534). See further the study by Wujastyk (2013a: 17, *et passim*).

269 सुरेन्द्रगोप and कुरुविन्द are both uncertain, see index. Ḍalhaṇa’s opinion has been followed here, but it seems fair to say that all commentators were guessing.

270 The syntax of this verse is somewhat loose; the vulgate has regularized it, smoothing out the difficulties.

271

write footnote: don’t repeat
 ativṛṣā; vulgate similar to H.

The origin of poison

- 18 As it is told, the arrogant demon called Kaiṭabha created an obstacle for lotus-born Brahmā, at the very time that he was creating these creatures.²⁷²
- 19 Pitiless Fury took a body and burst out of the mouth of furious Brahmā's store of fiery energy.²⁷³
- 20 He burned that great, thundering, apocalyptic demon. Then, after bringing about the annihilation of that demon, his amazing fiery energy increased.
- 21 And so, there was a sinking down (*viṣāda*) of the Daityas. Observing that, it was named "poison (*viṣa*)" because of its ability to produce a "sinking down."
- 22 After that, the Lord created beings and subsequently made that fury enter into creatures still and moving.
- 23–24 Water that falls from the sky to the earth has no obvious flavour. The savour of the different places it lands on enters into it. In the same way, whatever substance a poison reaches, it establishes itself there and by its nature it takes on that substance's savour.²⁷⁴
- 25 Generally speaking, in a poison, all the qualities are really sharp. For this reason, every poison is known to irritate all of the humours.
- 26 Irritated and afflicted by the poison, they leave their natural functions. Poison does not get digested, so it blocks the breaths.²⁷⁵
- 27 Breathing is obstructed because its pathway is blocked by phlegm. Even if life continues, a man remains without consciousness.
- 28 Similar to semen, the poison of all angry snakes pervades the whole body, and goes to the limbs like semen because of being stirred up.
- 29 The fang of snakes is like a hook. When it gets there, it sticks inside

272 At this point, the text seems to make a new beginning to the topic of toxicology, as if starting a new chapter. It is notable that no reference is made here to the famous origin story of poison in the churning of the primal milk ocean; for discussion of the sources of this account, see Bedekar 1967. For reflections on this passage, connecting it with Rudra and the *Śatapathabrāhmaṇa*, see Mānasa-taraṅgiṇī 2019.

273 "Fury" is here anthropomorphised.

274 The scribal emendation in MS Kathmandu NAK 5-333 of नियच्छति to निगच्छति suggests that the scribe had more than one manuscript before him, one of them representing the reading of the vulgate recension.

275 Probably a reference to the five breaths. Ḍalhaṇa referred to winds (वात), but this does not seem correct since it is a reference to humours rather than breaths.

- them. That is why the unagitated poison of a snake is not released.
- 30 Sprinkling with very cold water is traditional for all cases of poisoning, because poison is declared to be extremely hot and sharp.²⁷⁶
- 31 Poison in insects is slow and not very hot, having a lot of wind and phlegm. So in cases of insect poisoning, sweating is not forbidden.
- 32cd In cases of a strike or a bite, the poison may, of its own accord, stay there.
- 33–35ab †Having come upon a body,²⁷⁷ in the case of corpses that have been pierced by a poisoned arrow and bitten by a snake, someone who eats the poisoned flesh of a recent corpse out of carelessness will suffer with illness according to the poison, or even die. And therefore, the flesh of those should not be eaten when they have just died.
- It is admissible after three quarters of an hour, but without the poisoned arrow and the snakebite.
- 35.1 [At this point an Upajāti verse is added in the margin of K but is not fully legible; the version of the text in H is also incomplete and not fully comprehensible.]²⁷⁸
- 35.3 †When, in a wound, the poison that is connected with these qualities runs, ...Therefore, not everything that is damaged by poison and eaten causes death.
- ²⁷⁹
- 35.1 [śloka in the MSS that aren't in the vulgate. The first line doesn't scan. Witness K adds a part of the start of this in the bottom margin. This material is repeated at 3.39.2 in MS H.]
- 35cd & 36cd One designates a person who has diarrhoea of feces looking like soot

276 The verb पठ् “is declared, read aloud” here could possibly suggest that the author is working within a written, not oral, tradition.

277 “Having come upon” translates प्रस्थाप्य, which is hard to interpret unless it is a rare form connected with the sense “to see.”

278 *Mādhavanidāna*, 69.20–21 (MN₁: 480) has verses that are directly parallel to this section:

darvīkarāṇāṃ viṣam āśughāti sarvāṇi coṣṇe dviguṇībhavanti ajīrṇapittātapapīḍiteṣu bāleṣu vṛddheṣu bubhukṣiteṣu 20

kṣīṇakṣate mohini kuṣṭhayukte rūkṣe 'bale garbhavatīṣu cāpi

śāstrakṣate yasya na raktam eti rājyo latābhiś ca na saṁbhavanti 21. This passage is the only occurrence in the ayurvedic text corpus that relates to the Nepalese version of the *Suśrutasamhitā* at this point. This suggests that Mādhavakara (fl. ca. 700, Bengal) knew and used the Nepalese version.

279 At this point, witness H inserts a marginal *Indravajrā* verse about diseases that afflict immoral women.

(*grhadhūma*) with wind,²⁸⁰ and who vomits foam, as “someone who has drunk poison.”

- 37 Therefore, fire burns a heart that is pervaded by poison. For, having pervaded of its own accord the location of consciousness, it abides.²⁸¹

Patients beyond help

- 38 Patients who should not be accepted include: those who have been bitten under a **peepul tree**, in a temple, in a cemetery, at an ant-hill, at dawn or dusk, at a crossroads, under Yama’s asterism,²⁸² under the Great Bear and people who have been bitten in lethal spots.

- 39 The poison of cobras kills rapidly. They all gain twice the intensity in those who have indigestion, those who are afflicted by bile or wind, old people, children and the hungry.

- 39.1 In those whose who are mad or intoxicated, or who suffer from anxiety, or who are unable to tolerate its various strengths, it becomes sharp. †...

39.2

- 3.40cd–3.41 One should reject someone overcome by poison who **does not bleed** when cut with a knife, where weals do not appear as a result of lashes,²⁸³ or where there is no horripilation because of cold water, whose mouth is **crooked**, whose hair is falling out of his head. A man who is fatigued and those who stammer,²⁸⁴

- 3.42 one who has a black and red swelling at the site of the bite, with lockjaw, should be avoided. The same goes for someone who has a solid plug emerge from their mouth and someone who has blood running from above and below and

- 3.43ab The physician should also avoid a person who has fangs that have not fallen out quickly.²⁸⁵

material corresponds to SS.1.45.205ab, where it describes how alcohol affects the body.

280 गृहधूम is not a plant in this context *pace* MW: 362. See the discussion in note 188, p. 55.

281 Ḍalhaṇa said that someone who has died from drinking poison has a heart that cannot be burned because it is pervaded by poison (5.3.37 (Su 1938: 570)). But the sense of the Nepalese MSS is the opposite.

282 याम्ये means “southerly” but Ḍalhaṇa on 5.3.38 (Su 1938: 570) interpreted it as “in Yama’s direction” as “under the seventh asterism.”

283 Ḍalhaṇa, on 5.3.40 (Su 1938: 570), glossed लताभिस् “by means of whips,” as “when the body is struck by whips.”

284 nāsāvasāda & plural sakaṇṭhabhaṅgāḥ

285 The grammatical verb-form परिवर्ज्यते “he should avoid,” opt., 3rd, sg., is unusual. Renou (1940: 10 ff) documented such forms from the *Aitareyabrāhmaṇa* onwards.

Oberlies (2003: ¶6.3.3 “Peculiar optative endings”, pp. 176–177) showed that the form is well-documented in *manuscripts* of the *Mahābhārata*, but has been edited out of the printed critical edition in almost all cases. Cf. also Kulikov 2006.

The concern about a patient who “has fangs that have not fallen out” is hard to understand. The word दंष्ट्रा does not mean human teeth (दन्त). We therefore prefer to interpret this as a patient where the fangs of a venomous creature remain in the bite-wound. This requires construing the expression as a *bahuvrīhi* compound: दंष्ट्रा or दंष्ट्र + अनिपातः.

Kalpasthāna, adhyāya 4

Introduction

The fourth chapter of the Kalpasthāna of the *Suśrutasamhitā* addresses the topic of snake bites and snake venom. Unusually for the Nepalese version of the *Suśrutasamhitā*, the discussion is framed as a question from Suśruta to the wise Dhanvantari. Suśruta's questions are about the number of snakes, how they are classified, the symptoms of their bites and the pulses or stages of poisoning experienced by a victim of snakebite and related topics. The taxonomy of snakes is presented in a presentational variant form in Figures 2 and 3.

Literature

A brief survey of this chapter's contents and a detailed assessment of the existing research on it to 2002 was provided by Meulenbeld.²⁸⁶ There also exists a herpetological literature from colonial India as well as more recent studies of snakes in the context of cultural and religious life.

The ophiological literature of the colonial period begins with Fayrer (1874), whose work included striking colour paintings of snakes.²⁸⁷ Fayrer provided a biological taxonomy of snakes as well as chapters on mortality statistics during the nineteenth century, treatment and effects of poison, and experimental data. Ewart (1878) included descriptions of appearance and behaviour of poisonous snakes and sometimes their local names; he also distinguished his publication by fine colour illustrations.²⁸⁸ Wall (1913: 75–124) provided a useful analysis of the medical effects of snake envenomation in India arranged by the varied symptomology of different snakes. He also discussed the difference between the symptoms of toxicity and fright (69–75) and also the difficulties arising out of uncertainty about the effects of snake-bite (124–126). Wall (1921) provided a wealth of detail of the snakes of Sri Lanka, including line drawings.

Doniger (2015) provided a good survey of snakes as protagonists in religious literature from the *Atharvaveda* through the epics, *Purāṇas* and

²⁸⁶ HIML: IA, 292–294.

²⁸⁷ The first edition of Fayrer's work was published two years earlier, in 1872.

²⁸⁸ Calling his work a supplement to Fayrer (1874), but also being cited by Fayrer, Ewart 1878 evidently also collected local knowledge from his "snake-man" (p. 22)

Buddhist literature. Slouber (2016: 31–33 *et passim*) discussed the *Suśruta-saṃhitā*'s *Kalpasthāna* as a precursor and influence on later Tantric traditions of snake-bite interpretation and therapy. Semeka-Pankratov (1979) traced semiotics of the term *nāga* through Vedic, Pali and Sanskrit literature.

A discussion of this chapter specifically in the light of the Nepalese manuscripts was published by Harimoto.²⁸⁹ After a close comparative reading of lists of poisonous snakes, Harimoto concluded that, “the Nepalese version is internally consistent while the [vulgate] editions are not.” Harimoto showed how the vulgate editions had been adjusted textually to smooth over inconsistencies, and gave insights into these editorial processes.²⁹⁰

Translation

- 1 Now we shall explain the procedure (*kalpa*) about what should be known concerning the venom in those who have been bitten by snakes.²⁹¹
- 3 Suśruta, grasping his feet, questions the wise Dhanvantari, the expert in all the sciences.
- 4 “My Lord, please speak about the number of snakes, and their divisions, the symptoms of someone who has been bitten, and the knowledge about the successive shocks (*vega*) of poisoning”.²⁹²
- 5 On hearing his query, that distinguished physician spoke.
“The venerable snakes such as Vāsukī and Takṣaka are uncountable.
- 6–9ab “They are snake-lords who support the earth, as bright as the ritual fire, ceaselessly roaring, raining and scorching. They hold up the earth, with its oceans, mountains and continents. If they are angered, they can destroy the whole world with a breath and a look. Honour to them. They have no role here in medicine.

²⁸⁹ Harimoto 2011: 101–104.

²⁹⁰ The two editions that Harimoto noted, Su 1938 and Su 1889, present identical texts.

²⁹¹ The *Sarvāṅgasundarī*, commenting on 1.16.17 (Ah 1939: 246), glossed कल्प as प्रयोग.

²⁹² The expression “successive shocks” translates वेग, which in other contexts may mean “(natural) urge.” Here, it is rather the discrete stages or phases of physiological reaction to envenomation. Cf. the symptoms of cobra poisoning described by Wall (1913: 80).

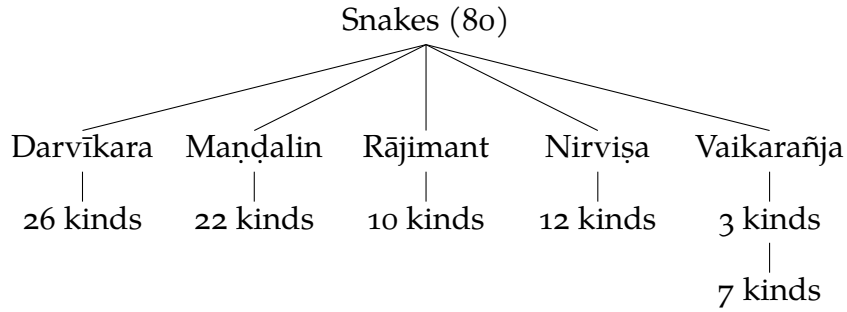


Figure 2: The taxonomy of snakes in the vulgate, 5.4.9–13ab (Su 1938: 571).

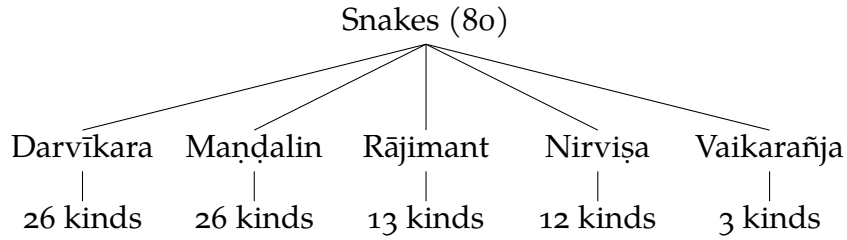


Figure 3: The taxonomy of snakes in the Nepalese version.

“The ones that I shall enumerate in due order are those mundane ones with poison in their fangs who bite humans.”²⁹³

9cd–10 “There are eighty kinds of snakes and they are divided in five ways: Darvīkaras, Maṇḍalins, Rājimants, and Nirviṣas. And Vaikarañjas that are traditionally of three kinds.”²⁹⁴

11 “Of those, there are twenty and six hooded snakes, and the same number of Maṇḍalins are known. There are thirteen Rājīmants.”²⁹⁵

12 “There are said to be twelve Nirviṣas and, according to tradition, three Vaikarañjas.

²⁹³ The next few verses are discussed in detail by Harimoto (2011: 101–104), who shows that in the taxonomy of snakes, the Nepalese version of the *Suśrutasamhitā* has greater internal coherence than the vulgate recension.

²⁹⁴ Harimoto (2011) translated these names as “hooded,” “spotted,” “striped,” “harmless,” and “hybrid.” Figure 2 shows the taxonomy described in the vulgate text; Figure 3 shows the different and more logical division of the Nepalese version of the *Suśrutasamhitā*.

²⁹⁵ The phrasing of this śloka is awkward.

Or “There are 20 phanins and 6 maṇḍalins. The same number are known. There are 13 Rājīmants.” Or even, “there are 20 Phanins and six of them are Maṇḍalins.” Are phanins really the same as darvīkaras?

- 13–14ef “If they are trodden on, ill-natured or provoked or even just looking for food, those very angry snakes will bite. And that is said to happen in three ways: serpented (*sarpita*), torn (*darita*) and thirdly without venom (*nirviṣa*). Some experts on this want to add “hurt by the snake’s body”.²⁹⁶
- 15–16 “The physician can recognize the following as “ophidian (*sarpita*)”: Where a rearing snake makes one, two or more puncture-marks of its teeth, when they are deep and without much blood,²⁹⁷ accompanied by a little ring of spots (*cuñcumālaka*),²⁹⁸ lead to degeneration, and are close together and swollen.
- 17 Where there are streaks with blood, whether it be blue or white, the physician should recognize that to be “torn (*darita*),” having a small amount of venom.
- 18

²⁹⁶ This might refer to constriction. The phrase reads like a commentarial addition rather than the main text of the *Suśrutasaṃhitā*.

²⁹⁷ The word उद्धृत “aroused” was glossed by Ḍalhaṇa at 5.4.15 (*Su* 1938: 571) as उन्मोद्य, a word not found as such in standard dictionaries (*MW*; *KEWA*; *AyMahā*; *Apte*). Semantic considerations suggest that the word is not related to $\sqrt{muṭ}$ “break” or *mūṭa*/*mūṭa* “woven basket.” Perhaps it is related to the Tamil *மோதி* (*mōṭi*), whose meanings include “arrogance, grandeur, display” (*DED*₂: #5133) or to faintly-documented forms like *moṭyate* “is twisted” (*CDIAL*: #10186). Ḍalhaṇa’s उन्मोद्य may thus mean “twisting up” or “making an arrogant display.”

Note that पद “puncture-mark” (more literally, “footprint”) is being used in the same sense as in 1.13.19 (*Su* 1938: 57) when describing the marks on the body where a knife scarifies the skin before leeching. See footnote 67.

²⁹⁸ The usual dictionary lexeme is चक्षु, not चुक्षु as in the Nepalese witnesses. We translate “spots” following Ḍalhaṇa and Gayadāsa on 5.4.15 (*Su* 1938: 571), where they described a group of spots or swellings at the site of the bite. On the history of the word मालक, see Kieffer-Pülz 1996.

Uttaratantra, adhyāya 16 (17 in the vulgate)

Literature

Survey of this chapter and the existing research on it to 2002: [HIML: IA](#), 305–306.

History of couching in India: Scott 1817; Breton 1826; Jack 1884; Hendley 1895; Elliot 1918; Śāstrī 1940; V. Deshpande 1999; 2000; Wujastyk 2019; Leffler et al. 2020, Wujastyk 2003b: 65–67.

Translation

- 1 Now I shall explain the counteraction (*pratiṣedha*) of diseases located in the pupil (*drṣṭi*).
- 2 There are three curable (*sādhya*), three incurable (*asādhya*), and six mitigatable (*yāpya*) diseases located in peoples eyes. Among these, three are curable (*sādhya*). Amongst these three, the remedy (*pratīkāra*) has been stated for the one called “seeing smoke (*dhūmadarśin*)”.²⁹⁹
- 3–5ab When the eye is inflamed (*vidagdha*) by bile and when it is inflamed by phlegm, one should apply the method for removing bile and phlegm, using nasal medicines (*nasya*), irrigation (*seka*), application of collyrium (*añjana*), liniment (*ālepa*), and medicines cooked in a crucible (*puṭapāka*), together with an eyewash (*tarpaṇa*),³⁰⁰ but not cutting with a blade (*śāstrakṣata*).³⁰¹
One should drink ghee (*sarpis*) prepared with the three fruits (*triphalā*) and in the first [case where the problem is bile], and prepared with turpeth (*trivṛta*) in the latter [case, of phlegm].
And ghee prepared with tilvaka (*tailvaka*) is wholesome in both cases, or else aged ghee on its own.
- 5cd–7ab In a collyrium, these four compounds (*yoga*) are beneficial in both cases:
 - ochre (*gairika*), Sind salt (*saindhava*), long pepper (*kṛṣṇā*) and the black soot (*maṣī*) from cow’s teeth;

where is cutting with a knife related to removing bile or phlegm.

maṣī
burned
charcoal.
Find refs.

²⁹⁹ This disease and its cure are described earlier (SS.6.7.39 and SS.6.10.16 ([Su 1938](#): 609 and 614) respectively). The latter part of this verse is hard to construe and the text here may have been altered at an early period.

³⁰⁰ These therapies are described in SS.6.18 ([Su 1938](#): 633–640).

³⁰¹ Dalhaṇa interpreted this as blood-letting (*sirāvedha*), which is discussed in SS.1.14 ([Su 1938](#)).

- Cow's flesh (*gomāṃsa*), black pepper (*marica*), siris (*śirīṣa*) and red arsenic (*manaḥśilā*);
 - stalk (*vr̥nta*) from a wood apple (*kapittha*) with honey (*madhu*);³⁰²
 - or the the fruits of the velvet bean (*svayaṃgupta*).
- 8 The physician should make a collyrium with ground up metal (*kupyaka*),³⁰³ Asoka tree (*aśoka*), Sal tree (*śālā*), mango (*amra*), beauty-berry (*priyaṃgu*), Indian lotus (*nalina*), blue lotus (*utpala*), together with hareṇu (*hareṇu*), emblic (*āmalaka*), myrobalan (*pathyā*), long pepper (*pippali*). It should be combined with ghee and honey (*kṣaudra*).
- 9–10 Also, when bile and phlegm have developed, the physician should apply hareṇu (*hareṇu*) with the expressed juice (*svarasa*) of the flowers from mango (*amra*) and Jambu (*jambū*) trees. Then this collyrium, matured (*vipakva*) with ghee and honey (*kṣaudra*), should then be applied.
- 10–11ab Filaments (*kiñjalka*) of Indian lotus (*nalina*) and blue lotus (*utpala*), with ochre (*gairika*), and the juice of cow-dung (*gośakṛt*) are a collyrium in the form of a pill (*guḍikā*). This is good for both day and night blindness.
- 11cd–12ab Elixir-salve (*rasāñjana*), honey (*kṣaudra*), ghee, scrambleberry (*tālīśa*), together with gold and ochre, with the juice of cow-dung (*gośakṛt*) are for an eye afflicted with bile.
- 12cd–13 Alternatively, wise physician should first grind together elixir-salve (*śīta*) and stibnite (*sauvīraka*), infused (*bhāvita*) with the blood of birds and animals (*rasa*).³⁰⁴ Then he mixes it with the bile of a tortoise or with extract of rohu carp (*rauhita*). It should always be used with powdered collyrium to quell the bile.
- 14 Thus, a collyrium of white teak (*kārśmarī*) flowers, liquorice (*madhuka*), tree turmeric (*dārvī*), lodh tree (*lodhra*) and elixir salve (*rasāñjana*) is always good as a collyrium in this case.
- 15 Alternatively, for those who cannot see during the day, this pill (*guḍikā*), with sandalwood, is recommended: salt (*nadīja*), conch shell and

302 Wood apple (कपित्थ) in this verse is ablative singular or accusative plural, neither of which construe obviously.

303 A metal other than gold or silver, according to V. Jośī and N. H. Jośī (*AyMahā*: 1.217). Perhaps lead, which is used in making contemporary collyrium.

304 This was Ḍalhaṇa's preferred interpretation of *rasa* "juice" in this context. He also noted that some take elixir-salve (*śīta*) to be camphor.

- the three spices, collyrium, realgar (*manaḥśilā*), the two turmeric (*ra-jana*)³⁰⁵ and liver extract (*yakṛdrasa*).³⁰⁶
- 16 One should grind up kohl (*srotoja*),³⁰⁷ and Sind salt (*saindhava*) and long pepper and also hareṇu (*hareṇu*). Such wicks with goats urine are good in a collyrium for night blindness (*kṣaṇadāndhya*).
- 17–18ab Alternatively, in such a case, grind together Indian sarsaparilla (*kālā-nusāriva*)³⁰⁸ long pepper, dried ginger (*nāgara*) and honey, the leaf of the scramberry (*tālīśapatra*), the two turmeric (*rajana*), a conch shell and liver extract (*yakṛdrasa*). Then shade-dried wicks take away illness (*ruj*).
- 18cd–19ab Wicks made of red arsenic (*manaḥśilā*), chebulic myrobalan (*abhayā*), the three spices (*vyoṣa*). Indian sarsaparilla (*sāriva*), cuttlefish bone (*sa-mudraphena*), combined with goat’s milk are good.
- 19cd–21ab One should cook a honey collyrium (*kṣaudrāñjana*) either in the juices of cow’s urine (*gomūtra*), and bile, spirits (*madirā*), liver (*yakṛt*), and emblic (*dhātṛī*) or else in the juice of the liver (*yakṛt*) of something different, or else with the extract of the three fruits (*triphalā*). One of these should be mixed with cow urine, ghee and cuttle fish (*aṇṇavamala*)³⁰⁹ with long pepper, honey and box myrtle (*kaṭṭphala*). It is placed in sea salt and stored in a bamboo tube.
- 21cd–22 One should cook the liver of a sheep, the ghee of a goat, with long pepper and Sindh salt, honey and the juice of emblics. Then one should store it properly in a catechu box. Prepared thus, the honey collyrium is good.
- 23 Alternatively, a collyrium that is hareṇu (*hareṇu*) mixed with long pepper (*māgadhī*), the bone and the marrow of a goat, cardamom (*elā*) and

305 Turmeric (*Curcuma longa* Linn.) and tree turmeric (*Berberis aristata* DC). The term *rajana* is unusual; the normal term is *rajanī*. *Rajana* occurs in *Suśrutaniḥṣaṇṭu* 158 in the sense of *Ferula asafoetida*, Linn.

306 This verse appears as no. 27 in the vulgate.

307 Glossed by Ḍalhaṇa as a kind of collyrium. Cf. **nadk-1954** and P. V. Sharma 1982: 197–198

308 There are two forms of *sārivā* mentioned widely in Āyurvedic literature, the white and the black. Ideas on the identity of the black form are particularly fluid. See Sivarajan and Balachandran (ADPS: 434–438) for a clear discussion.

309 At SS 6.12.31, Ḍalhaṇa glossed *aṇṇavamala* as cuttlefish bone (*samudraphena*). It may be worth considering whether the unusual term *aṇṇavamala* “ocean-filth” might refer to ambergris.

- liver, together with liver extract, is good for eyes afflicted by phlegm.³¹⁰
- 24 Over a fire, one should cook the liver (*yakṛt*) of a monitor lizard (*godhā*) prepared with entrails (*antra*) and stuffed with long pepper (*māgadhi*). As is well known, liver (*yakṛt*) which is used (*niṣevita*) with collyrium certainly destroys night blindness.
- 25 After preparing both a spleen (*plīhan*) and a liver on a spit, one should eat them both with ghee and oil.³¹¹
- 25cd–26ab As is well known, there are six diseases that can be alleviated (*yāpya*); in those cases (*tatra*) one should release the blood by bloodletting. And for the sake of wellbeing one should also purge using aged ghee combined (*upahita*) with purgative aids (*aṅga*).
- 26cd–27 When an eye-disease is caused by wind (*pavanodbhava*) they say that castor oil (*pañcāṅgulataila*) mixed with milk is good.³¹² In the case of diseases of blood (*śonita*) and bile (*pitta*), one should drink ghee with the three fruits; it is particularly cleansing.³¹³ In the case of phlegm, a purgative by means of turpeth (*trivṛt*) is recommended. In the case of all three humours, sandal (*sugandhi*) in oil is prepared with it (turpeth).³¹⁴
- 28 In cases of partial blindness (*timira*), aged ghee is recommended. It is good if it is kept in an iron vessel.
- 28cd–29ab One should know that ghee with the three mylobalans is always good, and it is made with what is called periploca of the woods (*meṣaviṣāṇa*).

310 On the identities of *elā* and *hareṇu*, Watt ([WattComm](#): 511 ff) described the former as “true” or “lesser” or “Malabar” cardamom, *Elettaria cardamomum*, Maton & White. In contrast, the “greater” cardamom is *Amomum subulatum* (that Watt discussed on p. 65) that is commonly used as an inferior substitute for *E. cardamomum*. Singh and Chuneekar ([GVDB](#): 467 f) provided an interesting discussion of *hareṇu*, noting that the term refers to two substances, first the *satīna* pulse (*Pisum sativum*, Linn.), and second an unknown fruit such as perhaps a *Vitex*. They noted, “None of the text commentators have attempted to disclose the nature of its source plant,” although Ḍalhaṇa described it as aromatic and identical to *reṇukā* (SS.ci.2.75).

311 We read the locative as if an instrumental; if the locative were intended then it would be the spit that would be coated with oil and ghee.

312 Ḍalhaṇa said that the unexpressed topic of this recipe is partial blindness (*timira*).

313 Blood-bile (*śonita-pitta*, *rakta-pitta*) is a widely-recognized disease in ayurveda, but the compound here is definitely dual, which rules out that interpretation. One would expect blood-bile because the previous verse

314 The expression “the fragrant one in oil (*tailasugandhi*)” is puzzling. The word *sugandhi* has different referents in the *Nighaṇṭu* literature but is not common as a noun in the extant literature. “Sandal” is just one of its possible meanings.

- A man who is suffering from partial blindness should lick the finely-ground three fruits mixed with ghee off his hand (*sapāṇa*).³¹⁵
- 29cd Alternatively, someone afflicted by phlegm should apply them (the three fruits) mixed with oil and steeped (*pragāḍha*) in honey.
- 30 The very best oil, well-cooked with a decoction of cow-dung, is good in cases of partial blindness, taken as an errhine.
In cases caused by bile, ghee by itself is good, as is oil when it arises from wind and blood.
- 31 And in the case of wind one should apply turpeth (*trivṛt*) based on strong mallow (*atibalā*), and country mallow (*balā*) in an errhine (*na-sya*).³¹⁶
Ghee which has been extracted from milk cooked with the meat of aquatic creatures and those from marshlands should be prescribed.
- 32 †An enclosed roasting (*puṭākhyā*) with Sindh salt and the product of the meat of a carnivore (*kravyabhuj*) and a deer (*eṇa*), is combined with honey and ghee.³¹⁷
Fat (*vasā*) from a horse, a vulture, a snake, and a cock (*tāmracūḍa*), combined with mahua (*madhūka*) is always good in a collyrium.†³¹⁸
- 33 Having prepared (*niṣevita*) a collyrium made of kohl (*srotas*) and gradually combine it with juices (*rasa*), milk and ghee.³¹⁹

315 “Off his hand” translates the adverbial *sapāṇam*, an unusual word. Ḍalhaṇa reproduced a reading close to the Nepalese recension but says that Jejjāta rejects it and so he also does (Su 1938: 627).

316 “Based on” translates *-āśrita* “depending on” which does not construe easily here. The vulgate has *śṛta* “cooked” which makes easier sense but is not supported by the Nepalese MSS.

317 Ḍalhaṇa noted (Su 1938: 628a) that *puṭāhvaya* (see verse 35 below) is a synonym for *puṭapāka*, and that the process is described in the *Kriyākalpa* chapter, i.e., SS.6.18.33–38 (Su 1938: 635). On the *puṭa* process in the *Suśrutasaṃhitā*, which is earlier and different than that of *rasaśāstra* literature, see the discussion by Wujastyk (2019: 83):

The term ‘enclosed roasting’ (*puṭapāka*) does occur in the *Suśrutasaṃhitā* in the context of eye treatments, but designates a method of obtaining juice from substances by wrapping them in leaves pasted with earth and cooking the bolus on charcoal to finally extract a juice.

318 This verse contain irresolvable difficulties. There are no significant variants in the Nepalese MS transmission, but the text is ungrammatical. The vulgate reads substantially differently but we have nevertheless made some emendations in line with it and read the verse as two sentences.

319 Ḍalhaṇa specified that the juices are meat soups of various animals (Su 1938: 628).

- For thirty days, this collyrium is put in the mouth of a black snake that is covered with kuśa grass (*kuśa*).
- 34 Next, a collyrium that is milk containing long pepper (*māgadhī*), lye (*kṣāraka*) and Sindh salt (*saindhava*) that has been repeatedly prepared with the mouth of a black snake, is good in the case of bloodshot blindness (*rāgin timira*).³²⁰
- 35 They say that ghee may be produced from that and combined with sweet herbs is good as an errhine for eye-diseases caused by bile. And here, an eyewash (*tarpaṇa*) is good that is a combination that is the flesh of wild animals taken hot (*puṭāhvaya*).³²¹
- 36 And realgar (*manaḥśilā*) mixed with elixir salve (*rasāñjana*) and honey is a liquid collyrium (*dravāñjana*) which is, in this case, combined with mahua (*madhūka*).³²²
- Alternatively, experts on this say that finely ground blue vitriol (*tuttha*) extracted from a gold mine is the “same collyrium (*samāñjana*)”.³²³
- 37 Conch mixed with equal parts of sheep’s horn and stibnite (*añjana*) removes the impurity of the glassy opacity (*kāca*) because of the application of collyrium (*añjana*).³²⁴
- The extracts (*rasa*) produced from aflame of the forest (*palāśa*), Rohīta tree (*rohīta*),³²⁵ mahua (*madhūka*), ground with the supernatant layer (*agra*) of the spirits (*madira*) is applied.
- 38 Alternatively, one should cook an errhine with cuscus grass (*uśīra*), lodh tree (*lodhra*), the three fruits (*triphalā*), beauty berry (*priyaṅgu*)

320 Ḍalhaṇa described this blindness as a type of *kāca* disease caused by wind (Su 1938: 628). The expression “bloodshot blindness” is an attempt to capture the idea of a blind eye that is dyed or coloured (not colour-blindness). This verse is quite different from the vulgate and also syntactically challenging.

321 The expression taken hot (*puṭāhvaya*) is a guess.

322 The expression liquid collyrium (*dravāñjana*) is only known from Ḍalhaṇa’s comments on 6.17.11ab (Su 1938: 626). The recipe in the present collyrium is different from that discussed by Ḍalhaṇa.

323 On *tuttha*, which may also be identified with zinc oxide or as crushed sea-urchin shells, see Falk (1991: 112 ff.); zinc oxide is a component of skin-balms but is not recommended for application in the eyes themselves. The expression “same collyrium (*samāñjana*)” is a hapax legomenon glossed inexplicably by Ḍalhaṇa as “a collyrium with an equal amount of fermented barley” (*tulyasauvīrāñjana*) (Su 1938: 628).

324 The ablative “from collyrium” is hard to construe, but Ḍalhaṇa used this term and phrase in his commentary on 6.17.41ab (Su 1938: 629).

325 Probably *Soyimida febrifuga* A. Juss.

to pacify eye diseases caused by phlegm.³²⁶

One should apply smoke of the bark of embelia (*vidaṅga*), velvet leaf (*pāthā*), white siris (*kinihī*), and desert date (*iṅgudī*); and cuscus grass (*uśīra*) alone.

- 39 A ghee that is cooked (*bhāvita*) from a decoction of a non-flowering tree (*vanaspati*)³²⁷ as well as turmeric (*haridrā*) and spikenard (*nalada*) is good in a eyewash (*tarpaṇa*).

Alternatively, one may have an enclosed roasting (*puṭapāka*) done with arid-land animals (*jāṅgala*)³²⁸ and a plentiful amount of long pepper (*māgadha*), Sindh salt and honey.

- 40 A treatment (*kriyā*) with realgar (*manahśilā*), the three spices, conch, honey, along with Sindh salt, green vitriol (*kāsīsa*) and elixir salve (*rasāñjana*).³²⁹

They say that an elixir salve (*rasāñjana*) combined with myrobalans, treacle and dried ginger is good.³³⁰

- 41 Alternatively, a collyrium that has been prepared many times in the eight types of urine³³¹ is put into water with the three fruits. Having stored it in the mouth of a nocturnal creature (*niśācara*)³³² one should place it in a conch (*salilotthita*) for two months.³³³

- 42 One should apply that collyrium together with the flowers of mahua (*madhūka*) and horseradish tree (*śigru*) when [the disease] is caused by all [the humours].

But alternatively, all treatments apply when blood is the cause. The procedure that removes bile is good when there is blue dot cataract

326 Ḍalhaṇa invoked a general rule (*paribhāṣā*) to indicate that this mixture should be cooked with sesame oil.

327 These are fig trees. The *Sauśrutaniḡhaṇṭu* (252) specifies the Uḍumbara. Cf. the classification in CS.1.1.71–72, 1.8, *et passim*.

328 On this term, see SS.1.35.42 (*Su* 1938:157) and the discussion by Zimmermann (1999: 25–31).

329 Ḍalhaṇa glossed treatment (*kriyā*) specifically as inspissation (*rasakriyā*) (*Su* 1938:629).

330 We emend *hite* to *hitam*, against the MSS.

331 See SS *mūtravarga*

332 Ḍalhaṇa glossed nocturnal creature (*niśācara*) as “vulture,” although elsewhere in the *Suśrutasaṃhitā* it is more commonly interpreted as a spirit or demon. In the present context, following verses 33 and 34, it is probably a snake.

333 We interpret “water-born (*salilotthita*)” as “conch” in line with *jalodbhava*, but the term is uncertain.

- (*mlāyin*).³³⁴
- 43 For one who has a humour, the physician should consider the rule in all humoral cases and then smear the ointment on the face.³³⁵
The treatment that is good for removing watery eye (*syanda*) should be properly applied in all these humoral cases, according to the individual.³³⁶
- 44 The physician should not employ substances in errhines etc., when the humours intensify, and also when disease spreads. And further, in the *Kalpa*, there is a good deal more said about collyriums, and that should be considered and then applied.³³⁷
- 45 Someone who uses matured ghee, the three fruits, wild asparagus (*śa-tāvarī*), as well as mung beans (*mudga*), emblic and barley has nothing to fear from cases of severe blindness (*timira*).
- 46 Blindness is dispelled by milk prepared with wild asparagus or in emblics, or again cooked barley (*yavaudana*) followed by the water of three fruits with plenty of ghee.
- 47 When there is bloodshot blindness (*rāgiṇi timire*), the wise physician should not cut a vein. A humour injured (*utpīḍita*) by the instrument rapidly destroys vision.
- 48 Non-bloodshot blindness (*araga timira*) in the first layer (*paṭala*) is treatable. And bloodshot blindness (*rāgiṇi timire*) in the second layer, with difficulty. And in the third layer it can be mitigated (*yāpya*).³³⁸
- 49 I shall explain the therapy for success when there is a cataract (*liṅga-nāśa*) caused by phlegm. It may be white, like a full moon, an umbrella, a pearl (*muktā*) or a spiral (*āvarta*).
- 50 Or it may be uneven, thin in the middle, streaked or have excessive shine (*prabha*). A humour (*doṣa*) in the pupil may be characterized as being painful or having blood.³³⁹

Check out these refs.

meaning of kalpa

334 The vulgate follows Ḍalhaṇa in glossing *mlāyin* as *parimlāya*. The description of this condition at SS.6.7.27–28 appears to refer to “blue dot” or “cerulean” cataract. √*mlai* derivatives can mean “dark” or “black.”), which is normally a different ailment.

335 The vulgate edition omits part of this verse (ab) combining earlier and later passages.

336 The term watery eye (*syanda*) refers to the specific disease *abhiṣyanda*. See SS.6.6.5, 1.46.51, etc.

337 Ḍalhaṇa noted that *Kalpa* means the Uttaratantra adhyāya 18 (Su 1938: 633 ff).

338 Although the text says with difficulty (*kṛcchra*), the implication is that it is untreatable (*asādhya*) (cf. 6.17.2 (Su 1938: 625) above). The three categories, treatable, untreatable and possibly mitigated are standard categories of triage.

339 In the vulgate, and in parallel passages in the AS, the reading “it may be (*bhavet*)” is

51–52 At a time that is neither too hot or too cold, the patient who has been oiled and sweated is restrained and seated, looking symmetrically at his own nose.

The wise physician should separate (*muktvā*) two white sections from the black part (*kr̥ṣṇa*) and from the outer corner of the eye (*apāṅga*). Then he should press (*pīḍ-*) properly into the eye,³⁴⁰ at the naturally-occurring (*daivakṛte*) opening (*chidra*) with a probe (*śalākā*) made of copper or iron, with a tip like a barley-corn, held by a steady hand with the middle finger, forefinger and thumb, the left one with the right hand and the other one contrariwise.

When the piercing is done properly, there is the issue of a drop of liquid and a sound.³⁴¹

55 The expert should moisten the exact place of piercing with a woman's breast-milk. Then he should scratch the circuit of the pupil (*dr̥ṣṭimaṇḍala*) with the tip of the probe (*śalākā*).³⁴²

56 Without injuring, gently pushing the phlegm in the circuit of the pupil against the nose, he should remove it by means of sniffing (*ucchiṅgana*).³⁴³

57 Whether the humour is solid (*styāna*) or liquid (*cala*), one should apply sweating to the eye externally, with leaves (*bhaṅga*) that remove wind, after fixing the needle (*sūcī*) properly.³⁴⁴

58 But if the humour cannot be destroyed or if it comes back, one should apply the piercing (*vyadha*) once again, with appropriate oils and so on.

59 Now the pupil (*dr̥ṣṭi*) shines like the sun (*hari*) in a cloudless sky; then,

replaced with the negative “if, then not (*na ced*)” (cf. utt.17.1–3 (*As* 1980: 712)). These characteristics are then read as conditions that preclude surgery; for the Nepalese recension, they are simply descriptions of the appearance of a cataract.

340 We understand the locative *nayane* as the place of pressing; other interpreters take it as an accusative dual. The idea is that the eye is held steady by the surgeon.

341 Ḍalhaṇa remarked on 6.17.61ab (*Su* 1938: 630) that when the piercing is not correctly done, blood issues and there is no sound.

342 The anatomy of the eye is described in 6.1.14–16 (*Su* 1938: 596). The disks or *maṇḍalas* are the circuits or disks of the eye.

343 Ḍalhaṇa described sniffing (*ucchiṅgana*) at 6.19.8 (*Su* 1938: 641), clearly intending inward sniffing.

344 We interpret *bhaṅga* as leaves, following the usage elsewhere in this sthāna 4.32.9, 6.11.5 (*Su* 1938: 513, 614) where *bhaṅga* means shoots (*pallava*). A similar procedure is described at 6.17.25 (*As* 1980: 716a), where sweating of the eye is done by means of the leaves of a castor-oil plant.

- when objects become visible, one may slowly remove the probe (*śa-lākā*).³⁴⁵
- 60 Having smeared ghee on the eye, one should cover it with a bandage. Then, he must lie down supine in a house free from disturbances.³⁴⁶
- 61 At that time, he should not belch, cough, sneeze, spit or shiver. Afterwards there should be restrictions (*yantraṇā*) as in the case of someone who has drunk oil.³⁴⁷
- 62 Every three days one should wash it with decoctions (*kaṣāya*) that remove wind. After three days, one should sweat the eye externally because of the danger of wind.
- 63 Having restrained himself in this way for ten days he should thereafter take a beneficial regimen (*karma*) that clears the pupil (*dṛṣṭi*) and also he should take light food in measure.

[Complications]

- 64 When there is a misshapen eyeball (*vilocana*), the eye may fill because of the release of blood from a vein.³⁴⁸
A hard probe leads to shooting pain (*śūla*), a thin to unsteadiness of the humours (*doṣapariplava*),³⁴⁹
- 65 a thick-tipped probe leads to a large wound, and a sharp one may cause harm in many ways; a very irregular one may cause a discharge of water, a rigid (*sthira*) one brings about a loss of function (*kriyāsaṅga*).³⁵⁰

345 There are many problems with the MS readings and interpretation of this half-verse. We have inferred “sky” and emended from “free from the point (*agramukta*)” to “free from clouds (*abhramukta*)”. The latter meaning is supported (in different words) by the vulgate and occurs elsewhere in Sanskrit literature.

346 Ḍalhaṇa explained disturbances specifically as dust, smoke, drafts and sunlight 6.17.67 (Su 1938: 631a).

347 Ḍalhaṇa glossed “restrictions (*yantraṇā*)” as having a controlled diet and the other restrictions appropriate to someone who is taking oil as a preparation before further therapy (6.17.68 (Su 1938: 631)). These restrictions are also described at 6.18.28 (Su 1938: 635) and 1.16.25cd (Ah 1939: 249).

348 The condition of “misshapen eye” is referred to briefly in 6.61.9 (Su 1938: 800), where Ḍalhaṇa glossed it as “bent brow and eye (*vakrabhrūnetra*).” The vulgate’s reading of “with blood (*śonitena*)” is easier to construe.

349 There is a medically significant difference here from the vulgate, which reads “a rough (*khara*) probe” not a “thin” probe.

350 This translation of loss of function (*kriyāsaṅga*) is given on the basis of Ḍalhaṇa’s gloss of *kriyāsaṅgakarī* at 3.8.19 (Su 1938: 382) as “causing the destruction of actions such

66 Therefore, one should make a good probe that is free from these defects.

[Characteristics of the probe]

The probe should be eight finger-breadths long and in the middle it is wrapped with thread and is as thick as a thumb joint. It is shaped like a bud at both ends (*vaktra*).

67 A commendable probe should be made of silver, iron or gold (*śātaku-mbhī*).³⁵¹

[Complications]

Redness, swelling, lumps, driness (*coṣa*), bubbling (*budbuda*),³⁵² pigs' eye (*sūkarākṣitā*),³⁵³ irritation (*adhimantha*), etc. and other diseases arise from faults in the piercing,

69–70 or even from bad behaviour. One should treat them each accordingly.

Listen to me once again about compounds for painful red eyes.

Red chalk (*gairikaḥ*), Indian sarsaparilla (*śārīvā*), panic grass (*dūrvā*), and ghee ground with barley.

71 This face ointment is to be used for quelling pain and redness. Or else it may be taken combined with the juice of citron (*mātulūṅga*) with sesame gently fried, mixed with white mustard (*siddhārthaka*).³⁵⁴ This is immediately beneficial when someone is looking for relief.

72 A paste with *Holostemma* (*payasyā*),³⁵⁵ Indian sarsaparilla (*śārīvā*), cassia cinnamon (*patra*), Indian madder (*mañjiṣṭhā*), and liquorice

as moving (*gamanādikriyāvināśakarī*)."

351 The vulgate reads "copper (*tāmra*)" in place of "silver."

352 Ḍalhaṇa glossed "bubbling (*budbuda*)" as "prolapse (*māṃsanirgama*) that looks like bubbles."

353 The expression "pigs' eye" appears to be a *hapax*. It was glossed as "downward vision (*adhodṛṣṭitva*)" by Ḍalhaṇa.

354 On the adverbial use of gently (*mṛdu*), see Gombrich 1979.

355 The identity of *payasyā* is debated (GVDB: 538), and was already in doubt at the time of Ḍalhaṇa but likely candidates may be those suggested by Ḍalhaṇa, who suggests either *arkapuṣpī* or *kṣīrakākoli*, that may be *Holostemma adakodien* Schult. and *Leptadenia reticulata* (Retz.) Wight & Arn. (ADPS: 195-196). The *Sauśrutanighaṇṭu* glosses it as *kṣīrikā* or *arkapuṣpikā* (Suvedī and Tivārī 2000: v. 307).

- (*madhukair*) stirred with goat's milk, pleasantly warmed, is said to be healthy.³⁵⁶
- 73 Alternatively, it can be made in this way with Himalayan cedar, Himalayan cherry (*padmaka*) and dried ginger. Or, in the same way, with grapes, liquorice and the Lodh tree mixed with Sindh salt.
- 74 Alternatively, goats' milk with the Lodh tree, Sindh salt, red grapes and liquorice, cooked, should be used in irrigation because it removes pain and redness.
- 75 Having cooked it with liquorice, water-lily, and costus, mixed with grapes (*drākṣā*), lac (*lākṣā*), white sugar (*sitā*), with wild asparagus, Hare Foot Uraria (*pr̥thakparṇī*),³⁵⁷ nutgrass (*mustā*), liquorice, Himalayan cherry (*padmaka*), and Sindh salts, one should apply it [irrigation] gently warm.
- 76cd–77ab Ghee that has been cooked in four times the amount of milk that has itself been cooked with drugs that destroy wind.³⁵⁸ This has an admixture of cottony jujube (*kākolī*) etc., should be prescribed in all treatments.³⁵⁹
- 77cd–78ab If pain does not end in this way, one should administer blood-letting to the vein of someone who has previously been oiled and sweated. Then the wise physician should apply cauterization in the advised manner.³⁶⁰
- 78cd–80ab Now listen to two excellent collyriums for making the pupils clear. After grinding the flowers of perploca of the woods (*meṣaśṛṅga*), siris (*śirīṣa*), axelwood (*dhava*) royal jasmine (*jātī*), pearl and beryl (*vaiḍūrya*) with goat's milk, one should put it in a copper pot for seven days.
- 80cd–81 Having made it into wicks (*vartti*), the physician should apply it as a collyrium. Alternatively, one should make kohl (*srotoja*), coral (*vi-druma*), cuttlefish bone (*phena*), and realgar (*manaḥśilā*) and peppers

or a dual?

356 The expression “stirred with goat's milk (*ajākṣīrārdita*)” is difficult. It may be connected with the rare root *ard* documented by Whitney (1885: 15). Cf. *√ard gatau* (*Dhātupāṭha* 1.56).

357 Suvedī and Tivārī 2000: 18.

358 Ḍalhaṇa mentioned that these drugs include Deodar (*bhadradāru*) and other wind-destroying drugs. The *vātasamśamana* group is listed in *Suśrutasaṃhitā sūtrasthāna* 1.39.7.

359 Ḍalhaṇa noted that this would include errhines, ointments, etc.

360 The vulgate reads *vāpi* for *cāpi*, so Ḍalhaṇa saw blood-letting and cautery as alternatives, not a sequence of treatments. Ḍalhaṇa listed the places that cauterization may be applied, such as the brow, forehead, etc.

into wicks as before. One should apply these wicks, which are good in a collyrium, to steady the pupil.

- 82 I shall again discuss the foremost collyriums at length in the *Kriyākalpa* section. Those various methods may be applied here too.

Uttaratantra, adhyāya 38

Summary of the Content

The chapter talks about various diseases of the female reproductive system and, in doing so, combines both aspects that go into a representation of diseases in āyurvedic literature: signs, symptoms and pathogenesis (*nīdāna*), on the one hand, and medical treatment (*cikitsā*), on the other. In chapters of the *Uttaratantra*, these two aspects are sometime dealt with in two different chapters *X-vijñānīya* and *X-pratiṣedha*. There are, however, many examples where this distinction is not made.

The chapter is summarized, with notes on vocabulary and references to further research literature, in [HIML](#): IA, 313.

Placement of the Chapter

In the vulgate text ([Su 1938](#)) the current chapter, 6.38, is found after the *Uttaratantra*'s subsection on paediatrics, the *Kumāratantra*, see Table 4.³⁶¹ But in the Nepalese version, this is chapter 6.58 of the *Uttaratantra*. And it is also counted as chapter 23 of the subsection *Kāyācikitsā*.

Several things are noteworthy in this regard:

- In the placement of the vulgate, this chapter follows upon 6.37 *Grahotpatti* (6.35 in the Nepalese version), a chapter that talks about the origination of nine demons (*graha*) that are responsible for all children's diseases described in previous chapters of the *Kumāratantra*. In this way, the current chapter retains the general focus on the child bearing (*kaumārabhṛtya*), but, at the same time, marks a change to a distinct, less mystical approach to the topic at hand (that could originate in a cultural milieu different from that of the preceding eleven chapters). Ḍalhaṇa explained how the chapter fits its context in the following way:

It is appropriate that, for the sake of treating the disorders of the female reproductive system, the chapter called "Countermeasures Against Disorders of the Female Reproductive System" is taught immediately after the

³⁶¹ Or *Kumārabhṛtya* as this section is named in MS Kathmandu KL 699.

Table 4: Subdivisions of the Uttarat Tantra, in the vulgate.

Section	Chapters	Internal count
Śālakya Tantra	1–26	1–26
Kumāratantra	27–38	1–12
Kāyacikitsā Tantra	39–59	1–21
Bhūta vidyā Tantra	60–62	1–3
Tantrabhūṣaṇādhyāya	63–66	1–4

chapter called “The Origination of Demons (*graha*).” It is because (1) there is an explicit mention of the word “*yonī*” in the statement “born in the womb (*yonī*) of animal and human” [in 6.37.13bc (Su 1938: 667)] and because (2) the disorders of the female reproductive system are the causes for the inborn disorders of children.³⁶²

- In the placement of the Nepalese version,
 - 6. *Yonivyāpatpratiṣedha* is preceded by
 - 6.56 *Mūtrāghāta pratiṣedha* (6.58 in Su 1938) and
 - 6.57 *Mūtrakṣcchra pratiṣedha* (6.59 in Su 1938), two chapters dealing with the diseases of the urinary tract.

The current chapter carries on with the topic of diseases that affect genitalia. In its Nepalese version, the chapter opens with two verses that explain the reasons for treating the particular set of diseases. These lack any reference to the inborn disorders of children, mentioned by Ḍalhaṇa, and instead highlight the importance of curing female diseases for the satisfaction of male partner.

- SS.1.3 in both Su 1938 and the Nepalese version lists the chapter at the place where it is found in the vulgate.³⁶³
- Parallel chapters in the *Aṣṭāṅgasamgraha* and the *Aṣṭāṅga hrdayasamhitā* form a part of the *Śālyatantra* section of each text.

362 Ḍalhaṇa on 6.38.1 (Su 1938: 668): ग्रहोत्पत्त्यध्यायानन्तरं ‘तिर्यग्योनिं मानुषं च’ इति वचनेन योनेर्नाम-संकीर्तनात् कुमारजन्मविकारकारणत्वाच्च योनेर्व्यापच्चिकित्सितार्थं योनिव्यापत्प्रतिषेधाध्यायारम्भो युज्यत [...].

363 See 1.3.37ab (Su 1938: 15): नैगमेषचिकित्सा च ग्रहोत्पत्तिः सयोनिजा ॥.

Parallels

The current chapter is parallel in its content to *Aṣṭāṅgasamgraha* 6.38 and 6.39 as well as *Aṣṭāṅgahṛdayasaṃhitā* 6.33 and 6.34 (*Guhyarogavijñāna* and *Guhyarogapratīṣedha* respectively).

A close literary parallel to the first part of the chapter is found in *Mādhavanidāna* (MN₃) 62, or at least its version printed in Y. T. Ācārya (MN₃: 361). The readings of the MN₃ as it stands now usually side with the vulgate version rather than with the Nepalese. In addition to the basic text, there are several valuable pointers made in the *Madhukośa*, an early commentary on the MN₃. This part of the text is authored by Śrīkaṇṭhadatta, who was most like a direct student of Vijarakṣita. The latter wrote the first part of the *Madhukośa*, up to chapter 32, and, what is more, can be dated to the late eleventh or early twelfth centuries.³⁶⁴

Another most interesting parallel is found in *Carakasamhitā* 6(Ci).30.

Philological notes

Metrical alterations

The first two verses in the Nepalese version, 6.38.2.1 and 6.38.4.1, are written in a classical variety of the *upajāti* metre: $\underline{\text{U}}\text{--}\underline{\text{U}}\text{--}\underline{\text{U}}\text{--}\underline{\text{U}}\text{--}\underline{\text{U}}\text{--}\underline{\text{U}}\text{--}$. In content, they are only approximately parallel to three hemistichs in *anuṣṭubh* metre found in the vulgate.³⁶⁵ The latter verses lack the apologetic explanation concerning the reasons for this chapter being taught.

The original opening verses

From verse *Suśrutasaṃhitā* 6.38.5.1 onwards, the Nepalese version of the text continues with three hemistichs in the same classical *upajāti* metre (the syllabic pattern above).³⁶⁶ By contrast, the vulgate contains two complete verses (four hemistichs) in the *anuṣṭubh* metre, again with only loosely-related content.³⁶⁷ The three final hemistichs of this group are borrowed

³⁶⁴ Meulenbeld 1974b: 22–26.

³⁶⁵ *Suśrutasaṃhitā* 6.38.3–4ab (Su 1938: 668).

³⁶⁶ The metre of these verses is not perfect.

³⁶⁷ *Suśrutasaṃhitā* 6.38.4cd–6ab (Su 1938: 668).

verbatim from the *Carakasamhitā*.³⁶⁸ We can be sure of the direction of borrowing because one of these shared verses says that the twenty kinds of diseases of the female reproductive system “have already been indicated in the *Compendium of Diseases* (rogasaṃgraha)”.³⁶⁹ This statement does not make any sense in the context of the *Suśrutasamhitā*, where no such Compendium exists.³⁷⁰ By contrast, in the *Carakasamhitā* this reference points back to chapter 1.19 (Ca 1941: 109–112), which calls itself “The Compendium of Diseases”.³⁷¹ This Compendium lists all the diseases dealt with in later sections of the text, and specifically mentions the twenty diseases of female reproductive system.³⁷² Even the vocabulary and wording of this passage is identical to the later verses. It is beyond doubt that this passage originated in the *Carakasamhitā* and was borrowed by the editors of the vulgate text of the *Suśrutasamhitā*.³⁷³

368 *Carakasamhitā* 6.30.7cd–8 (Ca 1941: 634).

369 *Suśrutasamhitā* 6.38.5ab (Su 1938: 668): विंशतिर्व्यापदो योनेर्निर्दिष्टा रोगसंग्रहे ॥ ← *Carakasamhitā* 6.30.7cd (Ca 1941: 634).

370 The remark was not commented on by Ḍalhana.

371 *Carakasamhitā* 1.19.9cd (Ca 1941: 112): रोगाध्याये प्रकाशिताः.

372 *Carakasamhitā* 1.19.3 (Ca 1941: 110): विंशतिर्योनिव्यापदः।

373 The above three hemistichs in *anuṣṭubh* are also repeated in the MN₃ 62.1–2ab. Given that the subsequent verses in the MN₃ stem from the *Suśrutasamhitā*, it is likely that MN₃ 62.1–2ab too was borrowed from the *Suśrutasamhitā* and not from its original location in the *Carakasamhitā*.

Translation

- 1 And now I shall explain the countermeasures against disorders of the female reproductive system (*yonivyāpat*).³⁷⁴
- *3 Since for good men, a woman is the most pleasurable thing, therefore a physician should diligently attend to the diseases located in the female reproductive system (*yoni*), because he is entirely devoted to it (that is, to curing these diseases) for the sake of (people's) happiness.³⁷⁵
- *4 A corrupted female reproductive system (*yoni*) cannot consume semen (*bīja*), and therefore, the woman cannot take a fetus (that is, become pregnant). She gets severe prolapses (*arśas*), abdominal lump (*gulma*) and similarly many other diseases (*roga*).
- *5 Humours (*doṣa*), wind (*vāta*), etc., corrupted due to faulty medical treatment (*mithyopacāra*),³⁷⁶ sexual activity, fate, and also defects (*doṣa*) of menstrual blood (*ārtava*) and semen (*bīja*), produce various diseases in the female reproductive organ (*yoni*). These 20 diseases are taught here distinctly and one by one along with their treatment

374 On this broad understanding of the term *yoni* as “female reproductive system” see Das 2003: pp. 572–5.

375 As our translation indicates, the sentence construction does not allow an unambiguous identification of who or what is the referent of the pronoun *tad* in the compound form *tadadhīna* ‘devoted to it.’ Our current understanding is that *tad* refers to the ‘most pleasurable thing’ mentioned in pāda a. It could, however, also refer to ‘them,’ that is, the ‘good men.’

376 In our translation of the compound मिथ्योपचार, we decided for the technical meaning of the term उपचार, that is, “medical application” or “treatment.” The combination मिथ्या+उप-√चर् is attested several times in medical literature. At least once, at *Caraka-saṃhitā* 3.3.38 (Ca 1941: 245), it is given an explicit gloss by Cakrapāṇidatta: मिथ्योपचारितानिति असम्यक् चिकित्सितान् “... given improper therapy”. In the *Suśrutasaṃhitā* (Su 1938), it is used once in a passage (6.18.30 (Su 1938: 635)) where it refers specifically to the wrong application of irrigation (*tarpaṇa*) and roasting (*puṭapāka*), both of which are mentioned in the previous verse. Another use of the compound in a similar meaning is found in a citation from Bhoja’s work quoted by Gayadāsa at *Suśrutasaṃhitā* 2.5.17 (Su 1938: 287): श्वित्रं तु द्विविधं प्रोक्तं दोषजं व्रणजं तथा। तत्र मिथ्योपचाराद्धि व्रणस्य व्रणजं स्मृतम्॥ “... arises from wrong treatment of the wound.” In contrast to this, the parallel verse in *Suśrutasaṃhitā* 6.38.5ab (Su 1938: 668) = *Caraka-saṃhitā* 6.30.8 (Ca 1941: 634) = MN₃ 62.1 reads मिथ्याचार “wrong conduct.” All commentators (Cakrapāṇidatta on the *Caraka-saṃhitā*, Śrīkaṇṭhadatta on the MN₃, and Ḍalhaṇa on the *Suśrutasaṃhitā*) explain that the wrong conduct stands here specifically for unwholesome diet. The parallel in *Aṣṭāṅgahṛdayasaṃhitā* 6.33.27 (Ah 1939: 895) = *Aṣṭāṅgasaṅgraha* 6.38.34 (As 1980: 829) plainly reads दुष्टभोजन “corrupted food” instead.

(*bheṣaja*), causes (*hetu*) and signs (*cihna*).

*6.1 Because of wind (*vāta*), female reproductive organ (*yoni*) becomes:

1. udāvartā (*udāvartā*),
2. called Infertile (*vandhyā*), and
3. Sprung (*plutā*),
4. Flooded (*pariplutā*), and
5. Windy (*vātalā*).

*6.2 And because of choler (*pitta*), occur:

1. With bloodloss (*raktakṣayā*),
2. Vomiting (*vāminī*), and
3. Causing a Fall (*sraṁsanī*),
4. Child-murderess (*putraghnī*), and also
5. Bilious / Choleric (*pittalā*).

*7.1 And because of phlegm (*kapha*) occur:

1. Extremely Excited (*atyānandā*),
2. Protuberant (*karninī*), and
3. & 4. two Caraṇī (*caraṇī*), and
5. other Phlegmatic (*śleṣmalā*).

*7.2 And similarly there are other (kinds of morbid female reproductive system) involving all *doṣas*:

1. Impotent (*śaṇḍhī*),
2. With testicles (*aṇḍīnī*),
3. two Huge (*mahatī*),
4. With a needle-like opening (*sūcīvākrā*),
5. Sarvātmikā (*sarvātmikā*).

Tantrayuktayah

Hello world!

Agrawal 1963

Editions and Abbreviations

Ah 1939	Kuṃṭe, Aṇṇā Moreśvara, Navare, Kṛṣṇaśāstrī, and Parādkar, Hariśāstrī (1939) (eds.), श्रीमद्वाग्भटविरचितम् अष्टाङ्गहृदयम्, श्रीमदरुणदत्तविरचितया सर्वाङ्गसुन्दराख्यया व्याख्यया, हेमाद्रिप्रणीतया आयुर्वेदरसायनाह्वया टीकया च समुल्लसितम् = <i>The Astāṅgahṛidaya</i> (6th edn., Mumbayyām: Nirṇayasāgara Press), ark:/13960/t3tt6967d .
Anup	<i>Anup Sanskrit Library</i> .
Apte	Apte, Vaman Shivaram (1992), <i>The Practical Sanskrit-English Dictionary</i> (Kyoto: Rinsen Book Company), ISBN: 4-653-00038-7; Reprinted from Gode and Karve 1957–59.
AS	<i>Asiatic Society</i> .
As 1980	Āṭhavale, Ananta Dāmodara (1980) (ed.), अष्टाङ्गसङ्ग्रहः श्रीमद्वृद्धवाग्भटविरचितः इन्दुव्याख्यासहितः [= <i>Vāgbhaṭa's Aṣṭāṅga-saṅgraha with Indu's Commentary</i>] (Pune: M. A. Āṭhavale, Śrīmad Ātreya Prakāśanam), ark:/13960/s25bwqsd0n7 .
AyMahā	Jośī, Veṇīmādhavaśāstrī, and Jośī, Nārāyaṇa Harī (1968), आयुर्वेदीय महाकोशः अर्थात् आयुर्वेदीय शब्दकोशः संस्कृत-संस्कृत (Mumbaī: Mahārāṣṭra Rājya Sāhitya āṇi Saṃskṛti Maṇḍala), ark:/13960/t22c41g8t .
Bhela 1921	Mookerjee, Ashutosh, and Ananta Krishna Shastri, Ved-antabisharad (1921) (eds.), <i>The Bhela Samhita. Sanskrit Text</i> (Calcutta: University of Calcutta), ark:/13960/t3sv3157j ; Based on two copies made of the Thanjavur codex unicus (MS Thanjavur TMSSML 10773, Burnell 1880: 63–4, P. P. S. Sastri 1933: #11085).
Bhela 2000	Krishnamurthy, K. H. (2000), <i>Bhela-saṃhitā. Text with English Translation, Commentary and Critical Notes</i> (Haridas Ayurveda Series, 8; Varanasi: Chaukhambha Visvabharati).
BL	<i>British Library</i> .

Ca 1941	Ācārya, Yādavaśarma Trivikrama (1941) (ed.), महर्षिणा पुनर्वसुनोपदिष्टा, तच्छिष्येणाग्निवेशेन प्रणीता, चरकदृढबलाभ्यां प्रतिसंस्कृता चरकसंहिता, श्रीचक्रपाणिदत्तविरचितया आयुर्वेददीपिकाव्याख्यया संवलिता (3rd edn., Mumbayyām: Nirnaya Sagara Press), ark:/13960/t48q2f20n .
CDIAL	Turner, R. L. (1966–85), <i>A Comparative Dictionary of the Indo-Aryan Languages</i> (London, New York, Toronto: Oxford University Press), ISBN: 0197135501, URL ; With <i>Indexes</i> compiled by Dorothy Rivers Turner (OUP, London, 1969), <i>Phonetic Analysis</i> by R. L. and D. R. Turner (OUP, London, 1971), and <i>Addenda and Corrigenda</i> edited by J. C. Wright (School of Oriental and African Studies, London, 1985).
DED ₂	Burrow, Thomas, and Emeneau, Murray B. (1984), <i>A Dravidian Etymological Dictionary</i> (2nd edn., Oxford: Clarendon Press), ark:/13960/t4wj06g26 , URL .
EWA	Mayrhofer, Manfred (1986–2001), <i>Etymologisches Wörterbuch des Altindoarischen</i> (Heidelberg: Carl Winter, Universitätsverlag), ISBN: 3-533-03826-2.
Garuḍapurāṇa	Pāṇḍeya, Rāmateja (1963) (ed.), श्रीकृष्णद्वैपायनव्यासप्रणीतं गरुडपुराणम् (Vidyabhawan Prachyavidya Granthamala, 3; reprint, Caukhambā Vidyābhavana, Paṇḍita-Pustakālaya: Kāśī), ark:/13960/t6pz7tg7j .
HIML	Meulenbeld, Gerrit Jan (1999–2002), <i>A History of Indian Medical Literature</i> , 5 vols. (Groningen: E. Forsten), ISBN: 9069801248.
IOLR	Eggeling, Julius, et al. (1887–1935), <i>Catalogue of the Sanskrit Manuscripts in the Library of the India Office</i> (London: Secretary of State for India), ark:/13960/s2k5zcrg9 .
KEWA	Mayrhofer, Manfred (1953–72), <i>Kurzgefaßtes etymologisches Wörterbuch des Altindoarischen; a Concise Etymological Sanskrit Dictionary</i> (Heidelberg: Carl Winter, Universitätsverlag).
KL	Kaiser Library.

<i>Mānasollāsa</i>	Shrigondekar, Gajanan K. (1925–61) (ed.), मानसोल्लासः = <i>Mānasollāsa [or Abhilaṣitārthacintāmaṇi]</i> of King Someśvara (Gaekwad's Oriental Series; Baroda: Oriental Institute), ark:/13960/t87h8tn95 ; v. 2: ark:/13960/t3gz41v8m .
MN ₁	Ācārya, Yādavaśarma Trivikrama (1920) (ed.), महामतिश्री-माधवकरप्रणीतं माधवनिदानम् श्रीविजयरक्षित-श्रीकण्ठदत्ताभ्यां विरचितया मधुकोशाख्यव्याख्यया, श्रीवाचस्पतिवैद्यविरचितया आतङ्कदर्पणव्याख्याया विशिष्टांशेन च समुल्लसितम् = <i>Mādhavanidāna by Mādhavakara with the Two Commentaries, Madhukosha by Vijayarakshita & Shrikanthadatta and Ātankadarpaṇa by Vāchaspati Vaidya</i> (1st edn., Bombay: Nirnaya Sagara Press), ark:/13960/t9z08jn5j .
MN ₃	Ācārya, Yādavaśarma Trivikrama (1932) (ed.), महामतिश्री-माधवकरप्रणीतं माधवनिदानम् श्रीविजयरक्षित-श्रीकण्ठदत्ताभ्यां विरचितया मधुकोशाख्यव्याख्यया, श्रीवाचस्पतिवैद्यविरचितया आतङ्कदर्पणव्याख्याया विशिष्टांशेन च समुल्लसितम् = <i>Mādhavanidāna by Mādhavakara with the Two Commentaries, Madhukosha by Vijayarakshita & Shrikanthadatta and Ātankadarpaṇa by Vāchaspati Vaidya</i> (3rd edn., Bombay: Nirnaya Sagara Press), ark:/13960/t66452x0h ; Reprinted Varanasi: Chowkhambha, 1986.
MW	Monier-Williams, Monier, Leumann, E., Cappeller, C., et al. (1899), <i>A Sanskrit–English Dictionary Etymologically and Philologically Arranged, New Edition</i> (Oxford: Clarendon Press); 1970 reprint.
NAK	<i>National Archives of Kathmandu.</i>
NCC	Raghavan, V., et al. (1949–), <i>New Catalogus Catalogorum, an Alphabetical Register of Sanskrit and Allied Works and Authors</i> , 39 vols. (Madras University Sanskrit Series; Madras: University of Madras); v.1: revised edition, 1968. Searchable at https://vmlt.in/ncc/ .
NGMCP	NGMCP (2014), “Nepal-german Manuscript Cataloguing Project. Online Title List and Descriptive Catalogue,” Universität Hamburg and Deutsche Forschungsgemeinschaft, URL .

- PW Böhrling, Otto, and Roth, Rudolph (1855–75), *Sanskrit-Wörterbuch* (St. Petersburg: Kaiserlichen Akademie der Wissenschaften), [URL](#), accessed 18/05/2023.
- PWK Böhrling, Otto (1879), *Sanskrit-wörterbuch in kürzerer fassung* (St. Petersburg: Kaiserlichen Akademie der Wissenschaften), [URL](#), accessed 18/05/2023.
- RORI *Rajasthan Oriental Research Institute*.
- Su 1889 Bhaṭṭācāryya, Jivānanda Vidyāsāgara (1889) (ed.), सुश्रुतः सूत्र-निदान-शारीर-चिकित्सा-कल्पोत्तर-तन्त्र-कल्पित आयुर्वेद. भगवता धन्वन्तरिणोपदिष्टः सुश्रुतनामधेयेन तच्छिष्येण विरचितः (3rd edn., Calcutta: Saratī Press), [ark:/13960/t1nh6j09c](#); [HIML](#): IB, 311, edition b.
- Su 1915 Ācārya, Yādavaśarma Trivikrama (1915) (ed.), सुश्रुतसंहिता, सुश्रुतेन विरचिता, वैद्यवरश्रीडल्हणाचार्यविरचितया निबन्धसंग्रहाख्यव्याख्यया समुल्लसिता, आचार्योपाह्वेन त्रिविक्रमात्मजेन यादवशर्मणा संशोधिता = *The Sushrutasamhita of Sushruta, the Nibandhasangraha Commentary of Shri Dalhanāchārya* (Mumbayyām: Nirṇayasāgaramudrāyantrālaye), [ark:/13960/t3sv0mt50](#), accessed 29/07/2020; [HIML](#): IB, 312 edition *v.
- Su 1931 Ācārya, Yādavaśarma Trivikrama (1931) (ed.), सुश्रुतसंहिता, वैद्यवरश्रीडल्हणाचार्यविरचितया निबन्धसंग्रहाख्यव्याख्यया समुल्लसिता, महर्षिणा सुश्रुतेन विरचिता, सूत्र-निदान-शारीर-चिकित्सा-कल्पस्थानोत्तरतन्त्रात्मकः. आचार्योपाह्वेन त्रिविक्रमात्मजेन यादवशर्मणा संशोधिता = *The Sushrutasamhitā of Sushruta with the Nibandhasangraha Commentary of Shree Dalhanāchārya* (2nd edn., Mumbayyām: Pāṇḍuraṅga Jāvajī at the Nirṇayasāgaramudrāyantrālaye), [ark:/13960/t9j41sg94](#), accessed 09/06/2020; [HIML](#): IB, 312 edition *v.
- Su 1938 Ācārya, Yādavaśarma Trivikrama, and Ācārya, Nārāyaṇa Rāma (1938) (eds.), श्रीडल्हणाचार्यविरचितया निबन्धसंग्रहाख्यव्याख्यया निदानस्थानस्य श्रीगयदासाचार्यविरचितया न्यायचन्द्रिकाख्यपञ्जिका-व्याख्यया च समुल्लसिता महर्षिणा सुश्रुतेन विरचिता सुश्रुतसंहिता (3rd edn., Bombay: Nirṇayasāgara Press), [ark:/13960/t09x0sk1h](#); [HIML](#): IB, 313, edition cc ('the vulgate').

- Su 1938² Ācārya, Yādavaśarma Trivikrama, and Ācārya, Nārāyaṇa Rāma (2004) (eds.), महर्षिणा सुश्रुतेन विरचिता सुश्रुतसंहिता, श्रीडल्हणाचार्यविरचितया निबन्धसंग्रहाख्यव्याख्यया निदानस्थानस्य श्रीगयदासाचार्यविरचितया न्यायचन्द्रिकाख्यपञ्जिकाव्याख्यया च समुल्लसिता (Vārāṇasī: Caukhambhā Kṛṣṇadāsa Akādamī); Reprint of the third, 1938 edition ([Su 1938](#)).
- Su 1939 Ācārya, Yādavaśarma Trivikrama, and Śarman, Nandakiśora (1939) (eds.), सुश्रुतसंहितायाः सूत्रस्थानम्. श्रीचक्रपाणिदत्तविरचितया भानुमतीव्याख्याया समेतम् = *Sushrut-saṁhitā (sūtra Sthān) with Bhānumatī Commentary by Chakrapāṇi Datta with Introduction by Gaṇanāth Sen* (Śrīsvāmi Lakṣmīrāma Nidhi Granthamālā = Shri Swāmī Lakshmi Rām Trust Series, 1; [Jaipur]: Śyāmasundara Śarman), [ark:/13960/t54g0d12m](#); Printed at the Nirṇayasāgara Press, Bombay.
- Su 1945 Ācārya, Yādavaśarma Trivikramācārya, and Ācārya, Nārāyaṇa Rāma (1945) (eds.), महर्षिणा सुश्रुतेन विरचिता सुश्रुतसंहिता (मूलमात्रा). पाठान्तर-परिशिष्टादिभिः संवलिता = *the Suśrutasaṁhitā of Suśruta with Various Readings, Notes and Appendix etc.* (Mumbāi: Nirṇayasāgarākhyamudraṇālaye), [ark:/13960/t8kd4jh7n](#).
- TMSSML *Tanjore Maharaja Serfoji Saraswati Mahal Library.*
- Viṣṇudh. Śarman, Madhusūdana, and Śarman, Mādhavaprasāda (1912) (eds.), विष्णुधर्मोत्तरपुराणम् = [*Viṣṇudharmottarapurāṇa*] (Mumbai: Khemarāja Śrīkṛṣṇadāsa at the Śrīveṅkaṭeśvara Steam Press), [ark:/13960/t6qz6fr23](#); Lithograph format. Edited on the basis of a manuscript belonging to the astrologer Śudhākaraśarman of the Varanasi Sanskrit Pāṭhaśālā.

Index of Manuscripts

Numbers after the final colon refer to pages in this book.

Bikaner RORI 5157: 52

Cambridge Add. 1693: 48

Kathmandu KL 699: 51, 97

Kathmandu NAK 5-333: 48, 53, 76

NAK 5-333: 65

Thanjavur TMSSML 10773: 104

Glossary

‘angry beetles’	- chebulic	- stirred with
- <i>toṭaka</i> : 73	myrobalan: 86	goat’s milk: 95
‘bellied’	<i>abhramukta</i>	<i>ajeya</i>
- <i>kuṣṭita</i> : 73	- free from	- invincible: 57
‘cook-fish’	clouds: 93	- “invincible”:
- <i>pākamatsya</i> : 73	<i>abhyāṅga</i>	71
‘darts’	- massage oil:	<i>akhiladehavyāptirūpam</i> ■
- <i>śārikā</i> : 73	50, 56	- takes the form
‘earth scorpions’	- oil massage: 54	of pervading the
- <i>viśvambhara</i> : 73	<i>Aconite</i>	whole body: 66
‘flat insects’	- hālāhala: 65	<i>ālepa</i>
- <i>picciṭā</i> : 73	<i>adhimantha</i>	- liniment: 84
‘lids’	- irritation: 94	<i>ālepana</i>
- <i>śārava</i> : 73	<i>adhiṣṭhāna</i>	- liniments: 56
‘liquors’	- base,	alleviated
- <i>medaka</i> : 73	foundation: 72	- <i>yāpya</i> : 87
‘orange-dwellers’	- carriers: 72	<i>āmalaka</i>
- <i>kaśāyavāsika</i> :	<i>ādhmāna</i>	- emblic: 85
73	- distension: 63	<i>āmāśaya</i>
‘pepper snakes’	<i>adhodṛṣṭitva</i>	- stomach: 67f
- <i>sarṣapaka</i> : 73	- downward	<i>amra</i>
‘poisonous snakes’	vision: 94	- mango: 85
- <i>pracalāka</i> : 73	affliction	<i>amṛta</i>
‘pot insects’	- <i>upasarga</i> : 56	- immortal: 57
- <i>kaunḍinya</i> : 73	<i>agada</i>	<i>ānāha</i>
‘speckle-heads’	- antidote: 68	- constipation:
- <i>citraśīrṣa</i> : 73	<i>agra</i>	64, 67, 71
‘wing-scorpions’	- supernatant	<i>aṇḍīnī</i>
- <i>patravṛścika</i> : 73	layer: 89	- with testicles:
‘wood-enemies’	<i>agramukta</i>	102
- <i>dārukāri</i> : 73	- free from the	<i>aṅga</i>
abdominal lump	point: 93	- aids: 87
- <i>gulma</i> : 101	aids	<i>aṅgamarda</i>
<i>abhayā</i>	- <i>aṅga</i> : 87	- bruising of the
	<i>ajākṣīrārdita</i>	limbs: 67
		<i>añjana</i>

- application of
collyrium: 84, 89
 - eye make-up:
50, 55
 - eye ointment:
56
 - eye salve: 68
 - stibnite: 89
annamada
 - intoxication
from food: 67
 antidote
 - *agada*: 68
antra
 - entrails: 87
 - gut: 68
anulepana
 - massage
ointment: 50, 54
 - ointment: 54
apāṅga
 - outer corner of
the eye: 92
 apertures of the
head
 - *kha*: 55
 application of
collyrium
 - *añjana*: 84, 89
araga timira
 - non-bloodshot
blindness: 91
 arid-land animals
 - *jāṅgala*: 90
arṇavamala
 - cuttle fish: 86
arocaka

- loss of
appetite: 67
arśas
 - prolapses: 101
ārtava
 - menstrual
blood: 101
asādhya
 - incurable: 84
 - untreatable: 91
aśoka
 - asoka tree: 85
 asoka tree
 - *aśoka*: 85
aṣṭhīlā
 - pebble: 52
atibalā
 - strong mallow:
88
āṭopa
 - flatulence: 53
atyānandā
 - extremely
excited: 102
avadāraṇa
 - fissuring: 56
avalekhana
 - combs: 50
āvarta
 - spiral: 91
avaśardhita
 - fart: 72
 axelwood
 - *dhava*: 95
balā
 - country
mallow: 88

bali
 - morsel: 50
 base, foundation
 - *adhiṣṭhāna*: 72
bāṣpa
 - vapour: 51f, 55
 be exhausted
 - *sāda*: 68
 bearers
 - *voḍhāra*: 50
 beauty berry
 - *priyaṅgu*: 89
 beautyberry
 - *priyaṅgu*: 85
 bellyache
 - *jaṭhara*: 71
 bent brow and eye
 - *vakrabhrūnetra*:
93
 beryl
 - *vaiḍūrya*: 95
bhadradāru
 - deodar: 95
bhaṅga
 - leaves: 92
bhavet
 - it may be: 91
bhāvita
 - cooked: 90
 - infused: 85
bheṣaja
 - treatment: 102
bhramaraka
 - drongo: 51
bhr̥ṅgarāja
 - racket-tailed
drongo: 51
bīja

- semen: 101
 bile
 - *pitta*: 87
 bilious / choleric
 - *pittalā*: 102
 black drongo
 - *dhūmyāṭa*: 51
 black part
 - *kṛṣṇa*: 92
 black pepper
 - *marica*: 85
 black soot
 - *maṣī*: 84
 blindness
 - *timira*: 91
 blood
 - *śonita*: 87
 blood-bile
 - *śonita-pitta*,
 rakta-pitta: 87
 blood-letting
 - *sirāvedha*: 84
 bloodshot blindness
 - *rāgin timira*: 89
 - *rāgiṇi timire*: 91
 blue dot cataract
 - *mlāyin*: 91
 blue lotus
 - *utpala*: 85
 blue vitriol
 - *tuttha*: 89
 bodily constituents
 - *dhātu*: 66
 body language
 - *īṅgita*: 50
 body tissue
 - *dhātu*: 67
 box myrtle

- *kaṭphala*: 86
 bristles
 - *śūka*: 72
 bruising of the
 limbs
 - *aṅgamarda*: 67
 bubbling
 - *budbuda*: 94
budbuda
 - bubbling: 94
 bull
 - *vṛṣabha*: 51
cala
 - liquid: 92
 can be mitigated
 - *yāpya*: 91
caraṇī
 - *caraṇī*: 102
caraṇī
 - *caraṇī*: 102
 cardamom
 - *elā*: 86
 carnivore
 - *kravyabhuj*: 88
 carriers
 - *adhiṣṭhāna*: 72
 cassia cinnamon
 - *patra*: 94
 castor oil
 - *pañcāṅgulataila*:
 87
cāsyāt
 - from his
 mouth: 52
 cataract
 - *liṅganāśa*: 91
 caused by wind

- *pavanodbhava*:
 87
 causes
 - *hetu*: 102
 causing a fall
 - *sraṃsanī*: 102
 causing the
 destruction of
 actions such as
 moving
 -
 gamanādikriyāvināśakarī:
 94
 chebulic myrobalan
 - *abhayā*: 86
 chest
 - *hṛd*: 68
chidra
 - opening: 92
 child bearing
 - *kaumārabhṛtya*:
 97
 child-murderess
 - *putraghnī*: 102
 chital deer
 - *prṣata*: 51
 choler
 - *pitta*: 102
 chyle
 - *rasa*: 67
cihna
 - signs: 102
 circuit of the pupil
 - *drṣṭimaṇḍala*:
 92
citraśīrṣa
 - 'speckle-
 heads': 73

citron
 - *mātuluṅga*: 94
 clean
 - *pra√sādh*: 56
 cock
 - *tāmracūḍa*: 88
 combined
 - *upahita*: 87
 combs
 - *avalekhana*: 50
 compendium of
 diseases
 - *rogasaṃgraha*:
 100
 compounds
 - *yoga*: 84
 conch
 - *salilotthita*: 90
 cone snails
 - *śambūka*: 73
 constipation
 - *ānāha*: 64, 67,
 71
 contamination
 dropsy
 - *duṣyodara*: 67
 cooked barley
 - *yavaudana*: 91
 cooked
 - *bhāvita*: 90
 copper
 - *tāmra*: 94
 coral
 - *vidruma*: 95
coṣa
 - driness: 94
 cottony jujube
 - *kākolī*: 95

counteraction
 - *pratiṣedha*: 84
 country mallow
 - *balā*: 88
 cow's flesh
 - *gomāṃsa*: 85
 cow's urine
 - *gomūtra*: 86
 cow-dung
 - *gośakṛt*: 85
 crabs
 - *uccītiṅga*: 73
 crow's foot
 - *kākapada*: 69
cuñcumālaka
 - little ring of
 spots: 83
 curable
 - *sādhya*: 84
 curds
 - *dadhi*: 53, 57
 cure
 - *siddhi*: 69
 cured
 - *sādhya*: 71
 cuscus grass
 - *uśīra*: 89f
 cutting with a blade
 - *śastrakṣata*: 84
 cuttle fish
 - *arṇavamala*: 86
 cuttlefish bone
 - *phena*: 95
 - *samudraphena*:
 86
dadhi
 - curds: 53, 57

daivakṛte
 - naturally-
 occurring: 92
dantamāṃsa
 - flesh of the
 tooth: 53
dantaveṣṭa
 - enclosure of a
 tooth: 53
darita
 - torn: 83
 dark colour
 - *dhyāma*: 65
dārukāri
 - 'wood-
 enemies': 73
dārvī
 - tree turmeric:
 85
datta
 - given: 51
 decoction
 - *kvātha*: 68
 decoctions
 - *kaṣāya*: 50, 93
 deer
 - *eṇa*: 88
 defects
 - *doṣa*: 101
 delirium
 - *moha*: 63
 demons
 - *graha*: 98
 demons
 - *graha*: 97
 deodar
 - *bhadrādāru*: 95
 desert date

- *īṅgudī*: 90
dhātrī
 - emblic: 86
dhātu
 - bodily
 constituents: 66
 - body tissue: 67
 - element: 59,
 62, 64
dhava
 - axelwood: 95
dhūma
 - inhaled smoke:
 50
dhūmadarśin
 - seeing smoke:
 84
dhūmyāṭa
 - black drongo:
 51
dhvāma
 - dark colour: 65
 - grimy: 50
 discharge
 - *praseka*: 64
 - *srāva*: 54, 56
 diseases
 - *roga*: 101
 disjunction
 - *viśleṣa*: 67
 disorders of the
 female
 reproductive
 system
 - *yonivyāpat*: 101
 distension
 - *ādhmāna*: 63
doṣa

- defects: 101
 - humour: 66, 91
 - humours: 101
doṣapariplava
 - unsteadiness
 of the humours:
 93
 double
 - *yamalā*: 53
 downward vision
 - *adhodṛṣṭitva*: 94
drākṣā
 - grapes: 95
dravāñjana
 - liquid
 collyrium: 89
 dried ginger
 - *nāgara*: 86
 driness
 - *coṣa*: 94
 drongo
 - *bhramaraka*: 51
drṣṭi
 - pupil: 84, 92f
drṣṭimaṇḍala
 - circuit of the
 pupil: 92
drṣṭivibhrama
 - faulty vision:
 56
 dry rub
 - *utsādana*: 54
 dry rubs
 - *utsādana*: 50
 dry
 - *rūkṣa*: 66
 dung beetles
 - *varcaḥkīṭa*: 73

dūrvā
 - panic grass: 94
dūṣī-viṣa
 - slow-acting
 poison: 67
dūṣīviṣa
 - slow-acting
 poison: 71
dūṣīviṣāri
 - enemy of
 slow-acting
 poison: 71
 - slow-acting
 poison antidote:
 53
duṣyodara
 - contamination
 dropsy: 67
 dwindling away
 - *kṣaya*: 67
elā
 - cardamom: 86
 element
 - *dhātu*: 59, 62,
 64
 elephant/snake
 - *nāga*: 74
 elixir salve
 - *rasāñjana*: 85,
 89f
 elixir-salve
 - *rasāñjana*: 85
 elixir-salve
 - *śīta*: 85
 embelia
 - *vidaṅga*: 90
 emblic

- *āmalaka*: 85
 - *dhātrī*: 86
eṇa
 - deer: 88
 enclosed roasting
 - *puṭākhyā*: 88
 - *puṭapāka*: 90
 enclosure of a tooth
 - *dantaveṣṭa*: 53
 ends
 - *vaktra*: 94
 enemy of
 slow-acting
 poison
 - *dūṣṭviṣāri*: 71
 entrails
 - *antra*: 87
 errhine
 - *nasya*: 88
 errhines
 - *nasya*: 56
 expansive
 - *vikāsin*: 66
 expressed juice
 - *svarasa*: 85
 extract
 - *niryāsa*: 56
 extract of rohu carp
 - *rauhita*: 85
 extracted juice
 - *svarasa*: 55
 extracts
 - *rasa*: 89
 extremely excited
 - *atyānandā*: 102
 eye make-up
 - *añjana*: 50, 55
 eye ointment

- *añjana*: 56
 eye salve
 - *añjana*: 68
 eyewash
 - *tarpaṇa*: 56, 84, 89f
 fart
 - *avaśardhita*: 72
 fat
 - *vasā*: 88
 faulty medical
 treatment
 - *mithyopacāra*: 101
 faulty vision
 - *dṛṣṭivibhrama*: 56
 female reproductive
 organ
 - *yoni*: 101f
 female reproductive
 system
 - *yoni*: 101
 filaments
 - *kiñjalka*: 85
 fissuring
 - *avadāraṇa*: 56
 flame of the forest
 - *palāśa*: 89
 flatulence
 - *āṭopa*: 53
 flesh
 - *māṃsa*: 54
 flesh of the tooth
 - *dantamāṃsa*: 53
 flooded
 - *pariplutā*: 102

follicles
 - *kha*: 54
 free from clouds
 - *abhramukta*: 93
 free from the point
 - *agramukta*: 93
 from his mouth
 - *cāsyāt*: 52
gairika
 - ochre: 84f
gairikaḥ
 - red chalk: 94
gamanādikriyāvināśakārī ■
 - causing the
 destruction of
 actions such as
 moving: 94
 garlands
 - *sraja*: 50
 geckos
 - *grhagoḍikā*: 73
 general rule
 - *paribhāṣā*: 90
 gently
 - *mṛdu*: 94
 ghee
 - *sarpis*: 84
 - *sarpis*: 57
 given
 - *datta*: 51
 glassy opacity
 - *kāca*: 89
godhā
 - monitor lizard:
 87
 gold
 - *śātakumbhī*: 94

gomāṃsa
 - cow's flesh: 85
gomūtra
 - cow's urine: 86
gośakṛt
 - cow-dung: 85
 - juice of
 cow-dung: 85
graha
 - demons: 98
 - demons: 97
granthi
 - knots: 65
 - lumps: 54, 64
grapes
 - *drākṣā*: 95
great aconite
 - *mahāviṣa*: 65
great fragrance
 - *mahāsugandha*:
 56
great poison
 - *mahāviṣa*: 65
green vitriol
 - *kāsīsa*: 90
gr̥hadhūma
 - soot: 78
gr̥hagoḍikā
 - geckos: 73
grimy
 - *dhyāma*: 50
gruel
 - *yavāgū*: 69
guḍikā
 - pill: 85
gulma
 - abdominal
 lump: 101

guṇa
 - qualities: 65
gut
 - *antra*: 68
hālāhala
 - *Aconite*: 65
hare foot uraria
 - *pr̥thakparṇī*: 95
hareṇu
 - *hareṇu*: 85f
hareṇu
 - *hareṇu*: 85f
hareṇu
 - *hareṇu*: 85
hareṇu
 - *hareṇu*: 86
hari
 - sun: 92
haridrā
 - turmeric: 90
harṣa
 - horripilation:
 67
heart protected
 - *hr̥dayāvaraṇa*:
 57
hetu
 - causes: 102
himalayan cherry
 - *padmaka*: 95
hoarseness
 - *pāruṣya*: 64
holostemma
 - *payasyā*: 94
honey collyrium
 - *kṣaudrāñjana*:
 86

honey
 - *kṣaudra*: 85
 - *madhu*: 85
 - *madhus*: 51
horripilation
 - *harṣa*: 67
horseradish tree
 - *śigru*: 90
hr̥d
 - chest: 68
hr̥dayāvaraṇa
 - heart
 protected: 57
huge
 - *mahatī*: 102
humour
 - *doṣa*: 66, 91
humours
 - *doṣa*: 101
if, then not
 - *na ced*: 92
illness
 - *ruj*: 86
immortal
 - *amṛta*: 57
impotent
 - *śaṇḍhī*: 102
in those cases
 - *tatra*: 87
in yama's direction
 - *yāmya*: 78
incurable
 - *asādhya*: 84
indian lotus
 - *nalina*: 85
indian madder
 - *mañjiṣṭhā*: 94

indian sarsaparilla

- *kālānusāriva*:

86

- *śārīvā*: 94

- *sāriva*: 86

- *śārīvā*: 94

indigo

- *nīlī*: 53

infertile

- *vandhyā*: 102

inflamed

- *vidagdha*: 84

infused

- *bhāvita*: 85

iṅgita

- body

language: 50

iṅgudī

- desert date: 90

inhaled smoke

- *dhūma*: 50

injured

- *utpīḍita*: 91

inspissation

- *rasakriyā*: 90

intestines

- *pakvādhāna*: 68

- *pakvāśaya*: 53,

67

intoxication from

food

- *annamada*: 67

invincible

- *ajeya*: 57

irrigated

- *pratipūraṇa*: 55

irrigation

- *seka*: 84

- *tarpaṇa*: 101

irritation

- *adhimantha*: 94

it may be

- *bhavet*: 91

jambu

- *jambū*: 85

jambū

- jambu: 85

jāṅgala

- arid-land

animals: 90

jaṅgama

- mobile: 59

jaṭhara

- bellyache: 71

jātī

- royal jasmine:

95

juice of cow-dung

- *gośakṛt*: 85

juices

- *rasa*: 88

kāca

- glassy opacity:

89

kākapada

- crow's foot: 69

kākolī

- cottony jujube:

95

kālānusāriva

- indian

sarsaparilla: 86

kalka

- mash: 71

kalpa

- procedure: 81

- rule: 72

kaṇabha

- wasps: 73

kaṇṭaka

- spots: 55

kapha

- mucus: 55

- phlegm: 64,

66, 68, 102

kapittha

- wood apple:

85

- wood apple:

85

karma

- regimen: 93

karṇinī

- protuberant:

102

kārśmarī

- white teak: 85

kaṣāya

- decoctions: 50,

93

kaṣāyavāsika

- 'orange-

dwellers': 73

kāśīpati

- lord of kāśī: 49

kāśīsa

- green vitriol:

90

kaṭphala

- box myrtle: 86

kaumārabhṛtya

- child bearing:
 97
kaunḍinya
 - 'pot insects':
 73
kavala
 - mouthwash:
 54
kha
 - apertures of
 the head: 55
 - follicles: 54
khara
 - rough: 93
kinihī
 - white siris: 90
kiñjalka
 - filaments: 85
 kitchen
 - *mahānasa*: 50
kiṭīpa
 - lice: 73
 knots
 - *granthi*: 65
 kohl
 - *srotas*: 88
 - *srotoja*: 86, 95
koṭha
 - skin disease:
 67
kravyabhuj
 - carnivore: 88
kṛcchra
 - with difficulty:
 91
kriyā
 - treatment: 90
kriyāsaṅga

- loss of
 function: 93
kṛṣṇa
 - black part: 92
kṛṣṇā
 - long pepper:
 84
kṣaṇadāndhya
 - night
 blindness: 86
kṣāraka
 - lye: 89
kṣaudra
 - honey: 85
kṣaudrāñjana
 - honey
 collyrium: 86
kṣaya
 - dwindling
 away: 67
kṣīra
 - milky sap: 59,
 61, 64
kukṣita
 - 'bellied': 73
kupyaka
 - metal: 85
kuśa grass
 - *kuśa*: 89
kuśa
 - *kuśa* grass: 89
kuṣṭha
 - pallid skin
 disease: 67
kvātha
 - decoction: 68
 lac

- *lākṣā*: 95
lākṣā
 - lac: 95
 layer
 - *paṭala*: 91
 leaves
 - *bhaṅga*: 92
 lice
 - *kiṭīpa*: 73
 limpid
 - *viśada*: 66
liṅga
 - symptom: 55
 - symptoms: 67
liṅganāśa
 - cataract: 91
 liniment
 - *ālepa*: 84
 liniments
 - *ālepana*: 56
 liquid
 - *cala*: 92
 liquid collyrium
 - *dravāñjana*: 89
 liquorice
 - *madhuka*: 85
 - *madhukair*: 95
 little ring of spots
 - *cuñcumālaka*:
 83
 liver extract
 - *yakṛdrasa*: 86
 liver
 - *yakṛt*: 86f
 lodh tree
 - *lodhra*: 85, 89
lodhra

- lodh tree: 85,
 89
 long pepper
 - *kṛṣṇā*: 84
 - *māgadha*: 90
 - *māgadhi*: 87
 - *māgadhī*: 86, 89
 - *pippali*: 85
 loose stool
 - *viḍbheda*: 64, 75
 lord of *kāśī*
 - *kāśīpati*: 49
 loss of appetite
 - *arocaka*: 67
 loss of function
 - *kriyāsaṅga*: 93
 lotus-spots
 - *padminīkaṇṭaka*:
 55
 lumps
 - *granthi*: 54, 64
 lye
 - *kṣāraka*: 89

madhu
 - honey: 85
madhuka
 - liquorice: 85
madhūka
 - mahua: 88ff
madhukair
 - liquorice: 95
madhus
 - honey: 51
madira
 - spirits: 89
madirā
 - spirits: 86

māgadha
 - long pepper:
 90
māgadhi
 - long pepper:
 87
māgadhī
 - long pepper:
 86, 89
mahānasa
 - kitchen: 50
mahāsugandha
 - great
 fragrance: 56
mahatī
 - huge: 102
mahāviṣa
 - great aconite:
 65
 - great poison:
 65
mahua
 - *madhūka*: 88ff
māṃsa
 - flesh: 54
māṃsanirgama
 - prolapse: 94
manahśilā
 - realgar: 86,
 89f, 95
 - red arsenic:
 85f
maṇḍala
 - round
 blotches: 67
mango
 - *amra*: 85
mañjiṣṭhā

- indian
 madder: 94
marica
 - black pepper:
 85
markaṭa
 - *monkey*: 65
mash
 - *kalka*: 71
maṣī
 - black soot: 84
 massage oil
 - *abhyāṅga*: 50,
 56
 massage ointment
 - *anulepana*: 50,
 54
mātuluṅga
 - citron: 94
 matured
 - *vipakva*: 85
medaka
 - 'liquors': 73
 medicines cooked
 in a crucible
 - *puṭapāka*: 84
 men
 - *nara*: 73
 menstrual blood
 - *ārtava*: 101
meṣaśṛṅga
 - periploca of the
 woods: 95
meṣaviṣāṇa
 - periploca of
 the woods: 87
 metal
 - *kupyaka*: 85

milk
 - *payas*: 57
 milky sap
 - *kṣīra*: 59, 61, 64
 misshapen eyeball
 - *vilocana*: 93
mithyopacāra
 - faulty medical
 treatment: 101
 mitigatable
 - *yāpya*: 84
mlāyīn
 - blue dot
 cataract: 91
 mobile
 - *jaṅgama*: 59
moha
 - delirium: 63
 monitor lizard
 - *godhā*: 87
 monkey
 - *markaṭa*: 65
 monkey
 - *vānara*: 73
 morsel
 - *bali*: 50
 mouthwash
 - *kavala*: 54
mṛdu
 - gently: 94
 mucus
 - *kapha*: 55
mudga
 - mung beans:
 91
mukhasaṃdaṃśā
 - nipping with
 the mouth: 72

muktā
 - pearl: 91
muktvā
 - separate: 92
mūlaka
 - *mūlaka*: 65
mūlaka
 - *mūlaka*: 65
 mung beans
 - *mudga*: 91
mūrcchā
 - stupor: 52
mustā
 - nutgrass: 95
mustaka
 - *mustaka*: 65
mustaka
 - *mustaka*: 65
 myrobalan
 - *pathyā*: 85
na ced
 - if, then not: 92
nadīja
 - salt: 85
nāga
 - elephant/
 snake: 74
nāgara
 - dried ginger:
 86
nalada
 - spikenard: 90
nalina
 - indian lotus:
 85
nara
 - men: 73

nasal medicine
 - *nasya*: 68
 nasal medicines
 - *nasya*: 84
nasya
 - errhine: 88
 - errhines: 56
 - nasal
 medicine: 68
 - nasal
 medicines: 84
 - snuff: 55
nasya
 - *snuff*: 50
 naturally-occurring
 - *daivakṛte*: 92
 needle
 - *sūcī*: 92
 night blindness
 - *kṣaṇadāndhya*:
 86
niḥkvātha
 - stewed juice:
 69
nīlī
 - indigo: 53
 nipping with the
 mouth
 -
 mukhasaṃdaṃśā:
 72
nirviṣa
 - without
 venom: 83
niryāsa
 - extract: 56
 - resin: 59, 61, 64
niśācara

- nocturnal
 creature: 90
niṣevita
 - prepared: 88
 - used: 87
 nocturnal creature
 - *niśācara*: 90
 non-bloodshot
 blindness
 - *araga timira*: 91
 non-flowering tree
 - *vanaspati*: 90
 numbness
 - *svāpa*: 56
 nutgrass
 - *mustā*: 95
 ochre
 - *gairika*: 84f
 off his hand
 - *sapāṇa*: 88
 oil massage
 - *abhyaṅga*: 54
 ointment
 - *anulepana*: 54
 - *pralepa*: 52, 55
 opening
 - *chidra*: 92
 ophidian
 - *sarpita*: 83
 or not distorted
 - *vāvikṛtā*: 53
 outer corner of the
 eye
 - *apāṅga*: 92
padmaka
 - himalayan
 cherry: 95

padminīkaṇṭaka
 - lotus-spots: 55
 pain
 - *śūla*: 68
pāka
 - sepsis: 56
pākamatsya
 - 'cook-fish': 73
pakvādhāna
 - intestines: 68
pakvāsaya
 - intestines: 53,
 67
palāśa
 - flame of the
 forest: 89
pallava
 - shoots: 92
 pallid skin disease
 - *kuṣṭha*: 67
pañcāṅgulataila
 - castor oil: 87
 panic grass
 - *dūrvā*: 94
paribhāṣā
 - general rule:
 90
pariplutā
 - flooded: 102
parīṣeka
 - shower: 54
parśvabheda
 - ribs crack: 68
 partial blindness
 - *timira*: 87
pāruṣya
 - hoarseness: 64
paṭala

- layer: 91
pāthā
 - velvet leaf: 90
pathyā
 - myrobalan: 85
patra
 - cassia
 cinnamon: 94
patraṇṣcika
 - 'wing-
 scorpions': 73
pavanodbhava
 - caused by
 wind: 87
payas
 - milk: 57
payasyā
 - holostemma:
 94
 pearl
 - *muktā*: 91
 pebble
 - *aṣṭhīlā*: 52
 periploca of the
 woods
 - *meṣaviṣāṇa*: 87
 periploca of the
 woods
 - *meṣaśṛṅga*: 95
 pervasive
 - *vyāvāyin*: 66
phena
 - cuttlefish
 bone: 95
 phlegm
 - *kapha*: 64, 66,
 68, 102
 phlegmatic

- śleṣmalā: 102
picciṭā
 - 'flat insects':
 73
pīḍ-
 - press: 92
 piercing
 - vyadha: 92
 pigs' eye
 - sūkarākṣitā: 94
 pill
 - guḍikā: 85
pippali
 - long pepper:
 85
 pith
 - sāra: 59, 61, 64
pitta
 - bile: 87
 - choler: 102
pittalā
 - bilious /
 choleric: 102
plīhan
 - spleen: 87
plutā
 - sprung: 102
pra√sādh
 - clean: 56
pra√kuth
 - rot: 53
prabha
 - shine: 91
pracalāka
 - 'poisonous
 snakes': 73
pragāḍha
 - steeped: 88

pralāpa
 - ranting: 63
pralepa
 - ointment: 52,
 55
praseka
 - discharge: 64
pratīkāra
 - remedy: 84
pratipūraṇa
 - irrigated: 55
pratisāraṇa
 - rub: 53
 - rubbing: 53
pratiśedha
 - counteraction:
 84
 prepared
 - niṣevita: 88
 prepared with
 tilvaka
 - tailvaka: 84
 prepared with
 turpeth
 - traiṇṛta: 84
 press
 - pīḍ-: 92
priyaṅgu
 - beautyberry:
 85
priyaṅgu
 - beauty berry:
 89
 probe
 - śalākā: 92f
 procedure
 - kalpa: 81
 prolapse

- māmṣanirgama:
 94
 prolapses
 - arśas: 101
 protuberant
 - karṇinī: 102
prṣata
 - chital deer: 51
prthakparṇī
 - hare foot
 uraria: 95
puṇḍarīka
 - puṇḍarīka: 65
puṇḍarīka
 - puṇḍarīka: 65
 pupil
 - drṣṭi: 84, 92f
puṭāhvaya
 - taken hot: 89
puṭākhyā
 - enclosed
 roasting: 88
puṭapāka
 - enclosed
 roasting: 90
 - medicines
 cooked in a
 crucible: 84
 - roasting: 101
putraghnī
 - child-
 murderess: 102
 qualities
 - guṇa: 65
 racket-tailed
 drongo

- *bhṛṅgarāja*: 51
rāgin timira
 - bloodshot
 blindness: 89
rāgiṇi timire
 - bloodshot
 blindness: 91
rajana
 - turmeric: 86
rājimat
 - striped snake:
 69
raktakṣayā
 - with
 bloodloss: 102
 ranting
 - *pralāpa*: 63
 rarified
 - *sūkṣma*: 66
rasa
 - chyle: 67
 - extracts: 89
 - juices: 88
 - the blood of
 birds and
 animals: 85
rasakriyā
 - inspissation:
 90
rasāñjana
 - elixir salve: 85,
 89f
 - elixir-salve: 85
rauhita
 - extract of rohu
 carp: 85
 realgar

- *manaḥśilā*: 86,
 89f, 95
 red arsenic
 - *manaḥśilā*: 85f
 red chalk
 - *gairikaḥ*: 94
 regimen
 - *karma*: 93
 remedy
 - *pratīkāra*: 84
 resin
 - *niryāsa*: 59, 61,
 64
 restrictions
 - *yantraṇā*: 93
 rheum
 - *upadeha*: 56
 ribs crack
 - *parśvabheda*: 68
 rigid
 - *sthira*: 93
 roasting
 - *puṭapāka*: 101
roga
 - diseases: 101
rogasaṃgraha
 - compendium
 of diseases: 100
rohita
 - *rohita* tree: 89
rohita tree
 - *rohita*: 89
 rot
 - *prā√kuth*: 53
 rough
 - *khara*: 93
 round blotches
 - *maṇḍala*: 67

royal jasmine
 - *jātī*: 95
 rub
 - *pratisāraṇa*: 53
 rubbing
 - *pratisāraṇa*: 53
ruj
 - illness: 86
rūkṣa
 - dry: 66
 rule
 - *kalpa*: 72
sāda
 - be exhausted:
 68
sādhya
 - curable: 84
 - cured: 71
saindhava
 - salt: 68
 - sind salt: 84,
 86
 - sindh salt: 89
 sal tree
 - *śālā*: 85
śālā
 - sal tree: 85
śalākā
 - probe: 92f
salilotthita
 - conch: 90
 - water-born: 90
 saliva
 - *śleṣman*: 52
 salt
 - *nadīja*: 85
 - *saindhava*: 68

samāñjana
 - same
 collyrium: 89
śambūka
 - cone snails: 73
 same collyrium
 - *samāñjana*: 89
samudraphena
 - cuttlefish
 bone: 86
 sandal
 - *sugandhi*: 87
śaṇḍhī
 - impotent: 102
sapāṇa
 - off his hand:
 88
sāra
 - pith: 59, 61, 64
śārava
 - 'lids': 73
śārikā
 - 'darts': 73
sāriva
 - indian
 sarsaparilla: 86
śārīvā
 - indian
 sarsaparilla: 94
sarpis
 - ghee: 84
sarpiṣ
 - ghee: 57
sarpita
 - ophidian: 83
 - serpented: 83
sārṣapa
 - *sārṣapa*: 64

sārṣapa
 - *sārṣapa*: 64
sarṣapaka
 - 'pepper
 snakes': 73
sarvātmikā
 - *sarvātmikā*:
 102
sarvātmikā
 - *sarvātmikā*: 102
śastrakṣata
 - cutting with a
 blade: 84
śātakumbhī
 - gold: 94
śatāvarī
 - wild
 asparagus: 91
sauvīraka
 - stibnite: 85
 scrambleberry
 - *tālīśa*: 85
 - *tālīśapatra*: 86
 seeing smoke
 - *dhūmadarśin*:
 84
seka
 - irrigation: 84
 semen
 - *bīja*: 101
 separate
 - *muktvā*: 92
 sepsis
 - *pāka*: 56
 serpented
 - *sarpita*: 83
 shine
 - *prabha*: 91

shooting pain
 - *śūla*: 93
 shoots
 - *pallava*: 92
 shower
 - *parīṣeka*: 54
siddhārthaka
 - white mustard:
 94
siddhi
 - cure: 69
 side-effects
 - *upadrava*: 56,
 71
 signs
 - *cihna*: 102
śigru
 - horseradish
 tree: 90
 sind salt
 - *saindhava*: 84,
 86
 sindh salt
 - *saindhava*: 89
sirāvedha
 - blood-letting:
 84
 siris
 - *śirīṣa*: 85, 95
śirīṣa
 - siris: 85, 95
śīta
 - elixir-salve: 85
sitā
 - white sugar:
 95
 skin disease
 - *koṭha*: 67

sleep	- <i>nalada</i> : 90	- <i>añjana</i> : 89
- <i>svāpa</i> : 63	spiral	- <i>sauvīraka</i> : 85
śleṣmalā	- <i>āvarta</i> : 91	stings
- phlegmatic:	spirits	- <i>śūla</i> : 73
102	- <i>madirā</i> : 86	stirred with goat's
śleṣman	- <i>madira</i> : 89	milk
- saliva: 52	spleen	- <i>ajākṣīrārdita</i> : 95
slow-acting poison	- <i>plīhan</i> : 87	stomach
antidote	spots	- <i>āmāśaya</i> : 67f
- <i>dūṣṭviṣāri</i> : 53	- <i>kaṇṭaka</i> : 55	striped snake
slow-acting poison	- <i>sphoṭa</i> : 55f	- <i>rājimat</i> : 69
- <i>dūṣṭ-viṣa</i> : 67	sprung	strong mallow
- <i>dūṣṭviṣa</i> : 71	- <i>plutā</i> : 102	- <i>atibalā</i> : 88
sniffing	<i>sraja</i>	stupor
- <i>ucchiṅgana</i> : 92	- garlands: 50	- <i>mūrcchā</i> : 52
snuff	<i>sraṃsanī</i>	<i>styāna</i>
- <i>nasya</i> : 55	- causing a fall:	- solid: 92
snuff	102	successive shocks
- <i>nasya</i> : 50	<i>srāva</i>	- <i>vega</i> : 81
solid	- discharge: 54,	<i>sūcī</i>
- <i>styāna</i> : 92	56	- needle: 92
soma creeper	<i>srotas</i>	<i>sūcīvaktrā</i>
- <i>somalatā</i> : 52	- kohl: 88	- with a
<i>somalatā</i>	<i>srotoja</i>	needle-like
- soma creeper:	- kohl: 86, 95	opening: 102
52	stalk	<i>sugandhi</i>
śonita	- <i>vr̥nta</i> : 85	- sandal: 87
- blood: 87	stationary	śūka
śonita-pitta,	- <i>sthāvara</i> : 59	- bristles: 72
rakta-pitta	steeped	<i>sūkarākṣitā</i>
- blood-bile: 87	- <i>pragāḍha</i> : 88	- pigs' eye: 94
śonitena	stewed juice	<i>sūkṣma</i>
- with blood: 93	- <i>niḥkvātha</i> : 69	- rarified: 66
soot	<i>sthāvara</i>	śūla
- <i>gr̥hadhūma</i> : 78	- stationary: 59	- pain: 68
<i>sphoṭa</i>	<i>sthirā</i>	- shooting pain:
- spots: 55f	- rigid: 93	93
spikenard	stibnite	- stings: 73

sun	- scrambleberry: 85	- prepared with
- <i>hari</i> : 92	<i>tālīśapatra</i>	turpeth: 84
supernatant layer	- scrambleberry: 86	treatable
- <i>agra</i> : 89	<i>tāmra</i>	- <i>yāpya</i> : 71
<i>svāpa</i>	- copper: 94	treatment
- numbness: 56	<i>tāmracūḍa</i>	- <i>bheṣaja</i> : 102
- sleep: 63	- cock: 88	- <i>kriyā</i> : 90
<i>svarasa</i>	<i>tarpaṇa</i>	tree turmeric
- expressed	- eyewash: 56,	- <i>dārvi</i> : 85
juice: 85	84, 89f	<i>triphalā</i>
- extracted juice:	- irrigation: 101	- the three
55	<i>tatra</i>	fruits: 89
<i>śvāsa</i>	- in those cases:	- three fruits:
- wheezing: 63	87	84, 86
<i>svayaṃgupta</i>	the blood of birds	<i>trivṛt</i>
- velvet bean: 85	and animals	- turpeth: 87f
<i>syanda</i>	- <i>rasa</i> : 85	turmeric
- watery eye: 91	the fragrant one in	- <i>haridrā</i> : 90
symptom	oil	turmeric
- <i>liṅga</i> : 55	- <i>tailasugandhi</i> :	- <i>rajana</i> : 86
symptoms	87	turpeth
- <i>liṅga</i> : 67	the three fruits	- <i>trivṛt</i> : 87f
<i>tailasugandhi</i>	- <i>triphalā</i> : 89	<i>tuttha</i>
- the fragrant	the three spices	- blue vitriol: 89
one in oil: 87	- <i>vyoṣa</i> : 86	<i>ucchiṅgana</i>
<i>tailvaka</i>	three fruits	- sniffing: 92
- prepared with	- <i>triphalā</i> : 84, 86	<i>uccīṭiṅga</i>
tilvaka: 84	<i>timira</i>	- crabs: 73
taken hot	- blindness: 91	<i>udāvartā</i>
- <i>puṭāhvaya</i> : 89	- partial	- udāvartā: 102
takes the form of	blindness: 87	udāvartā
pervading the	torn	- <i>udāvartā</i> : 102
whole body	- <i>darita</i> : 83	<i>udveṣṭana</i>
-	<i>toṭaka</i>	- writhing: 63
<i>akhiladehavyāptirūpam</i> :	- 'angry beetles':	unsteadiness of the
66	73	humours
<i>tālīśa</i>	<i>traivṛta</i>	

- *doṣapariplava*:
 93
 untreatable
 - *asādhya*: 91
upadeha
 - rheum: 56
upadrava
 - side-effects:
 56, 71
upahita
 - combined: 87
upasarga
 - affliction: 56
 used
 - *niṣevita*: 87
uśīra
 - cuscus grass:
 89f
utpala
 - blue lotus: 85
utpīḍita
 - injured: 91
utsādana
 - dry rub: 54
 - dry rubs: 50
vaiḍūrya
 - beryl: 95
vakrabhrūnetra
 - bent brow and
 eye: 93
vaktra
 - ends: 94
vāminī
 - vomiting: 102
vānara
 - monkey: 73
vanaspati

- non-flowering
 tree: 90
vandhyā
 - infertile: 102
 vapour
 - *bāṣpa*: 51f, 55
varaki
 - wasps: 73
varcaḥkīṭa
 - dung beetles:
 73
vartti
 - wicks: 95
vasā
 - fat: 88
vāta
 - wind: 101f
vātalā
 - windy: 102
vāvikṛtā
 - or not
 distorted: 53
vega
 - successive
 shocks: 81
 velvet bean
 - *svayaṃgupta*:
 85
 velvet leaf
 - *pāthā*: 90
vidagdha
 - inflamed: 84
vidaṅga
 - embelia: 90
viḍbheda
 - loose stool: 64,
 75
vidruma

- coral: 95
vikāsin
 - expansive: 66
vilocana
 - misshapen
 eyeball: 93
vipakva
 - matured: 85
viśada
 - limpid: 66
viśleṣa
 - disjunction: 67
viśvambhara
 - 'earth
 scorpions': 73
voḍhāra
 - bearers: 50
 vomiting
 - *vāminī*: 102
vṛnta
 - stalk: 85
vṛṣabha
 - bull: 51
vyadha
 - piercing: 92
vyavāyin
 - pervasive: 66
vyoṣa
 - the three
 spices: 86
 wasps
 - *kaṇabha*: 73
 - *varaki*: 73
 water-born
 - *salilotthita*: 90
 watery eye
 - *syanda*: 91

- परिशिष्टादिभिः संवलिता = *the Suśrutasaṃhitā of Suśruta with Various Readings, Notes and Appendix etc.* (Mumbāi: Nirṇayasāgarākhyamudraṇālaye), [ark:/13960/t8kd4jh7n](https://nirayam.org/ark:/13960/t8kd4jh7n).
- Acharya, Diwakar (2012), "Description of Microfilm A 45/5," NGMCP, [URL](https://ngmcp.org/), accessed 27/02/2023.
- Adriaensen, Rob, Barkhuis, Roelf, and Ruijters, Jean-Louis (1984), "An English Translation of Suśrutasaṃhitā, Nidānasthāna 1, 1–39, Together with Gayadāsa's Nyāyacandrikā," in Gerrit Jan Meulenbeld (ed.), *Proceedings of the International Workshop on Priorities in the Study of Indian Medicine* (Groningen: Forsten), 277–310.
- Āgāṣe, Ve. Śā. Rā. Rā. Kāśīnātha Śāstrī, and Āpaṭe, Hari Nārāyaṇa (1904) (eds.), वाचस्पतिमिश्रविरचितटीकासंवलितव्यासभाष्यसमेतानि पातञ्जल-योगसूत्राणि तथा भोजदेवविरचितराजमार्तण्डाभिधवृत्तिसमेतानि पातञ्जलयोगसूत्राणि (Ānandāśramasaṃskṛtagranthāvaliḥ, 47; Puṇyākhyā-pattana: Ānandāśramamudraṇālaya), [ark:/13960/t40s27g36](https://nirayam.org/ark:/13960/t40s27g36).
- Agrawal, V. S. (1963), *India As Known to Pāṇini: A Study of the Cultural Material in the Aṣṭādhyāyī* (2nd edn., Varanasi: Prthvi Prakashan); First published in 1953.
- Angermeier, Vitus (2020), *Regenzeiten, Feuchtgebiete, Körpersäfte. Das Wasser in der klassischen indischen Medizin* (Wien: Österreichische Akademie der Wissenschaften).
- (2021), "Agni and Soma Revisited: A Primordial Āyurvedic Concept?," in Toke Lindegaard Knudsen, Jacob Schmidt-Madsen, and Sara Speyer (eds.), *Body and Cosmos* (Leiden: Brill), chap. 3, 15–32. DOI: [10.1163/9789004438224_004](https://doi.org/10.1163/9789004438224_004).
- Azeez Pasha, M. (1971), "English Translation of Madan-ul-Shifa, Tibbe Sikandar Shahi (Sikandar Shah's Mine of Medicine)," *Bulletin of the Department of History of Medicine (Osmania University, Hyderabad)*, 2/4: 227–2324; continued in BDHM 3(1) 29–38; BIHM 1(3/4) 127–134; & BIHM 2(1), 17–22.
- Baber, Zaheer (1996), *The Science of Empire: Scientific Knowledge, Civilization, and Colonial Rule in India* (Albany: State University of New York Press).

- Bakker, Hans T. (2019), "Some Methodological Considerations with Respect to the Critical Edition of Puranic Literature," in *Holy Ground: Where Art and Text Meet* (Leiden: Brill), 175–84. DOI: [10 . 1163 / 9789004412071_010](https://doi.org/10.1163/9789004412071_010).
- Barceloux, Donald G. (2008), *Medical Toxicology of Natural Substances. Foods, Fungi, Medicinal Herbs, Plants, and Venomous Animals* (Hoboken, NJ, etc.: John Wiley & Sons), ISBN: 047172761X.
- Bausi, Alessandro, et al. (2015), *Comparative Oriental Manuscript Studies. An Introduction* (Hamburg: Tredition). DOI: [10.5281/ZENODO.46784](https://doi.org/10.5281/ZENODO.46784).
- Bedekar, V. M. (1967), "The Legend of the Churning of the Ocean in the Epics and the Purāṇas: A Comparative Study," *Purāṇa*, 9/1: 7–61, [ark: / 13960/t57d2r97r](https://doi.org/10.13960/t57d2r97r).
- Bendall, Cecil (1883), *Catalogue of the Buddhist Sanskrit, Manuscripts in The, University Library, Cambridge: With Introductory Notices and Illustrations of the Palaeography and Chronology of Nepal and Bengal* (Cambridge: University Press), [ark: / 13960/t03x8vz7b](https://doi.org/10.13960/t03x8vz7b).
- Bhaṭṭācārya, Candrakānta (1910–17) (ed.), सुश्रुतसंहिता प्रथमखण्डम् सूत्रस्थानात्मकम् हाराणचन्द्रचक्रवर्तिकविराजविरचितसुश्रुतार्थसन्दीपनभाष्य-समेतम्... चन्द्रकान्त भट्टाचार्य-प्रमुखैः संशोधितम् = [The *Suśrutasaṃhitā* with the Commentary *Suśrutārthasandīpanabhāṣya* by Hārāṇacandra Cakravartī] (Kalikātā: Satya Press); Edition "t" in [HIML](https://www.sanskrit-portal.org/HIML/IB): IB, 312.
- Bhattarai, Bidur (2020), *Dividing Texts. Conventions of Visual Text-Organisation in Nepalese and North Indian Manuscripts* (Studies in Manuscript Cultures; Berlin/Boston: de Gruyter), 388.
- Birch, Jason, Wujastyk, Dominik, Klebanov, Andrey, Parameswaran, Madhu K., et al. (2021), "Further Insight into the Role of Dhanvantari, the Physician to the Gods, in the *Suśrutasaṃhitā*," *Academia Letters*. DOI: [10.20935/AL2992](https://doi.org/10.20935/AL2992).
- Birch, Jason, Wujastyk, Dominik, Klebanov, Andrey, Rimal, Madhusudan, et al. (2021), "Dalhaṇa and the Early 'Nepalese' Version of the *Suśrutasaṃhitā*." DOI: [10.20935/a13733](https://doi.org/10.20935/a13733).
- Böhtlingk, Otto (1879), *Sanskrit-wörterbuch in kürzerer fassung* (St. Petersburg: Kaiserlichen Akademie der Wissenschaften), [URL](https://www.sanskrit-portal.org/HIML/IB), accessed 18/05/2023.

- Böhtlingk, Otto, and Roth, Rudolph (1855–75), *Sanskrit-Wörterbuch* (St. Petersburg: Kaiserlichen Akademie der Wissenschaften), [URL](#), accessed 18/05/2023.
- Bollée, Willem (2010), "Remarks on the Cultural History of the Ear in India," in Nalini Balbir (ed.), *Svasti: Essays in Honour of Professor Hampa Nagarajaiah for His 75th Birthday* (Bangalore: K. S. Mudappa Smaraka Trust), 141–67, [URL](#), accessed 23/01/2022.
- Breton, P. (1826), "On the Native Mode of Couching," *Transactions of the Medical and Physical Society of Calcutta*, 2: 341–82, [ark : / 13960 / t3dz8nn5t](#), [URL](#), accessed 02/06/2021.
- Bronkhorst, Johannes (2016), *How the Brahmins Won: From Alexander to the Guptas* (Leiden: Brill). doi: [10.1163/9789004315518](#).
- (2021), "Patañjali's Āryāvarta = Śuṅga realm?," *Academia Letters*. doi: [10.20935/a1291](#); Article 291.
- Bronner, Yigal (2021) (ed.), "The Pandit Project" (30 Sept.), [URL](#).
- Brooks, Lisa Allette (2018), "Epistemology and Embodiment: Diagnosis and the Senses in Classical Ayurvedic Medicine," *Asian Review of World Histories*, 6: 98–135. doi: [10.1163/22879811-12340027](#).
- (2020a), "A Surgeon's Hand: Reflections on Surgical Tactility in Early Ayurveda," *Asian Medicine*, 15/1: 30–62. doi: [10.1163/15734218-12341460](#).
- (2020b), "Whose Life is Water, Whose Food is Blood: Fluid Bodies in Āyurvedic Leech Therapy," in Natalie Köhle and Shigehisa Kuriyama (eds.), *Fluid Matter(s): Flow and Transformation in the History of the Body* (Asian Studies Monograph Series, 14; Canberra: ANU Press). doi: [10.22459/fm.2020](#).
- (2021a), "The Vascularity of Ayurvedic Leech Therapy: Sensory Translations and Emergent Agencies in Interspecies Medicine," *Medical Anthropology Quarterly*, 35/1: 82–101. doi: [10.1111/maq.12595](#).
- (2021b), "Translating Touch in Āyurveda: Medicine, Sense, and Subjectivity in Early south Asia and Contemporary Kerala," PhD thesis (University of California, Berkeley).
- Brooks, Lisa Allette (forthcoming), "Leech Logic," in An Editor (ed.), *A Book*.

- Burghart, Marjorie (2016), "The TEI Critical Apparatus Toolbox: Empowering Textual Scholars through Display, Control, and Comparison Features," *Journal of the Text Encoding Initiative*, 10/Issue 10. doi: [10.4000/jtei.1520](https://doi.org/10.4000/jtei.1520).
- (2017), "Textual Variants," in Marjorie Burghart, James Cummings, and Elena Pierazzo (eds.), *Digital Editing of Medieval Texts: A Textbook* (DEMM), [URL](#), accessed 04/07/2021.
- Burnell, Arthur Coke (1880), *A Classified Index to the Sanskrit Mss. in the Palace at Tanjore* (London: Trübner), [ark:/13960/t4xh86j61](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-63862-p0071-9); Bheḷasaṃhitā described on pp. 67 ff.
- Carpue, J. C. (1816), *An Account of Two Successful Operations for Restoring a Lost Nose from the Integuments of the Forehead...Including Descriptions of the Indian and Italian Methods* (London: Longman et al.), [ark:/13960/t2q57fn42](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-63862-p0071-9), accessed 20/03/2019.
- Chadha, Gita, and Thomas, Renny (2022) (eds.), *Mapping Scientific Method: Disciplinary Narrations* (Science and Technology Studies; Abingdon and New York: Routledge). doi: [10.4324/9781003298908](https://doi.org/10.4324/9781003298908).
- Cone, Margaret (2001), *A Dictionary of Pāli* (Oxford: The Pali Text Society), ISBN: 0 86013 394 x.
- Cordier, P. (1903), "Récentes découvertes de mss. médicaux sanscrits dans l'Inde (1898–1902)," *Muséon, Nouvelle Série*, 4: 321–52, [ark:/13960/t26b2j457](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-63862-p0071-9), accessed 02/01/2020; Reprinted in Roşu 1989: 539–70.
- Coult, Ro. (1731), "An Account of the Diseases of Bengall," in *Indian Science and Technology in the Eighteenth Century* (Impex India), 141 f., 276.
- Crawford, D. G. (1930), *Roll of the Indian Medical Service, 1615–1930* (London, Calcutta, Simla: Thacker).
- Das, Rahul Peter (2003), *The Origin of the Life of a Human Being. Conception and the Female According to Ancient Indian Medical and Sexological Literature* (Indian Medical Tradition; Delhi: Motilal Banarsidas), ISBN: 81-208-1998-5.
- Dave, K. N. (1985), *Birds in Sanskrit Literature* (Delhi: Motilal Banarsidass), ISBN: 0-89581-676-8, [ark:/13960/t2c94cv80](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-63862-p0071-9).

- Deshpande, Madhav (1988), "Pāṇini and the Northwestern Dialect: Some Suggestions on Sūtra 3.3.10," in Mohammad Ali Jazayery and Werner Winter (eds.), *Languages and Cultures: Studies in Honor of Edgar C. Polomé*, xxxvi (Trends in linguistics. Studies and monographs; Berlin, New York: Mouton de Gruyter), 111–23.
- Deshpande, Madhav M. (2010), "Pañca Gauḍa and Pañca Drāviḍa: Contested Borders of a Traditional Classification," in Klaus Karttunen (ed.), *Anantaṃ Śāstram. Indological and Linguistic Studies in Honour of Bertil Tikkani* (Studia Orientalia, 108; Helsinki: Finnish Oriental Society), 29–58, ISBN: 9789519380742.
- Deshpande, Vijaya (1999), "Indian Influences on Early Chinese Ophthalmology: Glaucoma As a Case Study," *Bulletin of the School of Oriental and African Studies*, 62: 306–22. DOI: [10.1017/S0041977X00016724](https://doi.org/10.1017/S0041977X00016724).
- (2000), "Ophthalmic Surgery: A Chapter in the History of Sino-indian Medical Contacts," *Bulletin of the School of Oriental and African Studies*, 63/3: 370–88, ISSN: 0041-977X. DOI: [10.1017/s0041977x00008454](https://doi.org/10.1017/s0041977x00008454).
- Deshpande, Vijaya Jayant (2019), "An Investigation into Ancient Greco-Indian Medical Exchanges: Sostratus vs Suśruta," *Indian Journal of History of Science*, 54/2: 144–61. DOI: [10.16943/ijhs/2019/v54i2/49659](https://doi.org/10.16943/ijhs/2019/v54i2/49659).
- Dimitrov, Dragomir, and Tamot, Kashinath (2007), "Kaiser Shamsher, His Library and His Manuscript Collection," *Kaiser Shamsher, His Library and His Manuscript Collection*, 3 (Jan.): 26–36, [URL](#).
- Doniger, Wendy (2015), "Introduction: Sympathy for the Devi: Snakes and Snake Goddesses in Hinduism," in Kaiser Haq, *The Triumph of the Snake Goddess* (Cambridge, MA: Harvard University Press), 1–28. DOI: [10.4159/9780674089136-intro](https://doi.org/10.4159/9780674089136-intro).
- Eaton, Richard M. (1993), *The Rise of Islam and the Bengal Frontier, 1204–1760* (Berkeley: University of California Press), [ark:/13030/ft067n99v9/](https://doi.org/10.13030/ft067n99v9/).
- Edgerton, Franklin (1939), "The Epic Triṣṭubh and Its Hypermetric Varieties," *Journal of the American Oriental Society*, 59/2: 159–74. DOI: [10.2307/594060](https://doi.org/10.2307/594060).
- Edgerton, Franklin (1953), *Buddhist Hybrid Sanskrit Grammar and Dictionary. Vol. 2: Dictionary* (William Dwight Whitney Linguistic Series; New Haven: Yale University Press).

- Eggeling, Julius, et al. (1887–1935), *Catalogue of the Sanskrit Manuscripts in the Library of the India Office* (London: Secretary of State for India), [ark:/13960/s2kbbk5zcrg9](https://nbn-resolving.org/urn:nbn:uk:2019-06-01-13960-s2kbbk5zcrg9).
- Elliot, Robert Henry (1918), *The Indian Operation of Couching for Cataract: Incorporating the Hunterian Lectures Delivered before the Royal College of Surgeons of England on February 19 and 21, 1917* (London: H. K. Lewis).
- Emeneau, M. B. (1969), “Sanskrit Syntactic Particles – “kila, khalu, nūnam”,” *Indo-Iranian Journal*, 11/4: 241–68.
- Ewart, Joseph (1878), *The Poisonous Snakes of India: For the Use of the Officials and Others Residing in the Indian Empire* (London: J & A Churchill), ISBN: 81-7002-011-5, [ark:/13960/t9z07w72g](https://nbn-resolving.org/urn:nbn:uk:2019-06-01-13960-t9z07w72g); Reprinted Delhi: Himalayan Books, 1985.
- Falk, Harry (1991), “Silver, Lead and Zinc in Early Indian Literature,” *South Asian Studies*, 7/1: 111–7. DOI: [10.1080/02666030.1991.9628430](https://doi.org/10.1080/02666030.1991.9628430).
- Fan, Ka Wai (2005), “Couching for Cataract and Sino-indian Medical Exchange From the Sixth to the Twelfth Century AD,” *Clinical and Experimental Ophthalmology*: 188–90. DOI: [10.1111/j.1442-9071.2005.00978.x](https://doi.org/10.1111/j.1442-9071.2005.00978.x); Unaware of V. Deshpande 1999; 2000.
- Fayrer, Joseph (1874), *The Thanatophidia of India, Being a Description of the Venomous Snakes of the Indian Peninsula with and Account of the Influence of their Poison on Life and a Series of Experiments* (2nd edn., London: Churchill), [ark:/13960/t9h49dg5c](https://nbn-resolving.org/urn:nbn:uk:2019-06-01-13960-t9h49dg5c); First edition 1872.
- Fitzgerald, James L. (2009), “A Preliminary Study of the 681 Triṣṭubh Passages of the Mahābhārata,” in Robert P. Goldman and Muneo Tokunaga (eds.), *Epic Undertakings* (Papers of the 12th World Sanskrit Conference; Delhi: Motilal Banarsidass Publisher), 95–117.
- Flood, Gavin D. (2022) (ed.), *Wiley Blackwell Companion to Hinduism* (2nd edn., Hoboken, NJ: Wiley & Sons, Limited), ISBN: 9781119144861.
- Froese, R., and Pauly, D. (2022) (eds.), “Fishbase: The Global Encyclopedia about Fish,” [URL](https://www.fishbase.org/).
- Gaṇapatiśāstrī, T. (1920–25), *Āryamañjuśrīmūlakalpāḥ* (Trivandrum Sanskrit Series, 70; Anantaśayane: Rājākīyamudraṇayantrālaye), [ark:/13960/t4pk5sj0j](https://nbn-resolving.org/urn:nbn:uk:2019-06-01-13960-t4pk5sj0j).

- Giesche, Alena, et al. (2023), "Recurring Summer and Winter Droughts from 4.2–3.97 Thousand Years Ago in North India," *Nature: Communications Earth & Environment*, 4/1: 1–10. DOI: [10.1038/s43247-023-00763-z](https://doi.org/10.1038/s43247-023-00763-z).
- Gode, P. K., and Karve, C. G. (1957–59) (eds.), *Revised and Enlarged Edition of Prin. V. S. Apte's the Practical Sanskrit-English Dictionary* (Poona: Prasad Prakashan), [ark:/13960/t3gx47212](https://nbn-resolving.org/urn:nbn:de:bsz:13960-t3gx47212), accessed 20/10/2017.
- Gombrich, Richard (1979), "'He Cooks Softly': Adverbs in Sanskrit Grammar," *Bulletin of the School of Oriental and African Studies*, 42/2: 244–56. DOI: [10.1017/s0041977x0014580x](https://doi.org/10.1017/s0041977x0014580x).
- Gupta, Parmanand (1973), *Geography In Ancient Indian Inscriptions (Up to 650 A.D.)* (Delhi: D. K. Publishing House), [ark:/13960/t3907cf2d](https://nbn-resolving.org/urn:nbn:de:bsz:13960-t3907cf2d).
- (1989), *Geography from Ancient Indian Coins & Seals* (New Delhi: Concept Publishing Company), ISBN: 9788170222484.
- Gupta, Sri Madhusudana (1835–36) (ed.), *Āyur-veda-prakāśa [also Called Suśruta-saṃhitā] by Suśruta. the Suśruta, or System of Medicine, Taught by Dhanwantari, and Composed by His Disciple Suśruta*, 2 vols. (Calcutta: Education Press and Baptist Mission Press), [ark:/13960/t6841qw6x](https://nbn-resolving.org/urn:nbn:de:bsz:13960-t6841qw6x).
- Haas, E. (1876), "Über die Ursprünge der Indischen Medizin, mit besonderem Bezug auf Suśruta," *Zeitschrift der Deutschen Morgenländischen Gesellschaft*, 30/4: 617–70, [URL](https://nbn-resolving.org/urn:nbn:de:bsz:13960-t3907cf2d).
- Harimoto, Kengo (2010), "[Preliminary Edition of the Nepalese MSS of the Suśrutasamhitā, adhyāyas 1.1–3, 6.4]" (prepublished).
- (2011), "In Search of the Oldest Nepalese Manuscript," *Rivista degli Studi Orientali*, 84/1–4: 85–106, ISSN: 0392-4866, [URL](https://nbn-resolving.org/urn:nbn:de:bsz:13960-t3907cf2d), accessed 08/09/2019.
- (2013), "Description of microfilm C 80/7," NGMCP, [URL](https://nbn-resolving.org/urn:nbn:de:bsz:13960-t3907cf2d), accessed 27/02/2023.
- (2014), "Nepalese Manuscripts of the Suśrutasamhitā," *Journal of Indian and Buddhist Studies (Indogaku Bukkyogaku Kenkyu)*, 62/3: 23–29 (1087–1093). DOI: [10.4259/ibk.62.3_1087](https://doi.org/10.4259/ibk.62.3_1087), [URL](https://nbn-resolving.org/urn:nbn:de:bsz:13960-t3907cf2d), accessed 08/09/2019.
- Hayashi, Takao (2017), "The Units of Time in Ancient and Medieval India," *History of Science in South Asia*, 5/1: 1–116. DOI: [10.18732/h2ht0h](https://doi.org/10.18732/h2ht0h).

- Hemarāja Śarman (1938) (ed.), काश्यपसंहिता (वृद्धजीवकीयं तन्त्रं वा) महर्षिणा मारीच-
कश्यपेनोपदिष्टा ... हेमराजशर्मणा लिखितेन विस्तृतेन उपोद्धातेन सहिता ... सत्यपाल भिषगा
कृतया विद्योतिनी हिन्दीव्याख्यया ... समुल्लसिता (1st edn., Mumba: Nirṇayasāgara
Press), [ark:/13960/t3mw5gb9p](https://nirayasaagara.org/ark:/13960/t3mw5gb9p).
- Hendley, T. Holbein (1895), *A Medico-topographical Account of Jeypore, Based
on the Experience of Twenty Years' Service As a Residency Surgeon and Thir-
teen As Superintendent of Dispensaries at Jeypore, Rajputana* (Calcutta: Cal-
cutta Central Press Company).
- Hessler, Franciscus (1844–55), *Suśrutas Ayurvēdas: id est Medicinae Systema
a Venerabili D'hanvantare Demonstratum a Susruta Discipulo Compositum;
Nunc Primum Ex Sanskrita in Latinum Sermonem Vertit, Introductionem,
Annotationes Et Rerum Indice Franciscus Hessler* (Erlangen: Ferdinandum
Enke), [ark:/13960/t17m45r97](https://nirayasaagara.org/ark:/13960/t17m45r97).
- Hoernle, A. F. Rudolf (1893–1912) (ed.), *The Bower Manuscript: Facsimile
Leaves, Nagari Transcript, Romanised Transliteration and English Translation
with Notes* (New Imperial Series, 22; Calcutta: Government of India and
under the patronage of the Bengali Government, Archaeological Survey
of India), [ark:/13960/t05z1bg4q](https://nirayasaagara.org/ark:/13960/t05z1bg4q).
- (1897), सुश्रुतसंहिता = *The Suśruta-Saṃhitā or the Hindū System of Medicine
According to Suśruta Translated from the Original Sanskrit* (Bibliotheca In-
dica, 911; Calcutta: Asiatic Society), [ark:/13960/t8pd1kw9r](https://nirayasaagara.org/ark:/13960/t8pd1kw9r), accessed
03/01/2018; No more published; Hoernle does not state which edition
he is translating, but it includes the "Dhanvantari phrase".
- (1906a), "Studies in Ancient Indian Medicine I: The Commentaries on
Suśruta," *Journal of the Royal Asiatic Society of Great Britain and Ireland*:
283–302, [URL](https://nirayasaagara.org/ark:/13960/t8pd1kw9r), accessed 26/06/2019.
- (1906b), "Studies in Ancient Indian Medicine II: On Some Obscure
Anatomical Terms," *Journal of the Royal Asiatic Society of Great Britain
and Ireland*, 4: 915–41, [URL](https://nirayasaagara.org/ark:/13960/t8pd1kw9r), accessed 25/06/2019.
- (1907a), "Studies in Ancient Indian Medicine II: On Some Obscure
Anatomical Terms (Continued from the the Journal, 1906, p. 941)," *Journal of the Royal Asiatic Society of Great Britain and Ireland*: 1–18, [URL](https://nirayasaagara.org/ark:/13960/t8pd1kw9r),
accessed 25/06/2019.

- Hoernle, A. F. Rudolf (1907*b*), *Studies in the Medicine of Ancient India: Osteology or the Bones of the Human Body* (Oxford: Clarendon Press), [ark:/13960/t1pg9cq8b](#).
- Hofer, Theresia (2007), "Swami Laxmi Ram's Ayurvedic Pharmacy in Jaipur, India," *Wellcome History*, 34: 2–3, [URL](#), accessed 16/03/2022.
- Holwell, J. Z. (1767), *An Account of the Manner of Inoculating for the Small Pox in the East Indies With...Observations on The...Mode of Treating That Disease in Those Parts* (London: T. Becket & P. A. de Hondt), [ark:/13960/t3ws9h63c](#).
- Jack, David Morton (1884), "A Thesis on Cataract in India: Its Pathology and Treatment," Wellcome Library, London, MS 3007, [URL](#), accessed 02/06/2021.
- Jamison, Stephanie W., and Brereton, Joel P. (2014), *The Rigveda* (South Asia Research; New York: Oxford University Press), ISBN: 9780199370184; With commentary at <http://rigvedacommentary.alc.ucla.edu/>.
- Kangle, R. P. (1969), *The Kauṭīliya Arthaśāstra* (2nd edn., Delhi: Motilal Banarsidass), ISBN: 81-208-0042-7, [ark:/13960/t3gz6qh1s](#), accessed 23/09/2021.
- Karttunen, Klaus (2015), *Yonas and Yavanas in Indian Literature* (Studia Orientalia, 116; Helsinki: Finnish Oriental Society), 454, ISBN: 978-951-9380-88-9, [URL](#); Published electronically in 2016 as a back issue of *Studia Orientalia*.
- Keith, Arthur Berriedale (1908), review of A. F. Rudolf Hoernle (1907), "Studies in Ancient Indian Medicine II: On Some Obscure Anatomical Terms (Continued from the the Journal, 1906, p. 941)," *Journal of the Royal Asiatic Society of Great Britain and Ireland*: 1–18, [URL](#), accessed 25/06/2019, in *Zeitschrift Der Deutschen Morgenländischen Gesellschaft*, 1/62: 134–9, [URL](#), accessed 17/04/2021.
- Kieffer-Pülz, Petra (1996), "The Meaning of Māḷa(ka)/māla(ka) in Pāli," in N. Balbir, G.-J. Pinault, and J. Fezas (eds.), *Langue, style et structure dans le monde indien, Centenaire de Louis Renou. Actes du Colloque international* (Paris, 25–27 janvier 1996 (Paris), 285–325, [URL](#), accessed 17/05/2023.

- Klebanov, Andrey (2010), "The *Nepalese Version of the Suśrutasaṃhitā and Its Interrelation with Buddhism and the Buddhists," MA thesis (Hamburg: Hamburg University, Sept.), [URL](#), accessed 08/09/2019.
- Klebanov, Andrey (2012), "Description of microfilm B 29/19," NGMCP, [URL](#), accessed 27/02/2023.
- (2021a), "On the Textual History of the Suśrutasaṃhitā (1): A Study of Three Nepalese Manuscripts," *eJIM: Electronic Journal of Indian Medicine*, 12/1: 1–64. doi: [10.21827/ejim.12.1.37385](#).
- (2021b), "On the Textual History of the Suśrutasaṃhitā, (2): An Anonymous Commentary and its Identified Citations," in Toke Lindegaard Knudsen, Jacob Schmidt-Madsen, and Sara Speyer (eds.), *Body and Cosmos: Studies in Early Indian Medical and Astral Sciences in Honor of Kenneth G. Zysk* (Leiden, Boston: Brill), 110–39. doi: [10.1163/9789004438224_008](#).
- Kuist, James M. (1982), *The Nichols File of The Gentleman's Magazine* (Madison: University of Wisconsin Press), ISBN: 0-299-08480-9, [ark:/13960/t53g2ct2z](#).
- Kulikov, Leonid (2006), "The Sanskrit -yet- Optative: A Formation Not Yet Recorded in Sanskrit Grammars," *Wiener Zeitschrift für die Kunde Südasiens*, 50: 27–68. doi: [10.1553/wzksls27](#), [URL](#).
- Lariviere, Richard W. (2003), *The Nāradaśmṛti. Critically Edited with an Introduction, annotated Translation, and Appendices* (2nd edn., Delhi: Motilal Banarsidass), ISBN: 8120818040; First edition: Philadelphia, 1989.
- Law, Bimala Churn (1984), *Historical Geography of Ancient India* (New Delhi: Orient Books Reprint), [ark:/13960/t3d01t737](#); Reprint of 1954 Paris edition.
- Leffler, Christopher T., et al. (2020), "The History of Cataract Surgery: From Couching to Phacoemulsification," *Annals of Translational Medicine*, 8/22: 1551–97, ISSN: 2305-5847. doi: [10.21037/atm-2019-rs-04](#), [URL](#), accessed 02/11/2020.
- Li, Charles (2017), "Critical Diplomatic Editing: Applying Text-critical Principles As Algorithms," in Peter Boot et al. (eds.), *Advances in Digital Scholarly Editing. Papers Presented at the Dixit Conferences in the Hague, Cologne, and Antwerp* (Leiden: Sidestone Press), 305–10, ISBN: 978-90-8890-485-1, [URL](#), accessed 10/11/2020.

- (2017–), “Saktumiva,” [URL](#), accessed 21/01/2023.
- Li, Charles (2018), “Limits of the Real: A Hypertext Critical Edition of Bhartṛhari’s *Dravyasamuddeśa*, with the Commentary of Helārāja,” en, PhD thesis (Cambridge: University of Cambridge). doi: [10.17863/CAM.31454](#).
- (2022a), “Helayo: Reconstructing Sanskrit Texts from Manuscript Witnesses,” *Journal of Open Source Software*, 7/71: 4022. doi: [10.21105/joss.04022](#).
- (2022b), “Reconstructing a Sanskrit Text” (19 Nov.), [URL](#), accessed 20/01/2023.
- Lienhard, Siegfried (1978), “On the Meaning and Use of the Word *Indragopa*,” *Indologica taurinensia*, 6: 177–88, [URL](#), accessed 06/02/2021; The *indragopa* is a ‘red velvet mite’.
- Longmate, Barak (1794), “A Curious Chirurgical Operation,” *The Gentleman’s Magazine and Historical Chronicle*, 64.4 (Oct.): 883, 891, 892; I am grateful to the late John Symons of the Wellcome Library who identified the author ‘B. L.’ as the journalist Barak Longmate. See also Kuist [1982](#): 87.
- Maas, Philipp André (2013), “A Concise Historiography of Classical Yoga Philosophy: *leslie*,” in Eli Franco (ed.), *Historiography and Periodization of Indian Philosophy* (Vienna: Sammlung de Nobili), 53–90, [URL](#), accessed 27/05/2016.
- Mairs, Rachel (2013), “Greek Settler Communities in Central and South Asia, 323 BCE to 10 CE,” in Ato Quayson (ed.), *A Companion To Diaspora And Transnationalism* (Oxford: John Wiley and Sons Ltd), 443–54, ISBN: 9781405188265.
- (2014), *The Hellenistic Far East: Archæology, Language, and Identity in Greek Central Asia: Archæology, Language, and Identity in Greek Central Asia* (Berkeley: University of California Press), 250, ISBN: 9780520292468. doi: [10.1525/9780520959545](#).
- Majno, Guido (1975), *The Healing Hand. Man and Wound in the Ancient World* (Cambridge, MA: Harvard University Press), [ark:/13960/t4hm7xf2c](#).

- Malamoud, Charles (1996), "Paths of the Knife: Carving up the Victim in Vedic Sacrifice," in *Cooking the World: Ritual and Thought in Ancient India*. Translated from the French by David White (Delhi, Bombay, etc.: Oxford University Press), 169–80.
- Mānasa-taraṅgiṇī (2019), "Kaiṭabha, Poison and Death: Meanderings through Tradition," mAnasa-taraMgiNI Blog (1 Sept.), [URL](#), accessed 31/01/2023.
- Manucci, Niccolò (1907–08), *Storia Do Mogor or, Mogul India, 1653–1708 by Niccolao Manucci, Venetian; Translated with Introduction and Notes, by William Irvine* (The Indian Texts Series; London: J. Murray), [URL](#), accessed 04/10/2021.
- Masai, François (1950), "Principes et conventions de l'édition diplomatique," *Scriptorium*, 4: 177–93. doi: [10.3406/scrip.1950.2294](#).
- McHugh, James (2021), *An Unholy Brew: Alcohol in Indian History and Religions* (New York: Oxford University Press), 416 pp., ISBN: 9780199375936.
- Mehta, S. R., and Sashindran, V. K. (2002), "Clinical Features And Management Of Snake Bite," *Medical Journal Armed Forces India*, 58/3 (July): 247–9. doi: [10.1016/s0377-1237\(02\)80140-x](#).
- Meulenbeld, Gerrit Jan (1974b), *The Mādhavanidāna and Its Chief Commentary: Chapters 1–10. Introduction, Translation, and Notes* (Leiden: Brill), ISBN: 978-90-04-03892-9, [ark:/13960/t25b8q97g](#).
- (1984), "The Surveying of Sanskrit Medical Literature," in id. (ed.), *Proceedings of the International Workshop on Priorities in the Study of Indian Medicine* (Groningen: Forsten), 37–56.
- (1989), "The Search for Clues to the Chronology of Sanskrit Medical Texts As Illustrated by the History of Bhaṅgā (cannabis Sativa Linn.)," *Studien zur Indologie und Iranistik*, 15: 59–70.
- (1990), "Conformities and Divergences of Basic Ayurvedic Concepts in Veterinary Texts," *Journal of the European Ayurvedic Society*, 1: 1–6, [URL](#), accessed 16/02/2022.
- (1991), "The Constraints of Theory in the Evolution of Nosological Classifications: A Study on the Position of Blood in Indian Medicine (Āyurveda)," in *Medical Literature from India, Sri Lanka, and Tibet*, 91–106, ISBN: 90-04-09522-5, [URL](#).

- (1992), “The Characteristics of a Doṣa,” *Journal of the European Āyurvedic Society*, 2/1: 1–5, [ark:/13960/t8hf69z8j](https://nbn-resolving.org/urn:nbn:de:bsz:13960-t8hf69z8j).
- Meulenbeld, Gerrit Jan (2008), *The Mādhavanidāna with “Madhukośa,” the Commentary by Vijayarakṣita and Śrīkaṇṭhadatta (Ch. 1-10). Introduction, Translation, and Notes* (Delhi: Motilal Banarsidass).
- (2011), “The Relationships between Doṣas and Dūṣyas: A Study on the Meaning(s) of the Root Murch-/murch,” *eJournal of Indian Medicine*, 4/2: 35–135, [URL](https://nbn-resolving.org/urn:nbn:de:bsz:13960-t8hf69z8j), accessed 13/10/2017.
- Miles, M. (1999), “Personal Communication,” Mar.; Letter of 4 March.
- Moureau, Sébastien. (2015), “The Apparatus Criticus,” in Alessandro Bausi et al. (eds.), *Comparative Oriental Manuscript Studies: An Introduction* (Hamburg: Tredition), 348–52, ISBN: 978-3-7323-1768-4, [URL](https://nbn-resolving.org/urn:nbn:de:bsz:13960-t8hf69z8j), accessed 04/07/2021.
- Mukhopādhyāya, Girindranāth (1913), *The Surgical Instruments of the Hindus, with a Comparative Study of the Surgical Instruments of the Greek, Roman, Arab, and the Modern European (sic) Surgeons* (Calcutta: Calcutta University), [ark:13960/t1zd2pq29](https://nbn-resolving.org/urn:nbn:de:bsz:13960-t1zd2pq29), accessed 29/01/2018; Vol.2: [ark:/13960/t9r25qd8m](https://nbn-resolving.org/urn:nbn:de:bsz:13960-t9r25qd8m). Reprinted as a single volume, New Delhi, 1987.
- Narayana, Ala, and Thrigulla, Saketh Ram (2011), “Tangible Evidences of Surgical Practice in Ancient India,” *Journal of Indian Medical Heritage*, 16: 1–18, [URL](https://nbn-resolving.org/urn:nbn:de:bsz:13960-t8hf69z8j), accessed 02/06/2021.
- NGMCP (2014), “Nepal-german Manuscript Cataloguing Project. Online Title List and Descriptive Catalogue,” Universität Hamburg and Deutsche Forschungsgemeinschaft, [URL](https://nbn-resolving.org/urn:nbn:de:bsz:13960-t8hf69z8j).
- Oberlies, Thomas (2003), *A Grammar of Epic Sanskrit* (Indian Philology and South Asian Studies, 5; Berlin: De Gruyter), ISBN: 9783110144482. DOI: [10.1515/9783110899344](https://nbn-resolving.org/urn:nbn:de:bsz:13960-t8hf69z8j).
- Olivelle, Patrick (2001), *Food for Thought. Dietary Rules and Social Organization in Ancient India* (Gonda Lectures, 9; Amsterdam: Royal Netherlands Academy of Arts and Sciences), [URL](https://nbn-resolving.org/urn:nbn:de:bsz:13960-t8hf69z8j), accessed 28/06/2023.
- (2005), *Manu’s Code of Law: A Critical Edition and Translation of the Manava-dharmasastra*, With the editorial assistance of Suman Olivelle (South Asia research; New York: Oxford University Press), ISBN: 0195171462.

- Olivelle, Patrick (2013), *King, Governance, and Law in Ancient India: Kauṭilya's Arthaśāstra. a New Annotated Translation* (New York: Oxford University Press), ISBN: 9780199891825. DOI: [10.1093/acprof:osobl/9780199891825.003.0001](https://doi.org/10.1093/acprof:osobl/9780199891825.003.0001).
- Osbaldeston, Tess Anne, and Wood, R. P. A. (2000), *Dioscorides. De Materia Medica. Being an Herbal with Many Other Medicinal Materials Written in Greek in the First Century of the Common Era. a New Indexed Version in Modern English* [Introductory Notes by R. P. Wood] (Johannesburg: IBIDIS Press), ISBN: 0-620-23435-0, [URL](#).
- Pandey, Anshuman (2012), "Proposal to Encode the Newar Script in ISO/IEC 10646," [URL](#).
- Pāṇḍeya, Rāmateja (1963) (ed.), श्रीकृष्णद्वैपायनव्यासप्रणीतं गरुडपुराणम् (Vidyabhawan Prachyavidya Granthamala, 3; reprint, Caukhambā Vidyābhavana, Paṇḍita-Pustakālaya: Kāśī), [ark:/13960/t6pz7tg7j](https://nbn-resolving.org/urn:nbn:in:cnr-13960-t6pz7tg7j).
- Pass, Gregory (2003), *Descriptive Cataloging of Ancient, Medieval, Renaissance, and Early Modern Manuscripts* (Chicago: American Library Association), ISBN: 0-8389-8218-2, [URL](#).
- PBS (2020), "Modern Day Blood-letting in North Africa," PBS (11 Dec.), [URL](#); Filmed in Farchana, Chad, amongst Sudanese refugees from Darfur, for the series *Our Human Planet*.
- Pillay, V. V. (2013), *Modern Medical Toxicology* (New Delhi: Jaypee Brothers Pvt. Ltd), ISBN: 9789350259658.
- Pillay, Vijay V., and Sasidharan, Anu (2019), "Oleander and Datura Poisoning: An Update," *Indian Journal of Critical Care Medicine*, 23/Supplement 4: 5250–5. DOI: [10.5005/jp-journals-10071-23302](https://doi.org/10.5005/jp-journals-10071-23302).
- Preisendanz, Karin (2007), "The Initiation of the Medical Student in Early Classical Āyurveda: Caraka's Treatment in Context," in Birgit Kellner et al. (eds.), *Pramāṇakīrtiḥ. Papers Dedicated to Ernst Steinkellner on the Occasion of His 70th Birthday. Part 2*, ii, 2 vols. (Wiener Studien zur Tibetologie und Buddhismuskunde, 70.2; Wien: Arbeitskreis für Tibetische Und Buddhistische Studien Universität Wien), 629–68, ISBN: 9783902501097, [URL](#).

- Price, Kenneth M. (2013), "Electronic Scholarly Editions," in Ray Siemens and Susan Schreibman (eds.), *A Companion to Digital Literary Studies* (Chichester, UK: John Wiley & Sons, Ltd), 434–50. DOI: [10 . 1002 / 9781405177504 .ch24](https://doi.org/10.1002/9781405177504.ch24), URL, accessed 04/07/2021.
- Rādhākāntā Deva, Rājā (1876), *शब्दकल्पद्रुमः = Shabda Kalpadrumah, Or, the Tree Bearing All the Words That May Be Wished For* (Calcutta: Baradākānta Mitra & Co. at the New Bengal Press), [ark:/13960/t9x10x61b](https://nbn-resolving.org/urn:nbn:in:shabdkalpadrumah).
- Rai, Saurav Kumar (2019), "Invoking 'Hindu' Ayurveda: Communalisation of the Late Colonial Ayurvedic Discourse," *The Indian Economic & Social History Review*, 56/4: 411–26. DOI: [10 . 1177 / 0019464619873820](https://doi.org/10.1177/0019464619873820); Online first.
- Rama Rao, B., et al. (2005), *Sanskrit Medical Manuscripts in India* (New Delhi: Central Council for Research in Ayurveda & Siddha), [ark:/13960/t88h7763b](https://nbn-resolving.org/urn:nbn:in:sanskritmedicalmanuscripts).
- Rama Sastri and Krishnamurthi Sastri, S. R. (1952) (eds.), *पातञ्जलयोग-सूत्रभाष्यविवरणम्। (शङ्करभगवत्पादप्रणीतम्) = Pātñjala[sic]-yogasūtra-bhāṣya Vivaraṇam of Śaṅkara-Bhagavatpāda. Critically Edited with Introduction* (Madras Government Oriental Series, 94; Madras: Government Oriental Manuscripts Library), [ark:/13960/t7jq3m14w](https://nbn-resolving.org/urn:nbn:in:patanjalyogasutra), accessed 20/10/2017.
- Rây, Priyadarajan, Gupta, Hirendra Nath, and Roy, Mira (1980), *Suśruta Saṁhita (a Scientific Synopsis)* (New Delhi: Indian National Science Academy), [ark:/13960/t64511t6v](https://nbn-resolving.org/urn:nbn:in:susrutasamhita), accessed 13/09/2019.
- Raychaudhuri, Hemachandra (1953), *Political History of Ancient India* (Calcutta: University of Calcutta), [ark:/13960/s25hz0hz29p](https://nbn-resolving.org/urn:nbn:in:raychaudhuri).
- Renou, Louis (1940), "Sur certaines anomalies de l'optatif Sanskrit," *Bulletin de la Société de Linguistique de Paris*, 41: 5–17, [ark:/12148/bpt6k121049](https://nbn-resolving.org/urn:nbn:fr:bsl).
- Rhys Davids, Thomas William, and Stede, William (1921–25), *The Pali Text Society's Pali-English Dictionary* (London: The Pali Text Society), [ark:/13960/t4nk3nc12](https://nbn-resolving.org/urn:nbn:in:palienglishdictionary).
- Rimal, Madhusudana, and Wujastyk, Dominik (2022), "MS Kathmandu NAK 1/1146," Pandit Project (18 May), URL.
- Roelli, Philipp (2020) (ed.), *Handbook of Stemmatalogy* (Berlin: De Gruyter). DOI: [10.1515/9783110684384](https://doi.org/10.1515/9783110684384).

- Roelli, Philipp, and Macé, Caroline (2015), “Parvum Lexicon Stemmatologicum. A Brief Lexicon of Stemmatology.” DOI: [10.5167/uzh-121539](https://doi.org/10.5167/uzh-121539).
- Roşu, Arion (1989), *Un demi-siècle de recherches āyurvédiques. Gustave Liétard et Palmyr Cordier: Travaux sur l'histoire de la médecine indienne* (Paris: Institut de Civilisation Indienne).
- Saha, Mridula (2015), *The History of Indian Medicine Based on the Vedic Literature Satapatha Brahmana* (Kolkata: The Asiatic Society), ISBN: 978-9381574294.
- Sarukkai, Sundar (2016), “Translation As Method: Implications for History of Science,” in Bernard Lightman, Gordon McOuat, and Larry Stewart (eds.), *The Circulation of Knowledge Between Britain, India and China* (Leiden: BRILL), 309–29. DOI: [10.1163/9789004251410_014](https://doi.org/10.1163/9789004251410_014).
- Sastri, Hrishikesh, and Gui, Siva Chandra (1895–1917), *A Descriptive Catalogue of Sanskrit Manuscripts in the Library of Calcutta Sanskrit College* (Calcutta: Baptist Mission Press).
- Sastri, P. P. S. (1933), *A Descriptive Catalogue of the Sanskrit Manuscripts in the Tanjore Maharaja Serfoji's Sarasvati Mahal Library Tanjore: Natya, Sangita, Kamasutra, Vaidya & Jyotisa, nos. 10650–11737* (Srirangam: Sri Vani Vilas Press), [ark:/13960/t3nw8bc12](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-63862-p0111-9).
- Śāstrī, Vardhamāna Pārśvanātha (1940) (ed.), *उग्रादित्याचार्यकृत कल्याणकारक (राष्ट्रभाषानुवादसहित) = The Kalyāṇa-kāraṇam of Ugrādityacharya, Edited with Introduction, Translation, Notes, Indexes and Dictionary* (Sakhārāma Nemacanda Gramthamālā, 129; Solāpura: Seṭha Goviṃdajī Rāvajī Doṣī), [ark:/13960/t2q617g4d](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-63862-p0111-9).
- Schwartzberg, Joseph E., Bajpai, Shiva G., et al. (1978) (eds.), *A Historical Atlas of South Asia* (Chicago: University of Chicago Press), [URL](https://www.uchicago.edu/press/).
- Scott, H. (1817), “Some Remarks on the Arts of India, with Miscellaneous Observations on Various Subjects,” *Journal of Science and the Arts*, 2: 67–72, ill. after 133, [ark:/13960/t9870jt4g](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-63862-p0111-9); Breton 1826: 358–363 cites Scott's description of cataract couching.
- Semeka-Pankratov, Elena (1979), “A Semiotic Approach to the Polysemy of the Symbol *nāga* in Indian Mythology,” in Irene Portis Winner and Jean Umiker-Sebeok (eds.), *Semiotics of Culture* (Approaches to Semiotics, 53; The Hague, Paris, NY: Mouton), 237–90. DOI:

- 10 . 1515 / 9783110823134 - 009; The contents of this volume were published simultaneously in *Semiotica* (1/3) 1979.
- Sen, Sailendra Nath (1988), *Ancient Indian History and Civilization* (Delhi: New Age International), [ark:/13960/t8gf8pz34](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-39660-p0034-8).
- Sena, Gaṅgāprasād, et al. (1886–93) (eds.), *सुश्रुतसंहिता...दल्लनाचार्य-कृत-निबन्ध-संग्रह, चक्रपाणिदत्त-कृत-भानुमती-टीका...वङ्गानुवाद...इंग्रेजि प्रतिशब्द* (Calcutta: Maṇirāma Press); Edition "g" in [HIML](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-39660-p0034-8): IB, 311.
- Sharma, Har Dutt (1939), *Descriptive Catalogue of the Government Collections of Manuscripts Deposited at the Bhandarkar Oriental Research Institute, Vol. XVI, Part I, Vaidyaka* (Descriptive Catalogue of Manuscripts in the Government Manuscripts Library, XVI.I; Pune: Bhandarkar Oriental Research Institute), [ark:/13960/t0ms6rc70](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-39660-p0034-8), accessed 23/10/2019.
- Sharma, Priya Vrat (1972), *Indian Medicine in the Classical Age* (Varanasi: Chowkhamba Sanskrit Series Office).
- (1975), *Āyurved Kā Vaijñānik Itihās* (Jayakṛṣṇadāsa Āyurveda Granthamālā; Vārāṇasī: Caukhambā Orientalia).
- (1982), *Ḍalhaṇa and his Comments on Drugs* (Delhi: Munshiram Manoharlal).
- (1999–2001), *Suśruta-Saṃhitā, with English Translation of Text and Ḍalhaṇa's Commentary Alongwith (sic) Critical Notes*, 3 vols. (Haridas Ayurveda Series, 9; Varanasi: Chaukhambha Visvabharati).
- Shastri, R. Shama (1920) (ed.), *बोधायनगृह्यसूत्रम् The Bodhāyana Grihyasutra* (Mysore: University of Mysore), [ark:/13960/t2t492622](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-39660-p0034-8).
- Shiffman, Melvin A. (2013), "History of Otoplasty: Review of Literature," in id. (ed.), *Advanced Cosmetic Otoplasty: Art, Science, and New Clinical Techniques* (Berlin, Heidelberg: Springer), chap. 5, 43–64. DOI: [10.1007/978-3-642-35431-1_5](https://doi.org/10.1007/978-3-642-35431-1_5).
- Siddiqi, Muhammad Zubayr (1959), *Studies in Arabic and Persian Medical Literature*, [ark:/13960/s25bxqt84xm](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-39660-p0034-8).
- Sieler, Roman (2015), *Lethal Spots, Vital Secrets. Medicine and Martial Arts in South India* (New York: Oxford University Press), ISBN: 9780190243869.
- Singhal, G. D., et al. (1972–82), *Diagnostic [and Other] Considerations in Ancient Indian Surgery* (Varanasi: Singhal Publications); A translation of the *Suśrutasaṃhitā* in 10v.

- Sircar, Dinesh Chandra (1971), *Studies in the Geography of Ancient and Medieval India* (2nd edn., Delhi: Motilal Banarsidass), [ark : / 13960 / t72w2zd8w](https://n2t.net/ark:/13960/t72w2zd8w).
- (1987), “6. Rākshaskhālī (Sundarban) Plate; Śaka 1118,” *Epigraphia Indica* (1953–54), 30: 42–3, [ark : / 13960 / t80m25q3w](https://n2t.net/ark:/13960/t80m25q3w).
- Śiromaṇi, Bharatacandra (1873) (ed.), *चतुर्वर्गचिन्तामणि-दानखण्डम्* (Calcutta: Asiatic Society of Bengal), [ark : / 13960 / t1rf9jd94](https://n2t.net/ark:/13960/t1rf9jd94).
- Sleeman, W. H. (1893), *Rambles and Recollections of an Indian Official* (London: Constable), [ark : / 13960 / t22c4bx7w](https://n2t.net/ark:/13960/t22c4bx7w); v. 2 at [http : // n2t . net / ark : / 13960 / t2s52bq7w](http://n2t.net/ark:/13960/t2s52bq7w).
- Slouber, Michael (2016), *Early Tantric Medicine: Snakebite, Mantras, and Healing in the Garuda Tantras* (New York: OUP), 392 pp., ISBN: 9780190461812.
- Smith, Brian K. (1994), *Classifying the Universe: The Ancient Indian Varṇa System and the Origins of Caste* (New York, Oxford: Oxford University Press), ISBN: 0-19-508498-5.
- Spencer, Walter George (1935–38), *Celsus: De Medicina. with an English Translation by W. G. Spencer*, 3 vols. (Loeb Classical Library, 292, 304, 336; Cambridge, MA; London: Harvard University Press; William Heinemann), [URL](https://n2t.net/URL), accessed 02/06/2021.
- Speziale, Fabrizio (2019), “Rasāyana and Rasaśāstra in the Persian Medical Culture of South Asia,” *History of Science in South Asia*, 7: 1–41. DOI: [10 . 18732 / hssa . v7i0 . 40](https://doi.org/10.18732/hssa.v7i0.40).
- Spink, M. S., and Lewis, G. L. (1973) (eds.), *Albucasis on Surgery and Instruments: A Definitive Edition of the Arabic Text with English Translation and Commentary* (London: Wellcome Institute of the History of Medicine), [ark : / 13960 / t95823n1k](https://n2t.net/ark:/13960/t95823n1k).
- Srikantha Murthy, K. R. (2000–02), *Illustrated Suśruta Saṃhitā: Text, English Translation, Notes, Appendices and Index* (Jaikrishnadas Ayurveda Series, 102; 1st edn., Varanasi: Chaukhambha Orientalia).
- Steingass, F. (1930), *A Comprehensive Persian-English Dictionary Including the Arabic Words and Phrases to Be Met with in Persian Literature* (London: Kegan Paul, Trench, Trubner), [ark : / 13960 / s25bwz0337d](https://n2t.net/ark:/13960/s25bwz0337d); Reprint, Delhi: Oriental Reprint, 1973.

- Storey, C. A. (1971), *Persian Literature, a Bio-bibliographical Survey*. Vol. II.2: Medicine (London: Royal Asiatic Society of Great Britain and Ireland), [ark:/13960/t9v18bf68](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-63868-p0111-9).
- Strauss, Bettina (1934), “Das Giftbuch des Šānāq: eine Literaturgeschichtliche Untersuchung,” *Quellen und Studien zur Geschichte der Naturwissenschaften und der Medizin*, 4/2: [89]–[152] followed by Arabic text, [ark:/13960/s2hb5j66s95](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-63868-p0111-9).
- Suvedī, K. S., and Tivārī, N. (2000) (eds.), सौश्रुतनिघण्टुः ग्रन्थादौ विस्तृतेन ग्रन्थवैशिष्ट्यप्रकाशकेनोपोद्धातेन अवसाने च द्रव्याणामनेकभाषानामावली-पर्यायसङ्ग्रहाभ्यां समलङ्कृतः सुश्रुतसंहितायां प्रयुक्तानामौषधद्रव्याणां पर्याय-गुणकर्मवर्णात्मकोऽपूर्वग्रन्थः (Belajhunḍī, Dān: Mahendrasaṃskṛtavīśvavidyalayaḥ).
- Talwar, P. K., and Kacker, R. K. (1984), *Commercial Sea Fishes of India* (Calcutt: Zoological Survey of India), [ark:/13960/t5s841v5m](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-63868-p0111-9).
- Tavernier, Jean-Baptiste (1684), *Collections of Travels through Turkey (sic), into Persia, and the East-Indies* (London: M. Pitt), [ark:/13960/t9g45vn74](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-63868-p0111-9).
- TEI Consortium (2010), *TEI P5: Guidelines for Electronic Text Encoding and Interchange*, ed. C. M. Sperberg-McQueen et al. (Oxford, Providence, Charlottesville, Nancy: TEI Consortium), [URL](https://www.tei.org/).
- Thorburn, S. S. (1876), *Bannu; or Our Afghan Frontier* (London: Trübner & Co.), [ark:/13960/t39z96g7m](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-63868-p0111-9); Reprinted Lahore: Niaz Ahmad, 1978.
- UNESCO (2013), “International Memory of the World Register Susruta Samhita (Nepal),” UNESCO, [URL](https://www.unesco.org/), accessed 11/09/2019.
- Unicode Consortium (1991), “The Unicode Standard 15.0, Newa Range,” [url: https://unicode.org/charts/PDF/U11400.pdf](https://unicode.org/charts/PDF/U11400.pdf).
- Unschuld, Paul Ulrich (1984), *Medicine in China: A History of Ideas* (Berkeley: University of California Press), ISBN: 0520050231.
- Valiathan, M. S. (2007), *The Legacy of Suśruta* (Hyderabad, Chennai, etc.: Orient Longman).
- Velankar, H. D (1925–30), *Descriptive Catalogue of the Sanskr̥ta and Prākṛta Manuscripts in the Library of the Bombay Branch of the Royal Asiatic Society* (Bombay: Royal Asiatic Society, Bombay), [ark:/13960/t53g00h0n](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-63868-p0111-9); Biswas #0115.

- Wall, Frank (1913), *The Poisonous Terrestrial Snakes of Our British Indian Dominions (Including Ceylon) and How to Recognize Them; With Symptoms of Snake Poisoning and Treatment* (3rd edn., Bombay: Bombay Natural History Society), [ark:/13960/t1zc8g94b](https://nbn-resolving.org/urn:nbn:de:bsz:551-1913-zc8g94b).
- (1921), *Ophidia Taprobanica or the Snakes of Ceylon* (Colombo: Cottle, Government Printer), [ark:/13960/t39z9q93n](https://nbn-resolving.org/urn:nbn:de:bsz:551-1921-z9q93n).
- Whitney, William Dwight (1885), *The Roots, Verb-forms, and Primary Derivatives of the Sanskrit Language. A Supplement to his Sanskrit Grammar* (Leipzig: Breitkopf and Härtel), [ark:/13960/t3qv3p906](https://nbn-resolving.org/urn:nbn:de:bsz:551-1885-z3qv3p906).
- Wilson, H. H. (1823), "On the Medical and Surgical Sciences of the Hindus," *The Oriental Magazine and Calcutta Review*, 1: 207–12, 349–56, [URL](https://nbn-resolving.org/urn:nbn:de:bsz:551-1823-z3qv3p906).
- Woodcock, Martin W. (1980), *Collins Handguide to the Birds of the Indian Sub-continent, Including India, Pakistan, Bangladesh, Sri Lanka and Nepal* (Collins), ISBN: 0-00-219712-X; Reprinted 1990.
- Wujastyk, Dagmar (2012), *Well-mannered Medicine: Medical Ethics and Etiquette in Classical Ayurveda* (New York: Oxford University Press). DOI: [10.1093/acprof:oso/9780199856268.001.0001](https://doi.org/10.1093/acprof:oso/9780199856268.001.0001).
- (2013a), "Perfect Medicine. Mercury in Sanskrit Medical Literature," *Asian Medicine: Tradition & Modernity*, 8/1 (Sept.): 15–40, ISSN: 1573-4218. DOI: [10.1163/15734218-12341278](https://doi.org/10.1163/15734218-12341278).
- (2019), "Iron Tonics: Tracing the Development from Classical to Iatrochemical Formulations in Ayurveda," *HIMALAYA: The Journal of the Association for Nepal and Himalayan Studies*, 39/1. DOI: [10.5281/zenodo.7746874](https://doi.org/10.5281/zenodo.7746874).
- Wujastyk, Dominik (1993), "Indian Medicine," in W. F. Bynum and Roy Porter (eds.), *Companion Encyclopedia of the History of Medicine*, i (London: Routledge), chap. 33, 755–78, ISBN: 0-415-04771-4, [URL](https://nbn-resolving.org/urn:nbn:de:bsz:551-1993-zc8g94b).
- (2002), "Cannabis in Traditional Indian Herbal Medicine," in Ana Salema (ed.), *Āyurveda at the Crossroads of Care and Cure. Proceedings of the Indo-European Seminar on Ayurveda held at Arrábida, Portugal, in November 2001* (Lisbon: Centro de História de Além-Mar, Universidade Nova de Lisboa), 45–73, ISBN: 972-98672-5-9, [URL](https://nbn-resolving.org/urn:nbn:de:bsz:551-1993-zc8g94b), accessed 27/05/2019.

- (2003a), “Black Plum Island,” in *2nd International Conference on Indian Studies. Proceedings* (Kraków: Jagiellonian University, Institute of Oriental Philology and Księgarnia Akademicka), 637–49.
- Wujastyk, Dominik (2003b), *The Roots of Ayurveda: Selections from Sanskrit Medical Writings* (Penguin Classics; 3rd edn., London, New York, etc.: Penguin Group), ISBN: 0-140-44824-1.
- (2004), “Agni and Soma: A Universal Classification,” *Studia Asiatica: International Journal for Asian Studies*, IV–V, ed. Eugen Ciurtin: 347–70. DOI: [10.5281/zenodo.7742068](https://doi.org/10.5281/zenodo.7742068).
- (2013b), “New Manuscript Evidence for the Textual and Cultural History of Early Classical Indian Medicine,” in *Medical Texts and Manuscripts in Indian Cultural History*, ed. Dominik Wujastyk, Anthony Cerulli, and Karin Preisendanz (New Delhi: Manohar), 141–57, [URL](#).
- Wujastyk, Dominik, et al. (2020), “Suśrutasaṃhitā,” PanditProject (6 Oct.), [URL](#), accessed 14/09/2022.
- Wujastyk, Dominik (2021a), “A New Translation of Carakasamhitā, Vimānasthāna, Chapter 1, Based on the Vienna Critical Edition,” in Toke Lindegaard Knudsen, Jacob Schmidt-Madsen, and Sara Speyer (eds.), *Body and Cosmos. Studies in Early Indian Medical and Astral Sciences in Honor of Kenneth G. Zysk* (Leiden, Boston: Brill), chap. 6, 77–109. DOI: [10.1163/9789004438224_007](https://doi.org/10.1163/9789004438224_007).
- (2021b), “MS London BL H. T. Colebrooke 908,” [URL](#), accessed 03/07/2021.
- (2021–), “Sushrutaproject: Version Control for Suśruta Text TEI Transcriptions: Suśruta Project Manuscript Transcriptions,” University of Alberta, [URL](#), accessed 21/01/2023; archived at DOI: [10.5281/zenodo.6471655](https://doi.org/10.5281/zenodo.6471655).
- Wujastyk, Dominik, et al. (2021–), “The Suśruta Project: The Textual and Cultural History of Medicine in South Asia Based on Newly-Discovered Manuscript Evidence,” ed. Dominik Wujastyk, Jason Birch, Andrey Klebanov, et al., [URL](#), accessed 21/01/2023.
- Wujastyk, Dominik (2022), “The Science of Medicine,” in Gavin D. Flood (ed.), *The Wiley Blackwell Companion to Hinduism* (2nd edn., Hoboken, NJ: Wiley and Sons, Ltd.), chap. 23, 399–413, ISBN: 9781119144861. DOI: [10.1002/9781119144892.ch23](https://doi.org/10.1002/9781119144892.ch23).

- Wujastyk, Dominik, Birch, Jason, Klebanov, Andrey, et al. (2021–) (eds.), “New Digital Edition of the Suśrutasaṃhitā: The Suśruta Project at Sak-tumiva,” University of Alberta, [URL](#).
- Wujastyk, Dominik, Birch, Jason, Klebanov, Andrey, et al. (2023), *On the Plastic Surgery of the Ears and Nose. The Nepalese Version of the Suśrutasaṃhitā* (Heidelberg: Heidelberg Asian Studies Publishing), ISBN: 978-3-948791-63-6. DOI: [10.11588/hasp.1203](#) (inpress).
- Wujastyk, Dominik, Pollock, Sheldon, et al. (2008–), “SARIT: Search and Retrieval of Indic Texts,” [URL](#), accessed 21/01/2023.
- Yagi, Toru (1994), “A Note on bhojya- and bhakṣya-,” in Yasuke Ikari (ed.), *A Study of the Nīlamata. Aspects of Hinduism in Ancient Kashmir* (Kyoto: Kyoto Institute for Research in Humanities, Kyoto University).
- Yano, Michio (1986), “A Comparative Study of *Sūtrasthānas*: Caraka, Suśruta, and Vāgbhaṭa,” in Teizo Ogawa (ed.), *History of Traditional Medicine: Proceedings of the 1st and 2nd International Symposia on the Comparative History of Medicine—East and West* (Osaka: Division of Medical History, the Taniguchi Foundation), 325–44.
- Zimmermann, Francis (1983), “Suśrutasaṃhitā,” review of G. D. Singhal et al. (1972–82), *Diagnostic [and Other] Considerations in Ancient Indian Surgery* (Varanasi: Singhal Publications); A translation of the *Suśrutasaṃhitā* in 10v. In *Bulletin of the History of Medicine*, 57/2: 291–3, ISSN: 00075140, eprint: [44441590](#), [URL](#).
- (1999), *The Jungle and the Aroma of Meats* (2nd edn., Delhi: Motilal Banarsidass), ISBN: 8120816188.
- Zysk, Kenneth G. (1984), “An Annotated Bibliography of Translations into Western Languages of Principle Sanskrit Medical Treatises,” *Clio Medica*, 19/3–4: 281–91.
- (1985), *Religious Healing in the Veda: With Translations and Annotations of Medical Hymns from the Rgveda and the Atharvaveda and Renderings from the Corresponding Ritual Texts* (Transactions of the American Philosophical Society; Philadelphia: American Philosophical Society), ISBN: 0871697572.
- (1986), “The Evolution of Anatomical Knowledge in Ancient India with Special Reference to Cross-cultural Influences,” *Journal of the American Oriental Society*, 106: 687–705. DOI: [10.2307/603532](#).

Zysk, Kenneth G. (2000), *Asceticism and Healing in Ancient India: Medicine in the Buddhist Monastery* (Indian Medical Tradition; 2nd edn., Delhi: Motilal Banarsidass); First published 1991. Reprint of 1998 edition.

Glossary

- ‘angry beetles’
 - *toṭaka*: 73
 ‘bellied’
 - *kuṣṣita*: 73
 ‘cook-fish’
 - *pākamatsya*: 73
 ‘darts’
 - *śārikā*: 73
 ‘earth scorpions’
 - *viśvambhara*: 73
 ‘flat insects’
 - *picciṭā*: 73
 ‘lids’
 - *śārava*: 73
 ‘liquors’
 - *medaka*: 73
 ‘orange-dwellers’
 - *kaṣāyavāsika*: 73
 ‘pepper snakes’
 - *sarṣapaka*: 73
 ‘poisonous snakes’
 - *pracalāka*: 73
 ‘pot insects’
 - *kaunḍinya*: 73
 ‘speckle-heads’
 - *citraśīrṣa*: 73
 ‘wing-scorpions’
 - *patravṛścika*: 73
 ‘wood-enemies’
 - *dārukāri*: 73

 abdominal lump
 - *gulma*: 101
abhayā
 - chebulic
 myrobalan: 86
abhrāmukta
 - free from clouds:
 93
abhyaṅga
 - massage oil: 50,
 56
 - oil massage: 54
Aconite
 - hālāhala: 65
adhimantha
 - irritation: 94
adhiṣṭhāna
 - base, foundation:
 72
 - carriers: 72
ādhmāna
 - distension: 63
adhodṛṣṭitva
 - downward vision:
 94
 affliction
 - *upasarga*: 56
agada
 - antidote: 68
agra
 - supernatant layer:
 89
agramukta
 - free from the
 point: 93
 aids
 - *aṅga*: 87
ajākṣīrārdita
 - stirred with goat’s
 milk: 95
ajeya
 - invincible: 57
 - “invincible”: 71
akhiladehavyāptirūpam
 - takes the form of
 pervading the whole
 body: 66
ālepa
 - liniment: 84
ālepana
 - liniments: 56
 alleviated
 - *yāpya*: 87
āmalaka
 - emblic: 85
āmāsaya
 - stomach: 67f
amra
 - mango: 85
amṛta
 - immortal: 57
ānāha
 - constipation: 64,
 67, 71
aṇḍīnī
 - with testicles: 102
aṅga
 - aids: 87
aṅgamarda
 - bruising of the
 limbs: 67
añjana
 - application of
 collyrium: 84, 89
 - eye make-up: 50,
 55
 - eye ointment: 56
 - eye salve: 68
 - stibnite: 89
annamada
 - intoxication from
 food: 67
 antidote
 - *agada*: 68
antra
 - entrails: 87
 - gut: 68
anulepana
 - massage
 ointment: 50, 54
 - ointment: 54
apāṅga
 - outer corner of
 the eye: 92
 apertures of the head
 - *kha*: 55
 application of collyrium
 - *añjana*: 84, 89
araga timira

- non-bloodshot
 blindness: 91
 arid-land animals
 - *jāṅgala*: 90
aṇṇavamala
 - cuttle fish: 86
arocaka
 - loss of appetite:
 67
aśās
 - prolapses: 101
ārtava
 - menstrual blood:
 101
asādhya
 - incurable: 84
 - untreatable: 31
aśoka
 - asoka tree: 85
 asoka tree
 - *aśoka*: 85
aṣṭhīlā
 - pebble: 52
atibālā
 - strong mallow: 88
āṭopa
 - flatulence: 53
atyānandā
 - extremely excited:
 102
avadāraṇa
 - fissuring: 56
avalekhana
 - combs: 50
āvarta
 - spiral: 91
avaśārdhita
 - fart: 72
 axelwood
 - *dhava*: 95
balā
 - country mallow:
 88
bali
 - morsel: 50

base, foundation
 - *adhiṣṭhāna*: 72
bāṣpa
 - vapour: 51f, 55
 be exhausted
 - *sāda*: 68
 bearers
 - *voḍhāra*: 50
 beauty berry
 - *priyaṅgu*: 89
 beautyberry
 - *priyaṅgu*: 85
 bellyache
 - *jaṭhara*: 71
 bent brow and eye
 - *vakrabhrūnetra*: 93
 beryl
 - *vaiḍūrya*: 95
bhadradāru
 - deodar: 95
bhaṅga
 - leaves: 92
bhavet
 - it may be: 91
bhāvita
 - cooked: 90
 - infused: 85
bheṣaja
 - treatment: 102
bhramaraka
 - drongo: 51
bhr̥ṅgarāja
 - racket-tailed
 drongo: 51
bīja
 - semen: 101
 bile
 - *pitta*: 87
 bilious / choleric
 - *pittalā*: 102
 black drongo
 - *dhūmyāṭa*: 51
 black part
 - *kṛṣṇa*: 92
 black pepper

 - *marica*: 85
 black soot
 - *maṣī*: 84
 blindness
 - *timira*: 91
 blood
 - *śonita*: 87
 blood-bile
 - *śonita-pitta*,
 rakta-pitta: 87
 blood-letting
 - *sirāvedha*: 84
 bloodshot blindness
 - *rāgin timira*: 89
 - *rāgiṇi timire*: 91
 blue dot cataract
 - *mlāyin*: 91
 blue lotus
 - *utpala*: 85
 blue vitriol
 - *tuttha*: 89
 bodily constituents
 - *dhātu*: 66
 body language
 - *īṅgita*: 50
 body tissue
 - *dhātu*: 67
 box myrtle
 - *kaṭphala*: 86
 bristles
 - *śūka*: 72
 bruising of the limbs
 - *aṅgamarda*: 67
 bubbling
 - *budbuda*: 94
budbuda
 - bubbling: 94
 bull
 - *vṛṣabha*: 51
cala
 - liquid: 92
 can be mitigated
 - *yāpya*: 91
caraṇī
 - *caraṇī*: 102

caranī
 - *caranī*: 102
 cardamom
 - *elā*: 86
 carnivore
 - *kravyabhuj*: 88
 carriers
 - *adhiṣṭhāna*: 72
 cassia cinnamon
 - *patra*: 94
 castor oil
 - *pañcāṅgulataila*: 87
cāsyāt
 - from his mouth:
 52
 cataract
 - *liṅganāśa*: 91
 caused by wind
 - *pavanodbhava*: 87
 causes
 - *hetu*: 102
 causing a fall
 - *sraṁsanī*: 102
 causing the destruction
 of actions such as
 moving
 -
gamanādikriyāvināśakarī:
 94
 chebulic myrobalan
 - *abhayā*: 86
 chest
 - *hṛd*: 68
chidra
 - opening: 92
 child bearing
 - *kaumārabhṛtya*: 97
 child-murderess
 - *putraghnī*: 102
 chital deer
 - *prṣata*: 51
 cholera
 - *pitta*: 102
 chyle
 - *rasa*: 67

cihna
 - signs: 102
 circuit of the pupil
 - *drṣṭimaṇḍala*: 92
citraśīrṣa
 - 'speckle-heads':
 73
 citron
 - *mātulūṅga*: 94
 clean
 - *pra*√ *sādh*: 56
 cock
 - *tāmracūḍa*: 88
 combined
 - *upahita*: 87
 combs
 - *avalekhana*: 50
 compendium of
 diseases
 - *rogasaṁgraha*: 100
 compounds
 - *yoga*: 84
 conch
 - *salilotthita*: 90
 cone snails
 - *śambūka*: 73
 constipation
 - *ānāha*: 64, 67, 71
 contamination dropsy
 - *duṣyodara*: 67
 cooked barley
 - *yavaudana*: 91
 cooked
 - *bhāvita*: 90
 copper
 - *tāmra*: 94
 coral
 - *vidruma*: 95
coṣa
 - driness: 94
 cottony jujube
 - *kākolī*: 95
 counteraction
 - *pratiṣedha*: 84
 country mallow

- *balā*: 88
 cow's flesh
 - *gomāṁsa*: 85
 cow's urine
 - *gomūtra*: 86
 cow-dung
 - *gośakṛt*: 85
 crabs
 - *uccīṭiṅga*: 73
 crow's foot
 - *kākapada*: 69
cuñcumālaka
 - little ring of spots:
 83
 curable
 - *sādhya*: 84
 curds
 - *dadhi*: 53, 57
 cure
 - *siddhi*: 69
 cured
 - *sādhya*: 71
 cuscus grass
 - *uśīra*: 89f
 cutting with a blade
 - *śastrakṣata*: 84
 cuttle fish
 - *aṇṇavamala*: 86
 cuttlefish bone
 - *phena*: 95
 - *samudraphena*: 86
dadhi
 - curds: 53, 57
daivakṛte
 - naturally-
 occurring: 92
dantamāṁsa
 - flesh of the tooth:
 53
dantaveṣṭa
 - enclosure of a
 tooth: 53
darita
 - torn: 83
 dark colour

- *dhyāma*: 65
dārukāri
 - 'wood-enemies':
 73
dārvi
 - tree turmeric: 85
datta
 - given: 51
 decoction
 - *kvātha*: 68
 decoctions
 - *kaṣāya*: 50, 93
 deer
 - *eṇa*: 88
 defects
 - *doṣa*: 101
 delirium
 - *moha*: 63
 demons
 - *graha*: 98
 demons
 - *graha*: 97
 deodar
 - *bhadradāru*: 95
 desert date
 - *iṅgudī*: 90
dhātrī
 - emblic: 86
dhātu
 - bodily
 constituents: 66
 - body tissue: 67
 - element: 59, 62, 64
dhava
 - axelwood: 95
dhūma
 - inhaled smoke: 50
dhūmadarśin
 - seeing smoke: 84
dhūmyāṭa
 - black drongo: 51
dhyāma
 - dark colour: 65
 - grimy: 50
 discharge

- *praseka*: 64
 - *srāva*: 54, 56
 diseases
 - *roga*: 101
 disjunction
 - *viśleṣa*: 67
 disorders of the female
 reproductive system
 - *yonivyāpat*: 101
 distension
 - *ādhmāna*: 63
doṣa
 - defects: 101
 - humour: 66, 91
 - humours: 101
doṣapariplava
 - unsteadiness of
 the humours: 93
 double
 - *yamalā*: 53
 downward vision
 - *adhodṛṣṭitva*: 94
drākṣā
 - grapes: 95
dravāñjana
 - liquid collyrium:
 89
 dried ginger
 - *nāgara*: 86
 driness
 - *coṣa*: 94
 drongo
 - *bhramaraka*: 51
drṣṭi
 - pupil: 84, 92f
drṣṭimaṇḍala
 - circuit of the
 pupil: 92
drṣṭivibhrama
 - faulty vision: 56
 dry rub
 - *utsādana*: 54
 dry rubs
 - *utsādana*: 50
 dry

- *rūkṣa*: 66
 dung beetles
 - *varcaḥkīṭa*: 73
dūrvā
 - panic grass: 94
dūṣī-viṣa
 - slow-acting
 poison: 67
dūṣīviṣa
 - slow-acting
 poison: 71
dūṣīviṣāri
 - enemy of
 slow-acting poison:
 71
 - slow-acting
 poison antidote: 53
duṣyodara
 - contamination
 dropsy: 67
 dwindling away
 - *kṣaya*: 67
elā
 - cardamom: 86
 element
 - *dhātu*: 59, 62, 64
 elephant/snake
 - *nāga*: 74
 elixir salve
 - *rasāñjana*: 85, 89f
 elixir-salve
 - *rasāñjana*: 85
 elixir-salve
 - *śīta*: 85
 embelia
 - *vidanṅa*: 90
 emblic
 - *āmalaka*: 85
 - *dhātrī*: 86
eṇa
 - deer: 88
 enclosed roasting
 - *puṭākhyā*: 88
 - *puṭapāka*: 90
 enclosure of a tooth

- *dantaveṣṭa*: 53
 ends
 - *vaktra*: 94
 enemy of slow-acting
 poison
 - *dūṣṭviṣāri*: 71
 entrails
 - *antra*: 87
 errhine
 - *nasya*: 88
 errhines
 - *nasya*: 56
 expansive
 - *vikāsin*: 66
 expressed juice
 - *svarasa*: 85
 extract
 - *niryāsa*: 56
 extract of rohu carp
 - *rauhita*: 85
 extracted juice
 - *svarasa*: 55
 extracts
 - *rasa*: 89
 extremely excited
 - *atyānandā*: 102
 eye make-up
 - *añjana*: 50, 55
 eye ointment
 - *añjana*: 56
 eye salve
 - *añjana*: 68
 eyewash
 - *tarpaṇa*: 56, 84, 89f
 fart
 - *avaśardhita*: 72
 fat
 - *vasā*: 88
 faulty medical
 treatment
 - *mithyopacāra*: 101
 faulty vision
 - *dṛṣṭivibhrama*: 56
 female reproductive
 organ

- *yonī*: 101f
 female reproductive
 system
 - *yonī*: 101
 filaments
 - *kiñjalka*: 85
 fissuring
 - *avadāraṇa*: 56
 flame of the forest
 - *palāśa*: 89
 flatulence
 - *āṭopa*: 53
 flesh
 - *māṃsa*: 54
 flesh of the tooth
 - *dantamāṃsa*: 53
 flooded
 - *pariplutā*: 102
 follicles
 - *kha*: 54
 free from clouds
 - *abhramukta*: 93
 free from the point
 - *agramukta*: 93
 from his mouth
 - *cāsyāt*: 52
gairika
 - ochre: 84f
gairikaḥ
 - red chalk: 94
gamanādikriyāvināśakarī
 - causing the
 destruction of
 actions such as
 moving: 94
 garlands
 - *sraja*: 50
 geckos
 - *grhagoḍikā*: 73
 general rule
 - *paribhāṣā*: 90
 gently
 - *mṛdu*: 94
 ghee
 - *sarpis*: 84

- *sarpis*: 57
 given
 - *datta*: 51
 glassy opacity
 - *kāca*: 89
godhā
 - monitor lizard: 87
 gold
 - *śātakumbhī*: 94
gomāṃsa
 - cow's flesh: 85
gomūtra
 - cow's urine: 86
gośakṛt
 - cow-dung: 85
 - juice of cow-dung:
 85
graha
 - demons: 98
 - demons: 97
granthi
 - knots: 65
 - lumps: 54, 64
 grapes
 - *drākṣā*: 95
 great aconite
 - *mahāvīṣa*: 65
 great fragrance
 - *mahāsugandha*: 56
 great poison
 - *mahāvīṣa*: 65
 green vitriol
 - *kāśīsa*: 90
grhadhūma
 - soot: 78
grhagoḍikā
 - geckos: 73
 grimy
 - *dhyāma*: 50
 gruel
 - *yavāgū*: 69
guḍikā
 - pill: 85
gulma

- abdominal lump:
101
guṇa
- qualities: 65
gut
- *antra*: 68
hālāhala
- *Aconite*: 65
hare foot uraria
- *pr̥thakparṇī*: 95
hareṇu
- *hareṇu*: 85f
hareṇu
- *hareṇu*: 85f
hareṇu
- *hareṇu*: 85
hareṇu
- *hareṇu*: 86
hari
- sun: 92
haridrā
- turmeric: 90
harṣa
- horripilation: 67
heart protected
- *hṛdayāvāraṇa*: 57
hetu
- causes: 102
himalayan cherry
- *padmaka*: 95
hoarseness
- *pāruṣya*: 64
holostemma
- *payasyā*: 94
honey collyrium
- *kṣaudrāñjana*: 86
honey
- *kṣaudra*: 85
- *madhu*: 85
- *madhus*: 51
horripilation
- *harṣa*: 67
horseradish tree
- *śigru*: 90
hṛd

- chest: 68
hṛdayāvāraṇa
- heart protected:
57
huge
- *mahatī*: 102
humour
- *doṣa*: 66, 91
humours
- *doṣa*: 101
if, then not
- *na ced*: 92
illness
- *ruj*: 86
immortal
- *amṛta*: 57
impotent
- *śaṇḍhī*: 102
in those cases
- *tatra*: 87
in yama's direction
- *yāmya*: 78
incurable
- *asādhyā*: 84
indian lotus
- *nalina*: 85
indian madder
- *mañjiṣṭhā*: 94
indian sarsaparilla
- *kālānusāriṇa*: 86
- *śārivā*: 94
- *sāriṇa*: 86
- *śārivā*: 94
indigo
- *nīlī*: 53
infertile
- *vandhyā*: 102
inflamed
- *vidagdha*: 84
infused
- *bhāvita*: 85
īṅgita
- body language: 50
īṅgudī
- desert date: 90

inhaled smoke
- *dhūma*: 50
injured
- *utpīḍita*: 91
inspissation
- *rasakriyā*: 90
intestines
- *pakvādhāna*: 68
- *pakvāśaya*: 53, 67
intoxication from food
- *annamada*: 67
invincible
- *ajeya*: 57
irrigated
- *pratipūraṇa*: 55
irrigation
- *seka*: 84
- *tarpaṇa*: 101
irritation
- *adhimantha*: 94
it may be
- *bhavet*: 91
jambu
- *jambū*: 85
jambū
- jambu: 85
jāṅgala
- arid-land animals:
90
jaṅgama
- mobile: 59
jaṭhara
- bellyache: 71
jātī
- royal jasmine: 95
juice of cow-dung
- *gośakṛt*: 85
juices
- *rasa*: 88
kāca
- glassy opacity: 89
kākapada
- crow's foot: 69
kākolī

- cottony jujube: 95
kālānusāriṇa
 - indian
 sarsaparilla: 86
kalka
 - mash: 71
kalpa
 - procedure: 81
 - rule: 72
kaṇabha
 - wasps: 73
kaṇṭaka
 - spots: 55
kapha
 - mucus: 55
 - phlegm: 64, 66, 68, 102
kapittha
 - wood apple: 85
 - wood apple: 85
karma
 - regimen: 93
karṇinī
 - protuberant: 102
kārśmarī
 - white teak: 85
kaśāya
 - decoctions: 50, 93
kaśāyavāsika
 - 'orange-dwellers': 73
kāśīpati
 - lord of kāśī: 49
kāśīsa
 - green vitriol: 90
kaṭphala
 - box myrtle: 86
kaumārabhṛtya
 - child bearing: 97
kauṇḍinya
 - 'pot insects': 73
kavala
 - mouthwash: 54
kha

- apertures of the head: 55
 - follicles: 54
khara
 - rough: 93
kinihī
 - white siris: 90
kiñjalka
 - filaments: 85
 kitchen
 - mahānasa: 50
kiṭīpa
 - lice: 73
 knots
 - granthi: 65
 kohl
 - srotas: 88
 - srotoja: 86, 95
koṭha
 - skin disease: 67
kravyabhuj
 - carnivore: 88
kṛcchra
 - with difficulty: 91
kriyā
 - treatment: 90
kriyāsaṅga
 - loss of function: 93
kṛṣṇa
 - black part: 92
kṛṣṇā
 - long pepper: 84
kṣaṇadāndhya
 - night blindness: 86
kṣāraka
 - lye: 89
kṣaudra
 - honey: 85
kṣaudrāñjana
 - honey collyrium: 86
kṣaya

- dwindling away: 67
kṣīra
 - milky sap: 59, 61, 64
kuṣṭha
 - 'bellied': 73
kupyaka
 - metal: 85
kuśa grass
 - kuśa: 89
kuśa
 - kuśa grass: 89
kuṣṭha
 - pallid skin disease: 67
kvātha
 - decoction: 68
 lac
 - lākṣā: 95
lākṣā
 - lac: 95
 layer
 - paṭala: 91
 leaves
 - bhaṅga: 92
 lice
 - kiṭīpa: 73
 limpid
 - viśada: 66
liṅga
 - symptom: 55
 - symptoms: 67
liṅganāśa
 - cataract: 91
 liniment
 - ālepa: 84
 liniments
 - ālepana: 56
 liquid
 - cala: 92
 liquid collyrium
 - dravāñjana: 89
 liquorice
 - madhuka: 85

- *madhukair*: 95
 little ring of spots
 - *cuñcumālaka*: 83
 liver extract
 - *yakṣdrasa*: 86
 liver
 - *yakṣt*: 86f
 lodh tree
 - *lodhra*: 85, 89
lodhra
 - lodh tree: 85, 89
 long pepper
 - *kṛṣṇā*: 84
 - *māgadha*: 90
 - *māgadhi*: 87
 - *māgadhi*: 86, 89
 - *pippali*: 85
 loose stool
 - *vidbheda*: 64, 75
 lord of kāsī
 - *kāśipati*: 49
 loss of appetite
 - *arocaka*: 67
 loss of function
 - *kriyāsaṅga*: 93
 lotus-spots
 - *padminikaṇṭaka*: 55
 lumps
 - *granthi*: 54, 64
 lye
 - *kṣāraka*: 89
madhu
 - honey: 85
madhuka
 - liquorice: 85
madhūka
 - mahua: 88ff
madhukair
 - liquorice: 95
madhus
 - honey: 51
madira
 - spirits: 89
madirā
 - spirits: 86

māgadha
 - long pepper: 90
māgadhi
 - long pepper: 87
māgadhi
 - long pepper: 86, 89
mahānasa
 - kitchen: 50
mahāsugandha
 - great fragrance: 56
mahatī
 - huge: 102
mahāviṣa
 - great aconite: 65
 - great poison: 65
mahua
 - *madhūka*: 88ff
māṃsa
 - flesh: 54
māṃsanirgama
 - prolapse: 94
manaḥśilā
 - realgar: 86, 89f, 95
 - red arsenic: 85f
maṇḍala
 - round blotches: 67
 mango
 - *amra*: 85
mañjiṣṭhā
 - indian madder: 94
marica
 - black pepper: 85
markaṭa
 - *monkey*: 65
 mash
 - *kalka*: 71
maṣī
 - black soot: 84
 massage oil
 - *abhyaṅga*: 50, 56
 massage ointment

- *anulepana*: 50, 54
mātuluṅga
 - citron: 94
 matured
 - *vipakva*: 85
medaka
 - 'liquors': 73
 medicines cooked in a crucible
 - *puṭapāka*: 84
 men
 - *nara*: 73
 menstrual blood
 - *ārtava*: 101
meṣaśṛṅga
 - periploc of the woods: 95
meṣaviṣāṇa
 - periploc of the woods: 87
 metal
 - *kupyaka*: 85
 milk
 - *payas*: 57
 milky sap
 - *kṣīra*: 59, 61, 64
 misshapen eyeball
 - *vilocana*: 93
mithyopacāra
 - faulty medical treatment: 101
 mitigatable
 - *yāpya*: 84
mlāyin
 - blue dot cataract: 91
 mobile
 - *jaṅgama*: 59
moha
 - delirium: 63
 monitor lizard
 - *godhā*: 87
monkey
 - *markaṭa*: 65
 monkey

- *vānara*: 73
 morsel
 - *bali*: 50
 mouthwash
 - *kavala*: 54
mṛdu
 - gently: 94
 mucus
 - *kapha*: 55
mudga
 - mung beans: 91
mukhasaṃdamśā
 - nipping with the
 mouth: 72
muktā
 - pearl: 91
muktvā
 - separate: 92
mūlaka
 - *mūlaka*: 65
mūlaka
 - *mūlaka*: 65
 mung beans
 - *mudga*: 91
mūrcchā
 - stupor: 52
mustā
 - nutgrass: 95
mustaka
 - mustaka: 65
 mustaka
 - *mustaka*: 65
 myrobalan
 - *pathyā*: 85
na ced
 - if, then not: 92
nadīja
 - salt: 85
nāga
 - elephant/snake:
 74
nāgara
 - dried ginger: 86
nalada
 - spikenard: 90

nalina
 - indian lotus: 85
nara
 - men: 73
 nasal medicine
 - *nasya*: 68
 nasal medicines
 - *nasya*: 84
nasya
 - errhine: 88
 - errhines: 56
 - nasal medicine:
 68
 - nasal medicines:
 84
 - snuff: 55
nasya
 - *snuff*: 50
 naturally-occurring
 - *daivakṛte*: 92
 needle
 - *sūcī*: 92
 night blindness
 - *kṣaṇadāndhya*: 86
niḥkvātha
 - stewed juice: 69
nīlī
 - indigo: 53
 nipping with the mouth
 - *mukhasaṃdamśā*:
 72
nirviṣa
 - without venom:
 83
niryāsa
 - extract: 56
 - resin: 59, 61, 64
niśācara
 - nocturnal
 creature: 90
niṣevita
 - prepared: 88
 - used: 87
 nocturnal creature
 - *niśācara*: 90

non-bloodshot
 blindness
 - *araga timira*: 91
 non-flowering tree
 - *vanaspati*: 90
 numbness
 - *svāpa*: 56
 nutgrass
 - *mustā*: 95
 ochre
 - *gairika*: 84f
 off his hand
 - *sapāṇa*: 88
 oil massage
 - *abhyāṅga*: 54
 ointment
 - *anulepana*: 54
 - *pralepa*: 52, 55
 opening
 - *chidra*: 92
 ophidian
 - *sarpita*: 83
 or not distorted
 - *vāvikṛtā*: 53
 outer corner of the eye
 - *apāṅga*: 92
padmaka
 - himalayan cherry:
 95
padminīkaṇṭaka
 - lotus-spots: 55
 pain
 - *śūla*: 68
pāka
 - sepsis: 56
pākamatsya
 - 'cook-fish': 73
pakvādhāna
 - intestines: 68
pakvāśaya
 - intestines: 53, 67
palāśa
 - flame of the
 forest: 89

pallava
 - shoots: 92
 pallid skin disease
 - *kuṣṭha*: 67
pañcāṅgulataila
 - castor oil: 87
 panic grass
 - *dūrvā*: 94
paribhāṣā
 - general rule: 90
pariplutā
 - flooded: 102
pariṣeka
 - shower: 54
parśvabheda
 - ribs crack: 68
 partial blindness
 - *timira*: 87
pāruṣya
 - hoarseness: 64
paṭala
 - layer: 91
pāthā
 - velvet leaf: 90
pathyā
 - myrobalan: 85
patra
 - cassia cinnamon:
 94
patravṛścika
 - 'wing-scorpions':
 73
pavanodbhava
 - caused by wind:
 87
payas
 - milk: 57
payasyā
 - holostemma: 94
 pearl
 - *muktā*: 91
 pebble
 - *aṣṭhīlā*: 52
 periploca of the woods
 - *meṣaviṣāṇa*: 87

periploca of the woods
 - *meṣaśṛṅga*: 95
 pervasive
 - *vyavāyin*: 66
phena
 - cuttlefish bone: 95
 phlegm
 - *kapha*: 64, 66, 68,
 102
 phlegmatic
 - *śleṣmalā*: 102
piccītā
 - 'flat insects': 73
pīḍ-
 - press: 92
 piercing
 - *vyadha*: 92
 pigs' eye
 - *sūkarākṣitā*: 94
 pill
 - *guḍikā*: 85
pippali
 - long pepper: 85
 pith
 - *sāra*: 59, 61, 64
pitta
 - bile: 87
 - choler: 102
pittalā
 - bilious / choleric:
 102
plīhan
 - spleen: 87
plutā
 - sprung: 102
pra√sādh
 - clean: 56
pra√kuth
 - rot: 53
prabha
 - shine: 91
pracalāka
 - 'poisonous
 snakes': 73
pragāḍha

- steeped: 88
pralāpa
 - ranting: 63
pralepa
 - ointment: 52, 55
praseka
 - discharge: 64
pratīkāra
 - remedy: 84
pratipūraṇa
 - irrigated: 55
pratisāraṇa
 - rub: 53
 - rubbing: 53
pratiṣedha
 - counteraction: 84
 prepared
 - *niṣevita*: 88
 prepared with tilvaka
 - *tailvaka*: 84
 prepared with turpeth
 - *traivṛta*: 84
 press
 - *pīḍ-*: 92
priyaṃgu
 - beautyberry: 85
priyaṅgu
 - beauty berry: 89
 probe
 - *śalākā*: 92f
 procedure
 - *kalpa*: 81
 prolapse
 - *māṃsanirgama*: 94
 prolapses
 - *arśas*: 101
 protuberant
 - *karṇinī*: 102
prṣata
 - chital deer: 51
prṭhakparṇī
 - hare foot uraria:
 95
punḍarīka
 - punḍarīka: 65

puṇḍarīka	- the blood of birds	- khara: 93
- puṇḍarīka: 65	and animals: 85	round blotches
pupil	rasakriyā	- maṇḍala: 67
- dr̥ṣṭi: 84, 92f	- inspissation: 90	royal jasmine
puṭāhvaya	rasāñjana	- jātī: 95
- taken hot: 89	- elixir salve: 85, 89f	rub
puṭākhyā	- elixir-salve: 85	- pratisāraṇa: 53
- enclosed roasting:	rauḥita	rubbing
88	- extract of rohu	- pratisāraṇa: 53
puṭapāka	carp: 85	ruj
- enclosed roasting:	realgar	- illness: 86
90	- manaḥśilā: 86, 89f,	rūkṣa
- medicines cooked	95	- dry: 66
in a crucible: 84	red arsenic	rule
- roasting: 101	- manaḥśilā: 85f	- kalpa: 72
putraghnī	red chalk	sāda
- child-murderess:	- gairikaḥ: 94	- be exhausted: 68
102	regimen	sādhya
qualities	- karma: 93	- curable: 84
- guṇa: 65	remedy	- cured: 71
racket-tailed drongo	- pratikāra: 84	saindhava
- bhṛṅgarāja: 51	resin	- salt: 68
rāgin timira	- niryāsa: 59, 61, 64	- sind salt: 84, 86
- bloodshot	restrictions	- sindh salt: 89
blindness: 89	- yantraṇā: 93	sal tree
rāgiṇi timire	rheum	- śālā: 85
- bloodshot	- upadeha: 56	śālā
blindness: 91	ribs crack	- sal tree: 85
rajana	- parśvabheda: 68	śālākā
- turmeric: 86	rigid	- probe: 92f
rājimat	- sthira: 93	salilotthita
- striped snake: 69	roasting	- conch: 90
raktakṣayā	- puṭapāka: 101	- water-born: 90
- with bloodloss:	roga	saliva
102	- diseases: 101	- śleṣman: 52
ranting	rogasamgraha	salt
- pralāpa: 63	- compendium of	- nadīja: 85
rarified	diseases: 100	- saindhava: 68
- sūkṣma: 66	rohita	samāñjana
rasa	- rohita tree: 89	- same collyrium:
- chyle: 67	rohita tree	89
- extracts: 89	- rohita: 89	śambūka
- juices: 88	rot	- cone snails: 73
	- pra√kuth: 53	same collyrium
	rough	- samāñjana: 89

samudraphena
 - cuttlefish bone: 86
sandal
 - *sugandhi*: 87
śaṇḍhī
 - impotent: 102
sapāṇa
 - off his hand: 88
sāra
 - pith: 59, 61, 64
śārava
 - 'lids': 73
śārikā
 - 'darts': 73
sāriva
 - indian
 sarsaparilla: 86
śārīvā
 - indian
 sarsaparilla: 94
sarpis
 - ghee: 84
sarpiṣ
 - ghee: 57
sarpita
 - ophidian: 83
 - serpented: 83
sārṣapa
 - *sārṣapa*: 64
sārṣapa
 - *sārṣapa*: 64
sarṣapaka
 - 'pepper snakes':
 73
sarvātmikā
 - *sarvātmikā*: 102
sarvātmikā
 - *sarvātmikā*: 102
śastrakṣata
 - cutting with a
 blade: 84
śātakumbhī
 - gold: 94
śatāvarī

- wild asparagus:
 91
sauvīraka
 - stibnite: 85
 scrambling
 - *tālīśa*: 85
 - *tālīśapatra*: 86
 seeing smoke
 - *dhūmadarśin*: 84
seka
 - irrigation: 84
 semen
 - *bīja*: 101
 separate
 - *muktvā*: 92
 sepsis
 - *pāka*: 56
 serpented
 - *sarpita*: 83
 shine
 - *prabha*: 91
 shooting pain
 - *śūla*: 93
 shoots
 - *pallava*: 92
 shower
 - *parīṣeka*: 54
siddhārthaka
 - white mustard: 94
siddhi
 - cure: 69
 side-effects
 - *upadrava*: 56, 71
 signs
 - *cihna*: 102
śigru
 - horseradish tree:
 90
 sind salt
 - *saindhava*: 84, 86
 sindh salt
 - *saindhava*: 89
sirāvedha
 - blood-letting: 84
 siris

- *śirīṣa*: 85, 95
śirīṣa
 - siris: 85, 95
śīta
 - elixir-salve: 85
sitā
 - white sugar: 95
 skin disease
 - *koṭha*: 67
 sleep
 - *svāpa*: 63
śleṣmalā
 - phlegmatic: 102
śleṣman
 - saliva: 52
 slow-acting poison
 antidote
 - *dūṣṭviṣāri*: 53
 slow-acting poison
 - *dūṣṭ-viṣa*: 67
 - *dūṣṭviṣa*: 71
 sniffing
 - *ucchiṅgana*: 92
 snuff
 - *nasya*: 55
snuff
 - *nasya*: 50
 solid
 - *styāna*: 92
 soma creeper
 - *somalatā*: 52
somalatā
 - soma creeper: 52
śonita
 - blood: 87
śonita-pitta, rakta-pitta
 - blood-bile: 87
śonitena
 - with blood: 93
 soot
 - *gr̥hadhūma*: 78
sphoṭa
 - spots: 55f
 spikenard
 - *nalada*: 90

spiral
 - *āvarta*: 91
 spirits
 - *madirā*: 86
 - *madira*: 89
 spleen
 - *plīhan*: 87
 spots
 - *kaṇṭaka*: 55
 - *sphoṭa*: 55f
 sprung
 - *plutā*: 102
sraja
 - garlands: 50
sraṃsanī
 - causing a fall: 102
srāva
 - discharge: 54, 56
srotas
 - kohl: 88
srotoja
 - kohl: 86, 95
 stalk
 - *vr̥nta*: 85
 stationary
 - *sthāvara*: 59
 steeped
 - *pragāḍha*: 88
 stewed juice
 - *niḥkvātha*: 69
sthāvara
 - stationary: 59
sthirā
 - rigid: 93
 stibnite
 - *añjana*: 89
 - *sauvīraka*: 85
 stings
 - *śūla*: 73
 stirred with goat's milk
 - *ajākṣīrārdita*: 95
 stomach
 - *āmāśaya*: 67f
 striped snake
 - *rājimat*: 69

strong mallow
 - *atibalā*: 88
 stupor
 - *mūrcchā*: 52
styāna
 - solid: 92
 successive shocks
 - *vega*: 81
sūcī
 - needle: 92
sūcīvaktrā
 - with a needle-like
 opening: 102
sugandhi
 - sandal: 87
śūka
 - bristles: 72
sūkarākṣitā
 - pigs' eye: 94
sūkṣma
 - rarified: 66
śūla
 - pain: 68
 - shooting pain: 93
 - stings: 73
 sun
 - *hari*: 92
 supernatant layer
 - *agra*: 89
svāpa
 - numbness: 56
 - sleep: 63
svarasa
 - expressed juice:
 85
 - extracted juice: 55
śvāsa
 - wheezing: 63
svayamīgupta
 - velvet bean: 85
syanda
 - watery eye: 91
 symptom
 - *liṅga*: 55
 symptoms

 - *liṅga*: 67
tailasugandhi
 - the fragrant one in
 oil: 87
tailvaka
 - prepared with
 tilvaka: 84
 taken hot
 - *puṭāhvaya*: 89
 takes the form of
 pervading the whole
 body
 -
 akhiladehavyāptirūpam: 66
tālīśa
 - scrambling: 85
tālīśapatra
 - scrambling: 86
tāmra
 - copper: 94
tāmracūḍa
 - cock: 88
tarpaṇa
 - eyewash: 56, 84,
 89f
 - irrigation: 101
tatra
 - in those cases: 87
 the blood of birds and
 animals
 - *rasa*: 85
 the fragrant one in oil
 - *tailasugandhi*: 87
 the three fruits
 - *triphalā*: 89
 the three spices
 - *vyoṣa*: 86
 three fruits
 - *triphalā*: 84, 86
timira
 - blindness: 91
 - partial blindness:
 87
 torn

- *darita*: 83
toṭaka
 - 'angry beetles': 73
traivṛta
 - prepared with
 turpeth: 84
 treatable
 - *yāpya*: 71
 treatment
 - *bheṣaja*: 102
 - *kriyā*: 90
 tree turmeric
 - *dārvi*: 85
triphalā
 - the three fruits: 89
 - three fruits: 84, 86
trivṛt
 - turpeth: 87f
 turmeric
 - *haridrā*: 90
 turmeric
 - *rajana*: 86
 turpeth
 - *trivṛt*: 87f
tuttha
 - blue vitriol: 89
ucchiṅgana
 - sniffing: 92
uccīṅga
 - crabs: 73
udāvartā
 - *udāvartā*: 102
udāvartā
 - *udāvartā*: 102
udveṣṭana
 - writhing: 63
 unsteadiness of the
 humours
 - *doṣapariplava*: 93
 untreatable
 - *asādhya*: 91
upadeha
 - rheum: 56
upadrava
 - side-effects: 56, 71

upahita
 - combined: 87
upasarga
 - affliction: 56
 used
 - *niṣevita*: 87
uśīra
 - cuscus grass: 89f
utpala
 - blue lotus: 85
utpīḍita
 - injured: 91
utsādana
 - dry rub: 54
 - dry rubs: 50
vaiḍūrya
 - beryl: 95
vakrabhrūnetra
 - bent brow and
 eye: 93
vaktra
 - ends: 94
vāminī
 - vomiting: 102
vānara
 - monkey: 73
vanaspati
 - non-flowering
 tree: 90
vandhyā
 - infertile: 102
 vapour
 - *bāṣpa*: 51f, 55
varaki
 - wasps: 73
varcaḥkīṭa
 - dung beetles: 73
vartti
 - wicks: 95
vasā
 - fat: 88
vāta
 - wind: 101f
vātalā
 - windy: 102

vāvikṛtā
 - or not distorted:
 53
vega
 - successive shocks:
 81
 velvet bean
 - *svayaṃgupta*: 85
 velvet leaf
 - *pāthā*: 90
vidagdha
 - inflamed: 84
vidāṅga
 - embelia: 90
viḍbheda
 - loose stool: 64, 75
vidruma
 - coral: 95
vikāsin
 - expansive: 66
vilocana
 - misshapen
 eyeball: 93
vipakva
 - matured: 85
viśada
 - limpid: 66
viśleṣa
 - disjunction: 67
viśvambhara
 - 'earth scorpions':
 73
voḍhāra
 - bearers: 50
 vomiting
 - *vāminī*: 102
vṛnta
 - stalk: 85
vṛṣabha
 - bull: 51
vyadha
 - piercing: 92
vyavāyin
 - pervasive: 66
vyoṣa

- the three spices: 86	- <i>sūcīvaktrā</i> : 102	<i>yantraṇā</i>
wasps	with blood	- restrictions: 93
- <i>kaṇabha</i> : 73	- <i>śonitena</i> : 93	<i>yāpya</i>
- <i>varaki</i> : 73	with bloodloss	- alleviated: 87
water-born	- <i>raktakṣayā</i> : 102	- can be mitigated: 91
- <i>salilotthita</i> : 90	with difficulty	- mitigatable: 84
watery eye	- <i>kṛcchra</i> : 91	- treatable: 71
- <i>syanda</i> : 91	with testicles	<i>yavāgū</i>
wheezing	- <i>aṇḍinī</i> : 102	- gruel: 69
- <i>śvāsa</i> : 63	without venom	<i>yavaudana</i>
white mustard	- <i>nirviṣa</i> : 83	- cooked barley: 91
- <i>siddhārthaka</i> : 94	womb	<i>yoga</i>
white siris	- <i>yoni</i> : 98	- compounds: 84
- <i>kinihī</i> : 90	wood apple	<i>yoni</i>
white sugar	- <i>kapittha</i> : 85	- female
- <i>sitā</i> : 95	wood apple	reproductive organ: 101f
white teak	- <i>kapittha</i> : 85	- female
- <i>kārśmarī</i> : 85	writhing	reproductive system: 101
wicks	- <i>udveṣṭana</i> : 63	- womb: 98
- <i>vartti</i> : 95	<i>yakṛdrasa</i>	<i>yonivyāpat</i>
wild asparagus	- liver extract: 86	- disorders of the female reproductive system: 101
- <i>śatāvārī</i> : 91	<i>yakṛt</i>	- <i>ajeya</i> : 71
wind	- liver: 86f	
- <i>vāta</i> : 101f	<i>yamalā</i>	
windy	- double: 53	
- <i>vātalā</i> : 102	<i>yāmya</i>	
with a needle-like opening	- in yama's direction: 78	

Materia Medica Reference Works

ADPS	Sivarajan, V. V., and Balachandran, Indira (1994), <i>Ayurvedic Drugs and Their Plant Sources</i> (New Delhi, Bombay, Calcutta: Oxford & IBH Publishing).
AVS	Warrier, P. K., Nambiar, V. P. K., and Ramankutty, C. (1994–96) (eds.), <i>Indian Medicinal Plants: A Compendium of 500 Species. Vaidyaratnam P. S. Varier's Arya Vaidya Sala, Kottakal</i> (Madras: Orient Longman).

BIA	Prater, S. H. (1993), <i>The Book of Indian Animals</i> (3rd edn., Bombay, Delhi, etc.: Oxford University Press); 4th impression of 3rd corrected 1980 edition.
Chopra	Chopra, R. N., Nayar, S. L., and Chopra, I. C. (1956), <i>Glossary of Indian Medicinal Plants</i> (3rd reprint, 1992, New Delhi: Council of Scientific and Industrial Research); vol. 2: R. N. Chopra, I. C. Chopra, and Varma (Chopra_{sup}).
Chopra IDG	Chopra, R. N., Chopra, I. C., Handa, K. L., et al. (1958), <i>Chopra's Indigenous Drugs of India</i> (2nd edn., Calcutta: Dhur & Sons), ark:/13960/t9673t140 .
Chopra _{sup}	Chopra, R. N., Chopra, I. C., and Varma, B. S. (1969), <i>Supplement to Glossary of Indian Medicinal Plants</i> (Reprint 1986, New Delhi: National Institute of Science Communication), ISBN: 8185038872.
CIPP	Pillay, V. V. (2010), "Common Indian Poisonous Plants," in D. A. Warrell, T. M. Cox, and J. D. Firth (eds.), <i>Oxford Textbook of Medicine</i> (5th edn., Oxford University Press), 1371–5. DOI: 10.1093/med/9780199204854.003.090302 .
Dutt	Dutt, Uday Chand (1922), <i>The Materia Medica of the Hindus...with a Glossary of Indian Plants by George King. Revised Edition...by Binod Lall Sen and Ashutosh Sen and Pulin Krishna Sen</i> (Krishnadas Sanskrit Studies; 3rd edn., Calcutta: Madan Gopal Dass for the Adi-Ayurveda Machine Press), ark:/13960/t59c7tg9z ; Reprinted Varanasi: Chowkhamba Saraswatibhavan, 1980.
Dymock	Dymock, William, Warden, C. J. H., and Hooper, David (1890), <i>Pharmacographia Indica: A History of the Principal Drugs of Vegetable Origin Met with in British India</i> (London, Bombay, Calcutta: Kegan Paul), URL , accessed 16/03/2023.
GJM ₁	Meulenbeld, Gerrit Jan (1974a), "Sanskrit Names of Plants and their Botanical Equivalents," in id., <i>The Mādhavanidāna and Its Chief Commentary: Chapters 1–10. Introduction, Translation, and Notes</i> (Leiden: Brill), chap. Appendix Four, 520–611, ark:/13960/t25b8q97g .

- GJM₂ Meulenbeld, Gerrit Jan (1988), "G. J. Meulenbeld's Additions to his "Sanskrit Names of Plants and their Botanical Equivalents"," in Rahul Peter Das, *Das Wissen von der Lebensspanne der Bäume: Surapālas Vṛkṣāyurveda* (Stuttgart: Franz Steiner Verlag), chap. Appendix 1, 425–65, ISBN: 9783515046633; Supplement to GJM₁.
- GVDB Singh, Thakur Balwant, and Chunekar, K. C. (1972), *Glossary of Vegetable Drugs in Brhatṭrayī* (Varanasi: Chowkhamba Sanskrit Series Office), [ark:/13960/s2cvp72x58j](https://nbn-resolving.org/urn:nbn:de:bsz:551-13960-s2cvp72x58j).
- IGP Griffiths, Mark (1994), *The New Horticultural Society Index of Garden Plants* (London: Macmillan).
- Issar Issar, T. P. (1994), *Blossoms of Bangalore* (Bangalore: T. P. Issar).
- IW Israel, Samuel, et al. (1988), *Indian Wildlife: Sri Lanka Nepal* (Insight Guides; Singapore etc.: APA Publications), ISBN: 9780245545238.
- K&B Kirtikar, K. R., Basu, B. D., and an I.C.S (1987), *Indian Medicinal Plants*, ed. E. Blatter, J. F. Caius, and K. S. Mhaskar, 8 vols. (2nd edn., Dehradun: International Book Distributors); First published in Allahabad, 1918.
- NK Nadkarni, K. M. (1982), *Dr. K. M. Nadkarni's Indian Materia Medica, with Ayurvedic, Unani-tibbi, Siddha, Allopathic, Homeopathic, Naturopathic & Home Remedies, Appendices & Indexes ... in Two Volumes*, ed. A. K. Nadkarni, 2 vols. (3 ed., revised and enlarged by A. K. Nadkarni, Bombay: Popular Prakashan), ISBN: 8171541429, [URL](https://nbn-resolving.org/urn:nbn:de:bsz:551-13960-t14n65c9g); First published in 1954.
- Potter Wren, R. C. (1956), *Potter's New Cyclopaedia of Botanical Drugs and Preparations*, ed. R. W. Wren (7th edn., Rustington, Sussex: Health Science Press), [ark:/13960/t14n65c9g](https://nbn-resolving.org/urn:nbn:de:bsz:551-13960-t14n65c9g).
- Potter_{rev} Wren, R. C., Williamson, Elizabeth M., and Evans, Fred J. (1994), *Potter's New Cyclopaedia of Botanical Drugs and Preparations* (Saffron Walden: C. W. Daniel Company Ltd.); Reprint of revised 1988 edition.

Reptiles	Daniel, J. C. (1983), <i>The Book of Indian Reptiles</i> (Bombay: Oxford University Press).
Trees	Bole, P. V., and Vaghani, Yogini (1986), <i>Field Guide to the Common Trees of India</i> (Bombay, Delhi, Oxford, etc.: World Wildlife Fund – India and Oxford University Press), ISBN: 0-19-561595-6; 4th reprint.
Watt _{Comm}	Watt, George (1908), <i>The Commercial Products of India, Being an Abridgement of “the Dictionary of the Economic Products of India”</i> (London: John Murray), ark:/13960/t8cg7dm79 .
Watt _{Dict}	Watt, George (1889–96), <i>A Dictionary of the Economic Products of India</i> (Calcutta: Dept. Revenue and Agriculture, Government of India), URL , accessed 28/04/2021.

Glossary and Index of Medical Substances

Numbers after the final colon refer to pages in this book.

- amaranth (*taṇḍulīyaka*) *Amaranthus hypochondriacus*, L. See King 321, [NK](#): 1, #144, [Potter_{rev}](#): 15. Cf. [AVS](#): 1, 121: 51
- axlewood (*dhava*) *Anogeissus latifolia* (Roxb. ex DC.) Wall. ex Guill & Perr. See [AVS](#): 1, 163 f, [Chopra](#): 20: 70
- bamboo leaves (*veṇupatrikā*) *Bambusa bambos*, Druce. See [NK](#): 1, #307: 51
- beautyberry (*priyaṅgu*) → *śyāmā*. *Callicarpa macrophylla*, Vahl. See [AVS](#): 1, 334, [NK](#): 1, #420. Some say also *Setaria italica* Beauv. [GVDB](#): 263–264. See also [GVDB](#): 413: 67, 71
- beautyberry (*śyāmā*) *Callicarpa macrophylla*, Vahl. See [AVS](#): 1, 334, [NK](#): 1, #420: 49, 51
- beggarweed (*aṃśumatī*) *Desmodium gangeticum* (L.) DC ([Dymock](#): 1, 428, [GJM1](#): 602, [NK](#): 1, #1192; [ADPS](#): 382, 414 and [AVS](#): 2, 319, 4.366 are confusing): 67
- beggarweed (*vidārigandhā*) → *śālapanṇī*. *Desmodium gangeticum* (L.) DC. See [Dymock](#): 1, 428, [GJM1](#): 602, cf. [NK](#): 1, #1192; [ADPS](#): 382, 414 and [AVS](#): 2, 319, 4.366 are confusing: 40
- black creeper (*pālindī*) *Ichnocarpus frutescens*, (L.) R.Br. or *Cryptolepis buchanani*, Roemer & Schultes. See [AVS](#): 3, 141, 3.145, 3.203, [NK](#): 1, #1283, 1210, [ADPS](#): 434: 51, 54, 66, 67
- blackboard tree (*saptachada*) *Alstonia scholaris* R. Br. [GVDB](#): 420: 50
- blackbuck (*harīṇa*) *Antelope cervicapra*, L. See [BIA](#): 270 [IW](#): 95, 165, *et passim*: 54
- blue water-lily (*utpala*) *Nymphaea stellata*, Willd. See [GJM1](#): 528, [IGP](#) 790; [Dutt](#): 110, [NK](#): 1, #1726: 25, 49, 66, 67
- cardamom (*elā*) *Elettaria cardamomum*, Maton. See [AVS](#): 2, 360, [NK](#): 1, #924, [Potter_{rev}](#): 66: 67, 71
- cassia cinnamon (*patra*) *Cinnamomum tamala*, (Buch.-Ham.) Nees. See

- AVS: 2, 84, NK: 1, #589: 51, 67
 castor oil tree (*gandharvahasta*) → *eraṇḍa*.
 GVDB: 135, K&B: 3, 2277: 37
 castor-oil (*eraṇḍa*) *Ricinus communis*, L.
 See NK: 1, #2145, Chopra: 214: 42
 certain minerals (*tārāvitāra*) Unknown. It is not even certain that these are minerals. The variant reading in the vulgate, *tāraḥ sutāraḥ* was glossed by Ḍalhaṇa on 5.3.14 (Su 1938: 568) as follows *tāro rūpyaṃ, sutāraḥ pāradaḥ*, “tāra means silver; sutāra means mercury.” : 71
 chaff (*kāṇḍana*) The word *kāṇḍana* is not found in dictionaries; *kaṇḍana* is threshing, separating the chaff from the grain in a mortar. Cf. Hemādri’s *Caturvargacintāmaṇi* (PWK: 2, 8) (Śiromaṇi 1873: 1, 138: 21, citing the *Vāyupurāṇa*) : 26, 138
 chebulic myrobalan (*haritakī*) *Terminalia chebula* Retz. GVDB: 466: 50
 cherry (*elavālu*) *Prunus cerasus*, L.?. See BVDB 58, NK: 1, #2037, GVDB: 58: 67
 chital deer (*prṣata*) *Axis axis*, Erxleben.
 See BIA: 292, IW: 93: 54
 cobra’s saffron (*nāgapuṣpa*) → *nāgakeśara*.
Mesua ferrea, L. See NK: 1, #1595, GVDB: 220: 67
 corky coral tree (*pāribhadra*) *Erythrina suberosa* Roxb. See GVDB 245: 70
 costus (*kuṣṭha*) *Saussurea costus*, Clarke.
 See NK: 1, #2239: 51, 67, 71
 country mallow (*atibālā*) *Abutilon indicum*, (L.) Sweet, but may be other kinds of mallow, e.g., *Sida rhombifolia*, L.. See NK: 1, #11, IGP: 1080, NK: 1, #2300, ADPS: 71, 77: 40
 country sarsaparilla (*anantā*)
Hemidesmus indicus, (L.) R. Br. See ADPS: 434, AVS: 3, 141–5, NK: 1, #1210. But see GVDB: 13 for complications that may suggest that it is to be equated with *sārivā*, which may sometimes be *Cryptolepis* or *Ichnocarpus frutescens*
 R. Rr. (GVDB: 429–431) : 40, 56, 66, 67, 70
 crape jasmine (*nata*) → crape jasmine
 GVDB: 215: 134, 135
 crape jasmine (*tagara*) *Tabernaemontana divaricata* (L.) R.Br. ex Roem. & Schultes. See GJM1: 557, AVS: 5, 232. Synonym of crape jasmine. But some say *Valeriana jatamansi*, Jones See GVDB: 173–174 for discussion (and charming comments on brain liquid testing). Some say *tagara* is Indian rose-bay or Indian valerian, but there remain many historical questions about the ancient and regional identities of this plant See, e.g., AVS: 5, 334: 51, 67, 134, 135
 crimson trumpet-flower tree (*pāṭalā*)
Stereospermum chelonides, (L. f.) A. DC. See GJM1: 573, AVS: 5, 192 ff, ADPS: 362 f, AVS: 3, 1848 f, IGP 1120, Dymock: 3, 20 ff: 70
 cuscus grass (*uśīra*) *Andropogon murcatus*, Retz. Also “vetiver grass.” See NK: 1, #180: 51
 datura (*dhattūra*) *Datura metel*, L. See AVS: 2, 305 (cf. *Abhidhānamañjarī*), NK: 1, #796 ff. Potter_{rev}: 292 f, ADPS: 132: 37
 deodar (*bhadrādāru*) *Cedrus deodara*, (Roxb.ex D.Don) G. Don. See AVS 41, NK: 1, #516: 67
 dried meat (*vallūra*) MW: 929, AyMahā: 1, 730. The term is used, rarely, in both the CS (1.5.10) and SS (1.13. 16, 6.42.75–76). It is a Dravidian loanword and occurs in the *Arthaśāstra* etc. (KEWA: 3, 167) : 25
 elixir salve (*rasāñjana*) → *añjana*. See Indian barberry : 42
 embelia (*viḍaṅga*) *Embelia ribes*, Burm. f. See ADPS: 507, AVS: 2, 368, NK: 1, #929, Potter_{rev}: 113: 67
 emetic nut (*madana*) *Randia dumetorum*, Lamk. See NK: 1, #2091: 49

- false daisy (*subhaṅgurā*) (su)bhaṅgura = bhr̥ṅga? *Eclipta prostrata* (L.) L. See [GVDB: 288: 56](#)
- fermented rice-water (*dhānyāmla*) → *kāñjī*, *kāñjikā*, *sauvīra*. [GVDB: 458](#), [NK: 2](#), appendix VI, #18: [39](#)
- fern (*ajaruhā*) *Nephrodium* species [GVDB: 7](#), uncertain. Perhaps *Christella dentata* (Forssk.) Brownsey & Jermy, which is reported to have folk applications against skin diseases in India: [53](#)
- fire-flame bush (*dhātakī*) *Woodfordia fruticosa* (L.) Kurz. See [AVS: 5, 412](#), [NK: 1, #2626: 50](#)
- fragrant lotus (*saugandhika*) A type of *kumuda* or *utpala* ([GVDB: 457](#)): [25](#)
- garjan oil tree (*aśvakarṇa*) *Dipterocarpus turbinatus* Gaertn. f. See [GVDB: 28](#), [Chopra: 100: 70](#)
- giant potato (*kṣīravidārī*) possibly → *kṣīraśukla*. *Ipomoea mauritiana*, Jacq. See [ADPS: 510](#), [AVS: 3, 222](#), [AVS: 3, 1717 ff: 136–138](#)
- ginger (*mahaṣadha*) *Zingiber officinale*, Roscoe. See [ADPS: 50](#), [NK: 1, #2658](#), [IGP: 1232: 54](#)
- gold (*hema*) gold: [67](#)
- gold and sarsaparilla (*surendragopa*) Unknown. Ḍalhaṇa on 5.3.15 ([Su 1938: 568](#)) glossed *surendra* as “gold” and *gopā* as “Indian sarsaparilla.” He also noted other opinions that *surendra* was “Tellicherry bark”: [71](#)
- golden shower tree (*rājadruma*) *rājadruma* = *āragvadha*. *Cassia fistula* L. See [GVDB 37: 70](#)
- gourd (*alābu*) *Lagenaria siceraria* Standl. [GVDB: 25](#). Some say *Lagenaria vulgaris*, Seringe ([NK: 1, #1419](#)) but this is not appropriate for blood-letting: [21, 22, 50](#)
- heart-leaf sida (*balā*) *Sida cordifolia*, Linn. See [ADPS: 71](#), [NK: 1, #2297: 40, 67](#)
- heart-leaved moonseed (*amṛtā*) → *guḍūcī*. *Tinospora cordifolia*, (Willd.) Hook.f. & Thoms.?. See [ADPS: 38](#), [NK: 1, #2472, 624](#), [Dastur #229: 51, 66](#)
- heart-leaved moonseed (*somavallī*) *Tinospora cordifolia* (Thunb.) Miers. [GVDB: 456](#). Likely, but uncertain: [51](#)
- henna (*madayantikā*) *Lawsonia inermis*, L. See [AVS: 3, 303](#), [NK: 1, #1448](#), [Potter_{rev}: 151: 52](#)
- Himalayan mayapple (*vakra*) *Podophyllum emodi*, Wall. ([NK: #1971](#)). But perhaps a synonym of [crape jasmine](#) and [crape jasmine](#) ([GVDB: 354](#)): [71](#)
- Himalayan monkshood (*ativiṣā*) *Aconitum heterophyllum* Wall. [GVDB: 12](#), [NK: 1, #39](#). Also “atis roots”: [52, 54, 71](#)
- hogweed (*punarnavā*) *Boerhaavia diffusa*, L. See [ADPS: 387](#), [AVS: 1, 281](#), [NK: 1, #363: 52, 66](#)
- Holostemma creeper (*jīvantī*) → *sūryavallī*? *Holostemma ada-kodien*, Schultes. See [ADPS: 195](#), [AVS: 3, 167](#), [169](#), [NK: 1, #1242: 137](#)
- horned pondweed (*śaivāla*) also *śaivāla*, *śevāra*. *Zannichellia palustris* L. The uncertainties of this identification are discussed by Singh and Chuneekar ([GVDB: 409](#)). Sometimes identified with [scutch grass](#) (*dūrvā*) ([GVDB: 409](#)). Identified as *Ceratophyllum demersum* Linn. (“hornwort”) by [AVS: 2, 56–57x: 136, 138](#)
- hornwort (*jalaśūka*) → *jalanīlikā*. *Ceratophyllum demersum*, L. See [AVS: 2, 56](#), [IGP: 232](#). Singh and Chuneekar ([GVDB: 166](#)) suggest [horned pondweed](#). Ḍalhaṇa noted on 1.16.19 ([Su 1938: 79](#)) that some people interpret it as a poisonous, hairy, air-breathing, underwater creature: [40](#)
- Indian barberry (*añjana*) → *rasāñjana*, *dāruharidrā*. *Berberis aristata*, DC.

- Dymock: 1, 65, NK: 1, #335, GJM1: 562, IGP: 141: 42, 53, 135
- Indian barberry (*dāruharidrā*) *Berberis aristata*, DC. See Dymock: 1, 65, NK: 1, #685, GJM1: 562, IGP 141: 66, 67
- Indian barberry (*kālīyaka*) → *dāruharidrā*, *añjana*. *Berberis aristata*, DC. See Dymock: 1, 65, NK: 1, #685, GJM1: 562, IGP: 141: 51
- Indian ipecac (*payasyā*) Uncertain. Possibly *Tylophora indica* (Burm.f.) Merr. Perhaps a synonym of *panacea twiner*, *giant potato*, *purple roscoea*, and *plants like asthma plant and Gulf sandmat* (GVDB: 237–238). Also “curds” when not a plant: 40, 137
- Indian kudzu (*vidārī*) → *payasyā*. *Pueraria tuberosa* (Willd.) DC. See ADPS: 510, AVS: 1, 792 f, AVS: 4, 391; not Dymock: 1, 424 f. See GJM2: 444, 451, AVS: 1, 187, but AVS: 3, 1719 = *Ipomoea mauritiana*, Jacq: 40
- Indian madder (*mañjiṣṭhā*) *Rubia cordifolia*, L. See IGP, Chopra: 215, GVDB: 289: 37, 67
- Indian mottled eel (*varmimatsya*) Almost certainly the mottled eel. MW: 962c noted that the *varmi* fish “is commonly called *vāmi*.” The “vam fish,” or “বান মাছ (*bān māch*)” in Bengal, is a marine and freshwater eel, *Anguilla bengalensis*. It is the most common eel in Indian inland waters and a prized food fish (Froese and Pauly 2022). However, some NIA languages identify the “vam” fish with the Indian Pike Conger, *Congresox talabonides* (Bleeker) (Talwar and Kacker 1984: 235, 236): 23
- Indian mustard (*sarṣapa*) *Brassica juncea*, Czern. & Coss. See AVS: 1, 301, NK: 1, #378: 26
- Indian sarsaparilla (*sārivā*) → *anantā*. *Hemidesmus indicus*, (L.) R. Br. ADPS: 434, AVS: 3, 141–5, NK: 1, #1210; and black creeper, *pāliṇī*. *Ichnocarpus frutescens*, (L.) R.Br. or *Cryptolepis buehneri*, Roemer & Schultes AVS: 3, 141, 3.145, 3.203, NK: 1, #1283, 1210, ADPS: 434: 66, 67, 135
- jambul (*jambū*) *Syzygium cumini*, (L.) Skeels. See ADPS: 188, NK: 1, #967, Potter_{rev}: 168, Wujastyk 2003a: 50
- jasmine (*mālatī*) *Jasminum grandiflorum*, L. See NK: 1, #1364: 51
- jequirity (*guñjā*) *Abrus precatorius*, L. See AVS: 1, 10, NK: 1, #6, Potter_{rev}: 168: 56
- lac (*lākṣā*) *Kerria lacca* (Kerr.). See GJM1: 445, NK: 2, #32. Watt (Watt_{Comm}: 1053–1066) is characteristically informative, and is definite about the antiquity of lac in India: 71
- liquorice (?) (*klītaka*) *Glycyrrhiza glabra*, L.? GVDB: 123–124 discuss the many difficulties in identifying this plant: 56
- liquorice (*madhuka*) see *yaṣṭīmadhuka*: 40, 54, 65, 67
- liquorice (*yaṣṭīmadhuka*) *Glycyrrhiza glabra*, L. AVS: 3, 84, NK: 1, #1136, GVDB: 329 f.: 42
- lodh tree (*lodhra*) *Symplocos racemosa*, Roxb. See GJM1: 597, ADPS: 279 f, NK: 1, #2420. Singh and Chuneekar (GVDB: 351–352) notes that there are two varieties, *S. racemosa*, qualified as *śāvara*, and *S. crataegoides* Buch.-Ham. for *paṭṭikā lodhra*: 67
- long pepper (*māgadha*) *Piper longum*, L. See NK: 1, #1928; but cf. AVS: 3, 245: 53
- long pepper (*pippalī*) *Piper longum*, L. See ADPS: 374, NK: 1, #1928: 54, 67
- luffa (*koṣṭakī*) = *koṣṭakī*. *Luffa cylindrica*, (L.) M. J. Roem. or *L. acutangula*, (L.) Roxb. ADPS: 252–253, NK: 1, #1514 etc. GVDB: 121: 50, 66, 137
- luffa gourd (*koṣavatī*) = *koṣṭakī*, luffa: 66
- mango (*āmra*) *Mangifera indica* Linn. GVDB: 37: 50
- marking-nut tree (*bhallātaka*) *Semecarpus anacardium*, L. See NK: 1, #2269,

- AVS: 5, 98: 53
medhshingi (*vijayā*2) Dolichandrone falcata (DC.) The *Sauśrutaniḥaṇṭu* gives a number of synonyms for *vijayā* (Suvedī and Tivārī 2000: 5.77, 10.143). But one of them, *viṣāṇī* (also *meṣaśṛṅgī*), is sometimes equated with *Dolichandrone falcata* (DC.) Seemann (ADPS: 518; GVDB: 373 f, a plant used as an abortifacient and fish poison (NK: #862) : 56
- migraine tree (*agnimantha*) Premna corymbosa, Rottl. See AVS 1927, ADPS: 21, NK: 1, #2025, AVS: 4, 348; GJM1: 523: = P. integrifolia/serratifolia, L: 66
- milk-white (*kṣīraśuklā*) An unidentified plant. GVDB: 126: see purple roscoe and giant potato : 40, 138
- monitor lizard (*godhā*) Varanus bengalensis, Schneider. See Reptiles: 58: 40, 54
- mung beans (*māṣaka*) Phaseolus mungo Linn. GVDB: 308: 51
- myrobalan (*abhayā*) Terminalia chebula, Retz. See ADPS: 172, NK: 1, #2451, Potter_{rev}: 214: 66, 71
- natron (*suvarcikā*) Sodium carbonate. NK: 2, #45. Ḍalhaṇa identifies *suvarcikā* with svarjikṣāra 4.8.50 (Su 1938: 441) : 67
- neem tree (*nimba*) Azadirachta indica A. Juss. GVDB: 226: 37
- nutgrass (*kuruvinda*) Unknown. Ḍalhaṇa on 5.3.15 (Su 1938: 568) glossed the term as *nutgrass*, but noted other opinions that it was a whetstone or a very special metallic gem. Singh and Chuneekar (GVDB: 108) added that it could be a variety of rice, *ṣaṣṭika dhānya* : 71
- nutgrass (*mustā*) Cyperus rotundus, L. See ADPS: 316, AVS: 2, 296, NK: 1, #782 : 137
- panacea twiner (*arkapuṣpī*) → *arkaparṇī*, Tylophora indica (Burm. f.) Merr. GVDB: 23–24. Maybe identical to Indian ipecac, giant potato and similar sweet, milky plants. See GVDB: 24, 127, 238, 441, 443 for discussion. For discussion in the context of Holostemma creeper, see ADPS: 195 and AVS: 3, 171. The etymology of the name suggests Helianthus annuus Linn., but this plant is native to the Americas : 66, 136
- peas (*hareṇu*) hareṇu = satīna. Pisum sativum, L. Singh and Chuneekar (GVDB: 419–420, 467–468) notes that two plants are usually meant under this name, but there is no agreement on the identity of the second : 66, 67, 71
- peepul tree (*aśvattha*) Ficus religiosa, L. See ADPS: 63: 74
- periploca of the woods (*meṣaśṛṅga*) Gymnema sylvestre (Retz.) R. Br. See AVS: 3, 107, NK: 1, #1173: 53
- plants like asthma plant and Gulf sandmat (*kṣīriṇī*) various milky plants, perhaps including Euphorbia hirta Linn. (asthma plant) and E. microphylla Heyne (Gulf sandmat) (GVDB: 127) : 136
- plumed cockscomb (*indīvara*) Uncertain; possibly Celosia argentea Linn. But see the useful discussion in GVDB: 44–45. Possibly another name for thorn apple (*karambha*), q.v. : 139
- pointed gourd (*paṭola*) Trichosanthes dioica, Roxb. GVDB: 232–233: 66
- poison berry (*bṛhatī*) Solanum violaceum, Ortega. See ADPS: 100, NK: 1, #2329, AVS: 5, 151: 66, 67
- pondweed (*paripelavā*) Normally a neuter noun. Singh and Chuneekar (GVDB: 238, 264–265, 409) argued that *plava* and *śaivāla* are the same thing, and may be either Zannichellia palustris, L., or Potamogeton pectinatus, L. : 67
- pondweed (*śevāla*) Zannichellia palustris

- L. See [horned pondweed](#) : 25
- prickly chaff-flower (*apāmārga*)
Achyranthes aspera, L. See [GJM1](#): 524 f,
[AVS](#): 1, 39, [ADPS](#): 44 f, [AVS](#): 3, 2066 f,
[Dymock](#): 3, 135: 37, 40
- purging nut (*mūṣikā*) *Jatropha curcas*, L.
 See [AVS](#): 3, 261, [NK](#): 1, #1374: 53
- purple calotropis (*arka*) *Calotropis*
gigantea, (L.) R. Br. See [ADPS](#): 52,
[AVS](#): 1, 341, [NK](#): 1, #427, [Potter_{rev}](#): 57,
[Chopra IDG](#): 305–308: 40
- purple roscoeia (*kṣīrakākoli*) [GVDB](#): 89
 notes that many physicians use *Roscoeia*
procera Wall. in this context. But the
 identification is uncertain. Possibly
 connected to [milk-white](#) or [giant](#)
[potato](#): 136, 137
- rajmahal hemp (*moraṭa*) → *mūrōi*,
Marsdenia tenacissima (Roxb.) Wight
 et Arn. Good discussion at
[GVDB](#): 314–316, 324: 66
- red chalk (*gairika*) *gairika*: 67
- red gourd (*bimbī*) *Coccinia indica*, W. &
 A. See [PVS](#) 1994.4.715; [NK](#): 1, #534: 50
- rice grains (*taṇḍula*) *Oriza sativa*, Linn.
 Same as [unhusked rice](#) (*śāli*)
[GVDB](#): 174; or just “grains”: 26
- rice-grain chaff (*śālitaṇḍulakāṇḍana*) See
[chaff](#): 26
- rock salt (*saindhava*) See [NK](#): 2, M#48,
[Watt_{Comm}](#): 963–971: 26
- rosha grass (*dhyāmaka*) *Cymbopogon*
martinii (Roxb.) Wats. See [AVS](#): 2, 285,
[NK](#): 1, #177: 67
- sacred lotus (*padma*) *Nelumbo nucifera*,
 Gaertn. See [NK](#): 1, #1698: 25, 51
- sage-leaved alangium (*aṅkolla*) *Alangium*
salvifolium (Linn. f.) Wang.
[GVDB](#): 5–6: 50
- sandalwood (*candana*) *Santalum album*,
 L. See [ADPS](#): 111, [NK](#): 1, #2217: 67
- sappanwood (*pattāṅga*) Also *pattāṅga*.
Caesalpinia sappan, L. [AVS](#): 1, 323,
[K&B](#): 2, 847 f, [GVDB](#): 234: 42
- scarlet mallow (*bandhujīva*) *Pentapetes*
phoenicea, L. [NK](#): #1836, [GVDB](#): 268: 52
- scented pavonia (*bālaka*) *Pavonia odorata*,
 Willd. See [ADPS](#): 498, [NK](#): 1, #1822: 67
- scutch grass (*dūrvā*) *Cynodon dactylon*
 (Linn.) Pers. ([GVDB](#): 205): 136
- selu plum (*selu*) *Cordia myxa*, L. non
 Forssk. See [GJM1](#): 529 (2), [IGP](#): 291b, cf.
[AVS](#): 3, 1677 f; cf. [AVS](#): 2, 180 (C.
dichotoma, Forst.f.), [NK](#): 1, #672 (C.
latifolia, Roxb.): 66
- sesame oil (*taila*) *Sesamum indicum* L.
[GVDB](#): 183: 41
- siris (*śirīṣa*) *Albizia lebbbeck*, Benth. See
[AVS](#): 1, 81, [NK](#): 1, #91: 66
- siris seeds (*śirīṣamāṣaka*) *Albizia lebbbeck*,
 Benth. See [AVS](#): 1, 81, [NK](#): 1, #91: 50
- small-flowered crape myrtle (*sidhraka*)
Lagerstroemia parviflora Roxb. See
[GVDB](#): 432: 70
- spikenard (*māṃsī*) *Nardostachys*
grandiflora, DC. See [NK](#): 1, #1691: 67
- spikenard (*nalada*) → *māṃsī*.
Nardostachys grandiflora, DC. See
[NK](#): 1, #1691: 48
- sugar (*sitā*) *Ḍalhaṇa* makes this equation
 at 1.37.25 ([Su](#) 1938: 162): 67
- sunflower (*sūryavallī*) → *ādityavallī*,
sūryamukhī, *Helianthus annuus* Linn.
[GVDB](#): 35, 443: 66
- sweet plants (*madhuravarga*) The sweet
 plants are enumerated at
Suśrutasaṃhitā 1.42.11. See also
[GVDB](#): 127: 40
- sweet-scented oleander (*aśvamāraka*)
Nerium oleander, L. See [ADPS](#): 223,
[NK](#): 1, #1709: 56
- Tellicherry bark (*kuṭaja*) *Holarrhena*
pubescens Wall. ex G. Don, with
Wrightia tinctoria and *W. arborea*
 considered [GVDB](#): 101–102,
[ADPS](#): 267–270: 135
- thorn apple (*karambha*) *Datura metel*, L.
 See [GVDB](#): 76 for useful discussion.
 Also, [AVS](#): 2, 305 (cf.
Abhidhānamāñjarī), [NK](#): 1, #796 ff.

- Potter_{rev}: 292 f, ADPS: 132. Possibly the same plant as **plumed cockscomb** (*indīvara*) (GVDB: 76, 44–45): 57, 138
- three heating spices (*tryūṣaṇa*) *śuṇṭhī* (Dried ginger) *Zingiber officinale*, Roscoe. ADPS: 50, NK: 1, #2658, AVS: 5, 435, IGP 1232, pippali (long pepper) *Piper longum*, L. ADPS: 374, NK: 1, #1928, and marica (black pepper) *Piper nigrum*, L. ADPS: 294, NK: 1, #1929: 66
- three-leaved caper (*varuṇa*) *Crataeva magna* (Lour.) DC. See AVS: 2, 202; cf. NK: 1, #696: 53
- top layer of fermented liquor (*surāmaṇḍa*) K&B: 2, 502, NK: 2, appendix VI, #49, mchu-2021: 39
- tree cotton (*kārpāsa*) *G. arboreum* L. ADPS: 231. Pace the identifications of Singh and Chuneekar (GVDB: 92, 247), since *G. barbadense* L. is native to South America and *G. herbaceum* L. which is native to Africa: 37
- tree cotton (*picu*) See **tree cotton** (*kārpāsa*): 39, 42
- turmeric (*haridrā*) *Curcuma longa* Linn. GVDB: 465: 66, 71
- turmeric (*rajanī*) *Curcuma longa*, L. ADPS: 169, AVS: 2, 259, NK: 1, #750: 26, 67
- unhusked rice (*śāli*) *Oriza sativa*, Linn. GVDB: 395–396: 26, 138
- velvet-leaf (*pāṭhā*) *Cissampelos pariera*, L. See ADPS: 366, NK: 1, #592, GJM1: 573, AVS: 1, 95; cf. AVS: 2, 277: 66
- velvet-mite (*indragopa*) *Kerria lacca* (Kerr.). Lienhard 1978: 49
- verbena (*phañjī*) *Clerodendrum serratum*, L. See AVS: 2, 121, ADPS: 87: 52
- watered buttermilk (*udaśvit*) MW: 183: 50
- weaver's beam tree (*muṣkaka*) *Schrebera swietenoides*, Roxb. See AVS: 5, 88, Lord, NK: 1, #2246: 70
- white calotropis (*alarka*) *Calotropis procera*, (Ait.) R. Br. See NK: 1, #428, Chopra: 46b, Chopra IDG: 305–308: 40
- white clitoria (*śvetā*) → *giryāhvā*. *Clitoria ternatea*, L. See AVS: 2, 129, NK: 1, #621: 51
- white cutch tree (*somavalka*) *Acacia polyacantha*, Willd. See AVS: 1, 30, IGP 7, GJM1: 602, AVS: 2, 935; pace NK: 1, #1038: 52, 70
- white siris (*kiñihī*) *Albizia procera*, (Roxb.) Benth. See GVDB 98, NK: 1, #93: 66
- white water-lily (*kumuda*) *Nymphaea alba*, Linn. GVDB: 105: 25
- wild asparagus (*bahuputrā*) → *nandana*? *Asparagus racemosus*, Willd. See ADPS: 441, AVS: 1, 218, NK: 1, #264, IGP: 103, AVS: 4, 2499 ff, Dymock: 3, 482 ff: 52
- wild celery (*agnika*) → may be *bhalātaka*, *lāṅgalī*, *ajamodā*, *moraṭa*, or *agnimantha*, GVDB: 4. Uncertain: 66
- wild celery (*ajamodā*) *Apium graveolens*, L.: 66
- Withania (*aśvagandhā*) *Withania somnifera* (L.) Dunal. See AVS: 5, 409 f, Dymock: 2, 566 f., Chevallier 150: 40
- wood apple (*kapittha*) *Limonia acidissima*, L. See AVS: 3, 327, NK: 1, #1021: 51, 53
- woodrose (*mūṣikakarṇū*) *Jatopha curcas*, L. AVS: 3, 261, NK: 1, #1374. GVDB: 317; ADPS: 23–25 discuss this issue well: 51
- yellow-berried nightshade (*kṣudrā*) *Solanum virginianum*, L. See ADPS: 100, NK: 1, #2329, AVS: 5, 164: 66, 67

Todo list

■ diseases caused by wind. Don't use modern interpretative terminology. But what you can do is have that discussion about terminology in a footnote or in your introductory remarks. . . .	44
■ subject-verb-object	44
■ Don't put guesses in the main text. Footnote them.	44
■ Cf. Arthaśāstra 1.21.8.	50
■ I'm still unhappy about this verse.	53
■ Mention this in the introduction as an example of the scribe knowing the vulgate.	53
■ fn about sadyas+	53
■ Bear's bile instead of deer's bile.	54
■ punarṇavā in the N & K MSS	55
■ śrita for śṛta	55
■ explain more	55
■ Medical difference from Sharma.	56
■ example where the vulgate clarifies that these should be used separately; appears to be a gloss inserted into the vulgate text. . . .	56
■ The two uses of prāpta are hard to translate. prāptāḥ → kṣipraṃ is an example of the vulgate banalizing the Sanskrit text to make sense of a difficult passage.	56
■ √ vyadh not √ vedh (also elsewhere and for the ears), causative optative.	56
■ opposite of the vulgate Same as 1.8.89 (As 1980: 79).	57
■ -> ativiṣa	65
■ Look up the ca. reference.	65
■ Come back to the issue of "kalpa". Look up passages in the Kośa.	72
■ write footnote: don't repeat ativiṣā; vulgate similar to H.	75
■ material corresponds to SS.1.45.205ab, where it describes how alcohol affects the body.	78
■ Or "There are 20 phaṇins and 6 maṇḍalins. The same number are known. There are 13 Rājīmants." Or even, "there are 20 Phaṇins and six of them are Maṇḍalins." Are phaṇins really the same as darvīkaras?	82
■ where is cutting with a knife related to removing bile or phlegm. . . .	84
■ maṣi burned charcoal. Find refs.	84
■ find ref.	90

■ Check out these refs.	91
■ meaning of kalpa	91
■ or a dual?	95

