# estidiyoni A Translation of the New Edition of the Suśrutasamhitā

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#### **Abstract**

The Suśruta Project is producing a new Sanskrit text edition of the Su-śrutasaṃhitā based on the early Nepalese manuscripts. As we gradually transcribe and edit the manuscripts, we are producing this new translation of the classic work.

 $<sup>\,</sup>$  1  $\,$  MS Kathmandu KL 699, MS Kathmandu NAK 1-1079, and MS Kathmandu NAK 5-333.

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## 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, Dalhana, remarked,

In spite of having made the greatest effort, it has been impossible to identify these plants. In the Himalayan regions, Kirātas and Śabaras are able to identify them.<sup>100</sup>

Dalhaṇa 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. Identifications have in many cases been equally impossible for us today.

#### **Translation**

- 1 And now I shall explain what should be known about stationary poisons. 102
- 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  $(k \cdot \bar{s} ira)$ , pith  $(s \bar{a} ra)$ , resin  $(niry \bar{a} sa)$ , the elements  $(dh \bar{a} tu)$ , and the tuber.
- 5 In that context,
  - the eight root-poisons are:

100 After *Suśrutasaṃhitā, kalpasthāna* 2.5 (Su 1938: 564). From the view of Sanskrit authors, Kirāṭas and Śabaras were tribal peoples. The eleventh-century author Bhikṣu Govinda, however, cast his treatise as a dialogue with a Kirāṭa king called Madana

Expected
(Pillay
2010):
Croton
tiglium,
L. = Naepala, Jayapala, kanakaphala, titteriphala
(NL #720);
Calotropis
spp.;
Citrullus
colocynthus (colocynth);
Ricinus
communis
(castor);

- 1. liquorice (*klītaka*)<sup>i</sup>,<sup>103</sup>
- 2. sweet-scented oleander (aśvamāraka)<sup>ii</sup>, <sup>104</sup>
- 3. jequirity  $(gu\tilde{n}j\bar{a})^{iii}$ , <sup>105</sup>
- 4. aconite (subhangurā) iv, 106
- 5. *karaṭā*,<sup>107</sup> and ending with
- 6. leadwort (vidyutśikhā  $\rightarrow$  agni- or rakta-śikhā?)  $^{\rm v}$ ,  $^{\rm 108}$
- 7. 'endless' (ananta)vi, and
- 8. *vijayā*, 109

who was a master of the alchemical art (HIML: IIA, 620).

- 101 See Wujastyk 2003: 80-81.
- 102 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.
- 103 Licorice eaten in excess can be poisonous.
- 104 The roots of sweet-scented oleander are highly toxic, as are most parts of the plant.
- 105 Jequirity does indeed contain 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.
- 106 The plant is usually called just bhangurā without the prefix su-"good."
- This poisonous root cannot at present be identified. Similar-sounding candidates include <code>karkaṭaka</code>, <code>karaghāṭa</code> (emetic nut), and <code>karahāṭa</code>, 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 <code>karaṭa</code> (mn.) with safflower (<code>Carthamus tinctorius</code>, L.), but this plant does not have a poisonous root.
- 108 The roots of both rose and white leadwort are very toxic.
- 109 Meulenbeld (1989: 61, n. 3) argued that our text read 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 this form only started to signify Cannabis sativa L. after the end of the first millennium (Meulenbeld 1989; Wujastyk 2002; McHugh 2021). The Sauśrutanighaṇṭu gives a number of synonyms for vijayā, almost none of which have any poisonous parts (Suvedī and Tīvārī 2000: 5.77, 10.143). But one of them, viṣāṇī (also meṣaśṛṅgī), is sometimes equated with Dolichandrone falcata (DC.) Seemann (Sivarajan and Balachandran 1994: 518), a plant used as an abortifacient and fish poison (Nadkarni 1982a: #862). This identification is tenuous.

Note about Gayī's edition.

i Glycyrrhiza glabra, L.; see AVS 3.84, NK #1136

ii Nerium oleander, L.; see ADPS 223, NK #1709

iii Abrus precatorius, L.; see AVS 1.10, NK #6, Potter 168

iv  $\rightarrow$  bhangura = ativiṣā? Aconitum ferox, Wall. ex Ser.; see NK #38

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

vi ?; see ?

- the leaf-poisons include:
  - 'poison-leaf' (*viṣapatrikā*)<sup>vii</sup>,
  - 'drum-giver' (lambaradā) viii,
  - thorn apple (karambha)ix, and
  - 'big thorn apple' (mahākarambha)<sup>x</sup>;
- the fruits of items like: jequirity  $(gu\tilde{n}j\bar{a})^{xi}$ , rūṣkara  $()^{xii}$ , viṣa  $()^{xiii}$ , and vedikā  $()^{xiv}$ , are
  - kumudavati (kumadavati)<sup>xv</sup>,
  - renuka (?)<sup>xvi</sup>,
  - kurūkaka (?)xvii,
  - 'little bamboo' (venuka)<sup>xviii</sup>, 110
  - thorn apple (karambha)<sup>xix</sup>,
  - 'big thorn apple' (mahākarambha)<sup>xx</sup>,
  - 'pleaser' (nandanā) xxi,
  - 'crow' (kāka)<sup>xxii</sup>,
- the flower-poisons include those of:
  - rattan (vetra) xxiii,

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110 Not poisonous.
vii unknown; see?
viii unknown; see?
ix Datura metel, L.; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f.,
    ADPS 132.
    Datura metel, L.?; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f.,
    ADPS 132.
χi
    ; see
xii ; see
xiii; see
xiv; see
xv unknown; see?
xvi ?; see Piper aurantiacum Wall. (NK: #1924) is not poisonous.
xvii?; see?
xviiiBambusa bambos, Druce?; see NK #307
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?; see?
xxii?; see?
xxiiiCalamus rotang, L.; see AVS 1.330, NK #413
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- wild chinchona (*kādamba*)<sup>xxiv</sup>,
- black pepper  $(vall\bar{\imath}ja \rightarrow marica)^{xxv}$ ,
- thorn apple (*karambha*)<sup>xxvi</sup>, and
- big thorn apple (mahākarambha)\*\*xvii;
- the seven bark, pith  $(s\bar{a}ra)$  and resin  $(niry\bar{a}sa)$  poisons are:
  - 'gutboiler' (antrapācaka) xxviii,
  - 'blade' (kartarīya)<sup>xxix</sup>,

#988, IGP 457b

- wild mustard (saurīyaka) xxx,
- emetic nut  $(karagh\bar{a}ta \rightarrow karah\bar{a}ta? \rightarrow madana)^{xxxi}$ ,
- thorn apple (karambha)\*\*\*\*ii,
- wild asparagus ( $nandana \rightarrow bahuputr\bar{a}$ ?) $^{xxxiii}$ , and
- munj grass (nārācaka)<sup>xxxiv</sup>;<sup>111</sup>
- the three milky sap  $(k \bar{s} \bar{t} r a)$ -poisons are:
  - purple calotropis ( $kumudaghn\bar{i} \rightarrow arka?$ ) $^{xxxv}$ , $^{112}$
  - oleander spurge (*snuhī*)<sup>xxxvi</sup>, and

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xxivAnthocephalus cadamba, Miq.; see NK #204
xxv Piper nigrum, L.?; see NK #1929; Rā.6.115, Dha.4.85, Dha.2.88
xxviDatura metel, L.; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f.,
   ADPS 132.
xxviDatura metel, L.?; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f.,
   ADPS 132.
xxviiinknown; see?
xxixunknown; see?
xxx Cleome viscosa, L.? (cf. Rā.4.144); see AVS 2.116, NK #615
xxxiRandia dumetorum, Lamk.; see NK #2091
xxxiDatura metel, L.; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f.,
   ADPS 132.
xxxiAsparagus racemosus, Willd.; see ADPS 441, AVS 1.218, NK #264, IGP 103, IMP
    4.2499ff., Dymock 482ff.
xxxiSaccharum bengalense, Retz.?; see NK #2184
xxxvCalotropis gigantea, (L.) R. Br.; see ADPS 52, AVS 1.341, NK #427, Potter 63
xxx/Euphorbia neriifolia, L., or E. antiquorum, L.; see ADPS 448, AVS (2.388), 3.1, NK
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<sup>111</sup> The bark of wild asparagus (*Asparagus racemosus*, Willd.) is toxic.

<sup>112</sup> The name of this poison, <code>kumuda-ghnī</code>, means 'lotus killer'. In Sanskrit literature, the <code>kumuda</code> 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, <code>arka</code>, is also the name of <code>Calotropis gigantea</code>, which indeed has a milky juice which is a violent purgative, poison and abortifacient.

- 'web-milk' (jālakṣīri) xxxvii;
- the two element  $(dh\bar{a}tu)$ -poisons are:
  - 'foam-stone' (phenāśma) xxxviii, and
  - orpiment (haritāla) xxxix; i13
- the thirteen tuber-poisons are:
  - jequirity (*kālakūţa*)<sup>xl</sup>,<sup>114</sup>
  - wolfsbane (vatsanābha)<sup>xli</sup>,
  - Indian mustard (sarṣapa) xlii
  - leadwort  $(p\bar{a}laka \rightarrow citraka)^{\times liii}$ ,
  - 'muddy' (kardama) xliv, the
  - 'Virāṭa's plant' (vairāṭaka)xlv,
  - nutgrass (*mustaka*)<sup>xlvi</sup>,
  - atis root (śṛṅgīviṣa)<sup>xlvii</sup>,
  - sacred lotus (prapundarīka) xlviii,

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

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xxxuinknown; see ?
xxxuinknown; see ?
xxxiinknown; see ?
xxxiinknown; see ?
xxxiinknown; see ?
xxxiinknown; see NK v. 2, p. 20 ff.
xl Abrus precatorius, L.? Cf. RRS 21.14.; see AVS 1.10, NK #6, Potter 168.
xli Aconitum napellus, L.; see AVS 1.47, NK #42, Potter 4 f.
xlii Brassica juncea, Czern. & Coss.; see AVS 1.301, NK #378
xliii Plumbago zeylanica (indica? rosea?), L.; see Rā. 6.124, ADPS 119, NK #1966, 1967
xliv unknown; see ?
xlv unknown; see ?
xlvi Cyperus rotundus, L.; see ADPS 316, AVS 2.296, NK #782
xlviiAconitum heterophyllum, Wall. ex Royle; see AVS 1.42, NK #39
xlviiNelumbo nucifera, Gaertn.; see Dutt 110, NK #1698
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<sup>113</sup> Dutt (1922: 38–42) conjectured that 'foam-stone' may be impure white arsenic obtained by roasting orpiment.

The much later (perhaps sixteenth century) alchemical Rasaratnasamuccaya of pseudo-Vāgbhaṭa (21.14) says that the  $k\bar{a}lak\bar{u}ta$  poison, here translated as 'jequirity', is similar to ' $k\bar{a}kaca\tilde{n}cu$ ' or 'Crow's Beak', which is indeed a name for the plant jequirity or Abrus precatorius, L., more commonly called  $gu\tilde{n}j\bar{a}$  (not to be confused with  $ga\tilde{n}j\bar{a}$ ). 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 ' $k\bar{a}la-k\bar{u}ta$ ', or 'Black Tip'.

- radish (*mūlaka*)<sup>xlix</sup>,
- 'alas, alas' (hālāhala)<sup>1</sup>,
- 'big poison' (mahāviṣa)li, and
- galls (karkaṭa) lii . 115

Thus, there are fifty-five stationary poisons.

6 There are believed to be four kinds of wolfsbane, two kinds of nutgrass, and six kinds of Indian mustard. But the rest are said to be unique types.

#### The effects of poisons

7–10 People should know that root-poisons cause writhing (udvestana), ranting ( $pral\bar{a}pa$ ), and delirium (moha), and leaf-poisons cause yawning, writhing, and wheezing ( $\dot{s}v\bar{a}sa$ ).

Fruit-poisons cause swelling of the scrotum, a burning feeling and writhing. Flower-poisons will cause vomiting, distension ( $\bar{a}dhm\bar{a}na$ ) and sleep ( $sv\bar{a}pa$ ).

The consumption of poisons from bark, pith  $(s\bar{a}ra)$  and resin  $(niry\bar{a}sa)$  will cause foul breath, hoarseness  $(p\bar{a}ru\bar{s}ya)$ , a headache, and a discharge of phlegm (kapha).<sup>116</sup>

The milky sap  $(k \circ \bar{\imath} ra)$ -poisons make one froth at the mouth, cause loose stool, and make the tongue feel heavy. The element  $(dh \bar{\imath} tu)$ -poisons

<sup>115</sup> 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 (\$halahala\$) 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. Agrawala (1963:126) makes the intriguing suggestion that the word \$halahala\$, 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 \$halahil\$ 'deadly (poison)' as a loan from Sanskrit). Mayrhofer 1953–72: iii.585 also cites a claim for an Austro-Asiatic origin for the word.

<sup>116</sup> At 1.2.6 (Su 1938: 11), Dalhaṇa glosses hoarseness (pāruṣya) as vāgrūkṣatā, "a rough, dry voice."

<sup>117</sup> At 6.54.10 (Su 1938: 773), Dalhaṇa glosses loose stool (viḍbheda) as dravapurīṣatā, "having liquid stool."

xlix Raphanus sativus, L.; see NK #2098

l unknown; see Cf. Sodhalanighantu p.43 (sub bola) = stomaka = vatsanābha

li unknown; see?

lii Rhus succedanea, L.; see NK #2136

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  $(k\bar{a}lak\bar{u}ta)^{lii}$ , there is numbness and very severe trembling. With wolfsbane  $(vatsan\bar{a}bha)^{liv}$ , there is rigidity of the neck, and the faeces, and urine become yellow.

With Indian mustard roots  $(s\bar{a}rsapa)^{lv}$ , <sup>118</sup> the wind becomes defective  $(v\bar{a}tavaigunya)$ , there is constipation  $(\bar{a}n\bar{a}ha)$ , and lumps (granthi) start to appear. With leadwort  $(p\bar{a}laka \rightarrow citraka)^{lvi}$ , there is weakness in the neck, and speech gets jumbled. <sup>119</sup>

With the one called 'muddy'  $(kardama)^{lvii}$ , there is a discharge (praseka), the faeces pour out, and the eyes turn yellow. The 'Virāṭa's plant'  $(vairāṭaka)^{lviii}$  causes pain in the body and illness in the head. With nutgrass  $(mustaka)^{lix}$ , one's arms and legs grow stiff, and start to tremble.

- With atis root  $(\dot{s}\dot{r}\dot{n}g\bar{\imath}visa)^{lx}$ , one's limbs grow weak, there is a burning feeling.
- With sacred lotus (*prapuṇḍarīka*)<sup>lxi</sup>, one's eyes go red, and one's belly becomes distended.

<sup>118</sup> *Sārṣapa* would normally mean "connected with mustard," and excessive consumption of mustard oil can be harmful. However, the *Sauśrutanighaṇṭu* (156) gives *rakṣoghnā* as a synonym for *sarṣapā*. This can be *Semecarpus anacardium*, L.f., which has some poisonous parts.

<sup>119</sup> The verse in the Nepalese version ends with a plural verb that does not agree with the dual of the sentence subject.

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

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

lv Brassica juncāea, Czern & Coss.; see AVS 1.301, NK #378

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

lvii unknown; see?

lviii unknown; see?

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

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

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

- With radish  $(m\bar{u}laka)^{lxii}$ es, one is drained of colour, one vomits, one has hiccups, distension, and passes out.
- 17a With 'alas, alas' (hālāhala) lxiii, a man turns reddish black, and starts to gasp.
- With atis root  $(\dot{s}\dot{r}\dot{n}g\bar{\imath}v\dot{\imath}\dot{s}a)^{lxiv}$ , one gets violent knots (granthi) and stabbing pains in the heart.
- 18a With 'monkey' (*markaṭa*) lxv, one leaps up, laughs, and bites.
- Experts said that the thirteen cited highly potent tuber-poisons must be known to have possessed ten features: dry  $(r\bar{u}k\bar{s}a)$ , hot, sharp, rarified  $(s\bar{u}k\bar{s}ma)$ , fast-acting, pervasive, expansive  $(vik\bar{a}sin)$ , limpid (visada), light, and indigestible.
- Because of their dryness they cause inflammation of the wind; their heat inflames the choler and blood. Because of their sharpness they unhinge the mind, and they cut through the connections with the sensitive points (*marman*). Because of being rarified they infiltrate and disconnect the parts of the body. Because they are fast-acting they kill quickly, and because of their pervasiveness they blend with one's physical constitution (*prakṛti*). Because they expand they destroy the humour (*doṣa*)s, element (*dhātu*)s, and the impurities. Because they are limpid they overflow, because they are light they are difficult to cure, and because they are indigestible they are hard to eliminate. And so they cause long suffering.
  - One can be certain that any poison which is instantly lethal, whether it be stationary, mobile, or artificial, will have all ten of these features.

#### Slow-acting poison

A poison, whether it be stationary, mobile, or artificial, which has not completely gone from the body, but which is worn out or damaged by anti-toxic medicine, or else dried up by blazing fire, wind, or sunshine, or which has just lost its virulence by itself, becomes a 'slow-acting poison  $(d\bar{u}\bar{s}\bar{i}vi\bar{s}a)$ '. Because it has lost its potency it is no longer lethal. It is surrounded by phlegm (kapha) and has an aftermath that lasts for years.

lxii Raphanus sativus, L.; see NK #2098

lxiii unknown; see Cf. Sodhalanighantu p.43 (sub bola) = stomaka = vatsanābha

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

lxv unknown; see

- If he is suffering from this, his stools and complexion deteriorate, he gets bad breath and a nasty taste in his mouth, and is very thirsty. He faints, vomits, his speech is slurred, and he is depressed. Also, he has the symptoms of contaminated dropsy (*duṣyodara*).<sup>120</sup>
- 28 If it lodges in his stomach (āmāśaya), his wind and phlegm become diseased; if it lodges in his intestines (pakvāśaya), his wind and choler become diseased. The man's hair and body are ruined, and he looks like a bird whose wings have been chopped off.
- 29a-c If it lodges in one of the body tissue (*dhātu*)s such as the chyle (*rasa*), it causes the diseases that were described as arising from the elements, and it rapidly becomes inflamed on nasty days which are cold and windy.
- Now listen to the preliminary signs of such a case: sleepiness, heaviness, yawning, slackness (viśleṣa) and exhilaration (harṣa), and a chafing of the limbs (aṅgamarda). Next, it causes food-mania (annamada) and indigestion, appetite-loss (arocaka), round blotches (maṇḍala), skin disease (koṭha), and delirium (moha). The body tissues dwindle away (kṣaya), the feet, hands, and face get swollen, dropsy develops, and there is vomiting and diarrhoea. Perhaps his colour may drain away and he may faint or have irregular fever (viṣamajvara). It may cause heightened, powerful thirst.
  - These various disorders are of many different types: one poison may produce madness, while another one may cause constipation  $(\bar{a}n\bar{a}ha)$ , and yet another may deplete the semen. One may cause slurred speech, while another pallid skin disease (kustha).
  - Traditionally, 'slow-acting poison'  $(d\bar{u}s\bar{i}-visa)$  is so called because it corrupts  $(d\bar{u}sayate)$  the body tissue  $(dh\bar{a}tu)s$ . This corruption is caused by repetitively keeping to certain locations, times, foods, and sleeping in the daytime.

#### 34- The stages of slow poisoning

In the first shock of having taken a stationary poison, a person goes a brown colour, his tongue becomes stiff, he grows faint, and starts to gasp.

<sup>120 &#</sup>x27;Contaminated dropsy' (dusyodara or  $d\bar{u}syudara$ ) is described elsewhere as a condition which arises when women of ill-character mix nail clippings, hair, urine, faeces, or menstrual blood with a man's food, in order to gain power over him (2.7.11–13).

- In the second, he trembles, collapses, has a burning feeling, as well as a sore throat. When the poison reaches the stomach ( $\bar{a}m\bar{a}\acute{s}aya$ ), it causes pain in the chest (hrd).
- In the third, the roof of his mouth goes dry, he gets violent shooting pains  $(\hat{sula})$  in the stomach  $(\bar{a}m\bar{a}\hat{s}aya)$ , and his eyes swell up and go a nasty, yellow colour.
- 37 In the fourth shock, it causes the stomach and intestines to sting (toda), he gets hiccups, a cough, a rumbling in the gut (antra), and his head becomes very heavy.
- 38 In the fifth he dribbles phlegm (*kapha*), is drained of colour, his joints crack (*parvabheda*), all his humours are inflamed, and he also has a pain in his belly (*pakvādhāna*).
- 39a In the sixth, his consciousness is annihilated and he completely loses control of his bowels.
- 39b In the seventh, his shoulders, back and loins break, and he is finished.

#### Remedies for the stages of slow poisoning

- 40 In the first shock of the poison, he should vomit and be sprinkled with cold water. Then he should be made to drink an antidote (agada) together with honey and ghee.
- In the second, he should vomit as before, and then be given a purgative to drink.
- In the third, it is good for him to drink an antidote and take a nasal medicine (*nasya*) as well as an eye salve (*añjana*).
- 42a In the fourth, he should drink a medical antidote mixed with oil.
- In the fifth, he should be prescribed the antidote together with a decoction ( $kv\bar{a}tha$ ) of honey and liquorice (madhuka)<sup>lxvi</sup>.
  - In the sixth, the cure is the same as for diarrhoea. And in the seventh, he should have medicated powder blown up his nose, and after having a 'crow's foot ( $k\bar{a}kapada$ )' cut made on his head, he should have a piece of bloody meat put on it.<sup>121</sup>

<sup>121</sup> Suśruta explains the term *avapīḍa* 'medicated nasal powder' as the procedure either of administering nasal drops (*avapīḍa*), or blowing medicated powder into the nose

- In the intervals between each shock, assuming that the above actions have been performed, one should give the patient cold porridge together with ghee and honey, to take away the poison.
- Both kinds of poison are destroyed by a porridge prepared with the stewed juice  $(ni \pm kv \bar{a}tha)$  of the following: luffa  $(ko \pm \bar{a}takya)^{lxvii}$ , migraine tree  $(agnimantha)^{lxviii}$ , velvet-leaf  $(p\bar{a}th\bar{a})^{lxi}$ , 'sun-creeper'  $(s\bar{u}ryavall\bar{\iota} \rightarrow j\bar{\iota}vant\bar{\iota}?)^{lxx}$ , heart-leaved moonseed  $(amrt\bar{a})^{lxxi}$ , myrobalan  $(abhay\bar{a})^{lxxii}$ s, siris  $(sir\bar{\iota}sa)^{lxxii}$ , white siris  $(kinih\bar{\iota})^{lxxi}$ , selu plum  $(selu)^{lxx}$ , white clitoria  $(giry\bar{a}hv\bar{a})^{lxxvi}$ , the two kinds of turmeric  $(ra-jan\bar{\iota})^{lxxvi}$ , the two hogweed  $(punarnav\bar{a})^{lxxvii}$ s (red and white), black cardamom  $(harenu)^{lxxi}$ , the three pungent spices (trikatu) (dried ginger  $(sunth\bar{\iota})^{lxxx}$ , long pepper  $(pippal\bar{\iota})^{lxxxi}$ , and black pepper  $(marica)^{lxxxii}$ ), the two Indian sarsaparillas  $(s\bar{a}rive)$  (country sarsaparilla  $(anant\bar{a})^{lxxxiii}$  and black creeper  $(p\bar{a}lind\bar{\iota})^{lxxxiv}$ ) and country mallow

(4.40.44–46): it is particularly recommended for unconscious or incapable patients. The 'crow's-foot' procedure is also recommended later in the 'Section on Procedures' (5.5.24a) in cases of snake-bite. It is also described by Caraka (see p.?? below).

lxviiLuffa cylindrica, (L.) M. J. Roem. or L. acutangula, (L.) Roxb.; see ADPS 252, NK #1514 etc.

lxviiPremna corymbosa, Rottl.; see IMP 1927, ADPS 21, NK #2025, AVS 4.348; GJM 523: = P. integrifolia/serratifolia, L.

lxix Cissampelos pariera, L.; see ADPS 366, NK #592, GJM 573, IMP 1.95; cf. AVS 2.277

lxx Holostemma ada-kodien, Schultes; see ADPS 195, AVS 3.167, NK #1242, IMP 3.1619

lxxi Tinospora cordifolia, (Willd.) Hook.f. & Thoms.?; see ADPS 38, NK #2472 & 624, Dastur #229

lxxiiTerminalia chebula, Retz.; see ADPS 172, NK #2451, Potter 214

lxxiiAlbizia lebbeck, Benth.; see AVS 1.81, NK #91

lxxiAlbizia procera, (Roxb.) Benth.; see GVDB 98, NK #93

lxxvCordia myxa, L. non Forssk.; see GJM 529 (2), IGP 291b, cf. IMP 3.1677f; cf. AVS 2.180 (C. dichotoma, Forst.f.), NK #672 (C. latifolia, Roxb.)

lxxvClitoria ternatea, L.; see AVS 2.129, NK #621

lxxv@urcuma longa, L.; see ADPS 169, AVS 2.259, NK #750

lxxvBoerhaavia diffusa, L.; see ADPS 387, AVS 1.281, NK #363

lxxixAmomum subulatum, Roxb.?; see PVS Caraka 2.734, AVS 1.128, NK #154

lxxxZingiber officinale, Roscoe.; see ADPS 50, NK #2658, AVS 5.435, IGP 1232

lxxxPiper longum, L.; see ADPS 374, NK #1928

lxxxRiper nigrum, L.; see ADPS 294, NK #1929

lxxxHilemidesmus indicus, (L.) R. Br.; see ADPS 434, AVS 3.141–5, NK #1210

lxxxIvhnocarpus frutescens, (L.) R.Br. or Cryptolepis buchanani, Roemer & Schultes; see AVS 3.141, 3.145, 3.203, NK #1283, #1210, ADPS 434

 $(bal\bar{a})^{lxxxv}$ .

#### 47-49 The 'invincible' ghee

There is a famous ghee called 'Invincible' (ajeya). It rapidly destroys all poisons and 'always conquers'. It is made with a mash (kalka) of the following plants: liquorice (madhuka)\(^{\lambda}\text{xxvi}\), Indian rosebay (tagara)\(^{\lambda}\text{xxvii}\), costus (kuṣṭha)\(^{\lambda}\text{xxviii}\), deodar (bhadradāru)\(^{\lambda}\text{xix}\), black cardamom (hareṇu)\(^{\text{xc}}\text{, Alexandrian laurel (punnāga)\(^{\text{xci}}\text{, cherry }\) (elavāluka)\(^{\text{xcii}}\text{, cobra's saffron }\(^{nagapuṣpa}\text{yaziii}\), water-lily (utpala)\(^{\text{xciv}}\text{, white clitoria }\(^{\text{sitā}}\to \text{\$\text{\$\text{\$\text{\$\text{\$a\$}}\$?}}\)\(^{\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$a\$}}\$?}}\}\)\(^{\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\tex

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lxxxSida cordifolia, L.; see ADPS 71, NK #2297
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lxxx@lycyrrhiza glabra, L.; see AVS 3.84, NK #1136

lxxx**Vai**bernaemontana divaricata (L.) R.Br. ex Roem. & Schultes.; see GJM 557, AVS 5.232 lxxx**Saiii**ssurea costus, Clarke; see NK #2239

lxxx Cedrus deodara, (Roxb.ex D.Don) G. Don; see AVS 41, NK #516

xc Amomum subulatum, Roxb.?; see PVS Caraka 2.734, AVS 1.128, NK #154

xci Calophyllum inophyllum, L.; see AVS 1.338, NK #425

xcii Prunus cerasus, L.?; see BVDB 58, NK #2037

xciiiMesua ferrea, L.; see NK #1595

xcivNymphaea stellata, Willd.; see GJM 528, IGP 790; Dutt 110, NK #1726

xcv Clitoria ternatea, L.; see AVS 2.129, NK #621

xcviEmbelia ribes, Burm. f.; see ADPS 507, AVS 2.368, NK #929, Potter 113

xcviSantalum album, L.; see ADPS 111, NK #2217

xcvi@innamomum tamala, (Buch.-Ham.) Nees; see AVS 2.84, NK #

xcixCallicarpa macrophylla, Vahl.; see AVS 1.334, NK #420

c Cymbopogon martinii (Roxb.) Wats; see AVS 2.285, NK #177

ci Curcuma longa, L.; see ADPS 169, AVS 2.259, NK #750

cii Berberis aristata, DC.; see Dymock 1.65, NK #685, GJM 562, IGP 141

ciii Solanum violaceum, Ortega; see ADPS 100, NK #2329, AVS 5.151

civ Solanum virginianum, L.; see ADPS 100, NK #2329, AVS 5.164

cv Hemidesmus indicus, (L.) R. Br.; see ADPS 434, AVS 3.141-5, NK #1210

cvi Ichnocarpus frutescens, (L.) R.Br. or Cryptolepis buchanani, Roemer & Schultes; see AVS 3.141, 3.145, 3.203, NK #1283, #1210, ADPS 434

beggarweed ( $sthir\bar{a} \rightarrow s\bar{a}laparn\bar{\iota}$ ) cvii, and 'spotted-leaf' ( $sah\bar{a} \rightarrow prsniparn\bar{\iota}$ ) cviii.

### 50-52 Curing the 'slow-acting' poison

suffering from (dūsīvisa) Someone 'slow-acting poison should be well sweated, and purged both top and bottom. Then he should in all cases be made to drink the following antidote which removes 'slow-acting poison':

Take long pepper  $(pippal\bar{\iota})^{cix}$ , rosha grass  $(dhy\bar{a}maka)^{cx}$ , spikenard  $(m\bar{a}ms\bar{\iota})^{cxi}$ , lodh tree  $(s\bar{a}vara \to lodhra)^{cxii}$ , nutgrass  $(paripelava \to plava \to must\bar{a}?)^{cxiii}$ , soda crystals  $(suvarcik\bar{a} \to suvarjik\bar{a})^{cxiv}$ , cardamom  $(s\bar{u}ksmail\bar{a})^{cxv}$ , 'scented pavonia'  $(toya \to b\bar{a}laka)^{cxvi}$ , and 'gold-chalk' ochre (kanakagairika). This antitoxin, taken with honey, eliminates 'slow-acting poison'. It is called 'slow-acting poison antidote  $(d\bar{u}s\bar{i}vis\bar{a}ri)$ ', and there is no situation where it is not recommended.

- 53–54 If there are any side-effect (*upadrava*)s, such as fever, a burning feeling, hiccups, constipation (*ānāha*), depletion of the semen, distension, diarrhoea, fainting, illness in the heart, bellyache (*jaṭhara*), madness, trembling, or others, then one should treat each one in its own terms, as well as using the anti-toxic medicines.
  - 'Slow-acting poison' is curable  $(s\bar{a}dhya)$  if caught immediately; it is treatable  $(y\bar{a}pya)$  if it is of a year's standing; but it cannot

cvii Desmodium gangeticum (L.) DC; see Dymock 1.428, GJM 602, NK #1192; ADPS 382, 414 and AVS 2.319, 4.366 are confusing

cviiiUraria lagopoides, DC; see GJM 577, Dymock 1.426, IMP 1.750ff., NK #2542; ADPS 382, AVS 2.319 4.366 are confusing

cix Piper longum, L.; see ADPS 374, NK #1928

cx Cymbopogon martinii (Roxb.) Wats; see AVS 2.285, NK #177

cxi Nardostachys grandiflora, DC.; see NK #1691

cxii Symplocos racemosa, Roxb.; see ADPS 279, NK #2420

cxiiiCyperus rotundus, L.; see ADPS 316, AVS 2.296, NK #782

cxivSodium carbonate; see NK 2, p. 101

cxv Elettaria cardamomum, Maton; see AVS 2.360, NK #924, Potter 66

cxviPavonia odorata, Willd.; see ADPS 498, NK #1822

be cured in someone who has unhealthy habits or who is weak  $(k \sin a)$ .

Thus ends the second chapter, called 'on the knowledge of stationary poisons', in the Procedures Section of Suśruta's *Compendium*.

#### **Abbreviations**

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# Glossary

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explain more	31
Medical difference from Sharma.	31
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arately; appears to be a gloss inserted into the vulgate text	31
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an example of the vulgate banalizing the Sanskrit text to make	
sense of a difficult passage	32
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optative	32
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find ref	39
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