

The *Suśrutasamhitā* on the Plastic Surgery
of the Ears and Nose:
The Nepalese Recension

Dominik Wujastyk Jason Birch Andrey Klebanov
Madhu K. Parameswaran Madhusudan Rimal
Deepro Chakraborty Harshal Bhatt Vandana Lele
Paras Mehta

Draft of 2023-01-06

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Introduction

The *Compendium of Suśruta* (*Suśrutasaṃhitā*) is amongst the most important treatises on medicine to survive from the ancient world. It has been studied seriously by historians since it first became available in print in the mid-nineteenth century.¹ Meulenbeld listed forty-four editions of the work since the first edition of 1835 by Gupta in Calcutta, and eight translations, starting from the Latin translation of 1844 by Hessler.² Many more translations have appeared in recent decades and reprints of the early twentieth-century editions continue to be reprinted frequently.

The study of this work has yielded rich historical discoveries about the earliest history of surgery, ancient pharmacology, toxicology and many other social and medical topics. Yet there remain fundamental unanswered questions about the history of the text itself and about related issues in the history of medicine in Asia.³

In January 2007, a manuscript of the *Suśrutasaṃhitā* in the Kaiser Library, Kathmandu, previously unknown to contemporary scholarship, was brought to international attention by Dimitrov and Tamot.⁴ MS Kathmandu KL 699 is a Nepalese palm-leaf manuscript covering about two thirds of the Sanskrit text. It is dated to 878 CE, making it one of the earliest dated manuscripts known from South Asia.⁵ The manuscript has been declared by UNESCO to be part of the Memory of the World.⁶

The newly-discovered manuscript in Nepal is related to two other early palm-leaf manuscripts in the National Archives in Kathmandu, MS Kathmandu NAK 5-333 and MS Kathmandu NAK 1-1079. Klebanov has assembled compelling evidence for believing that these Nepalese manuscripts present a version of the text that was in wider circulation in northern India, especially Bengal, in the period up to about 1200 CE.⁷ Generally speaking, the Nepalese version of the *Suśrutasaṃhitā*

1 The edition princeps was that of Gupta (1835–6). A selection of prominent studies includes: Hoernle 1897; 1906a,b; 1907a,b; Strauss 1934; Singhal et al. 1972–82; P. V. Sharma 1975; Rây et al. 1980; R. Adriaensen et al. 1984; Yano 1986; HIML; P. V. Sharma 1999–2001a; Valiathan 2007; and Meulenbeld’s magnum opus HIML.

2 HIML: IB, 311 ff.

3 HIML: IA, 203–389.

4 Dimitrov and Tamot 2007.

5 Harimoto 2011: 87–88.

6 UNESCO 2013.

7 Klebanov 2010; 2021a.

is shorter and sometimes clearer than the versions commented on by Cakrapāṇidatta (*fl.* eleventh century) and Ḍalhaṇa (*fl.* twelfth century). The version of the *Suśrutasaṃhitā* commented on by Ḍalhaṇa has formed the basis of modern printed editions and translations, such as those of Yadavaśarman Trivikramātmaja Ācārya and others.⁸ Some of the changes in the text between the Nepalese version and what we might call the Ḍalhaṇa version, or the vulgate version, consist of the addition and loss of numerous verses, changes to medical recipes, and reordering of chapters, especially in the *Uttaratantra* or last part of the work. Lariviere hypothesized long ago, in a different context, that Sanskrit texts tended to continue to expand through the addition of new materials,

The process of addition to these compilations must have gone on for centuries. The hearers or readers of of these compilations must have known other verses ... and it would be natural for them to include these verses in the compilation. This type of addition may have continued until a commentary on the collection was composed. A commentary would have served to fix the text. and the expansion of the text would have been more difficult after that.⁹

In the case of the *Suśrutasaṃhitā*, the Nepalese manuscripts appear to present us with the last recoverable snapshot of this stage of the work when it was still open to absorbing new materials, most notably the *Uttaratantra*, and before the text was fixed as a result of the authority of the major commentators, Cakrapāṇidatta and Ḍalhaṇa.¹⁰ It is in this sense that we use the expression, “Ḍalhaṇa’s version,” when referring to the vulgate text of the *Suśrutasaṃhitā*.

The present study offers a critical edition and annotated translation of the sixteenth chapter of the *Ślokaśthāna*, the first book of the Nepalese version of the *Suśrutasaṃhitā*.¹¹ This chapter is important in the history of Indian medicine because of its discussion of surgical methods for repairing

⁸ Su 1915; Su 1938; P. V. Sharma 1999–2001b.

⁹ Lariviere 2003: xii, cited with agreement by Olivelle (2005: 51) in the context of legal literature and by Bronkhorst (2016: 62–63) in the context of epic literature. See the latter citation for further discussion of Sanskrit text formation between the empires.

¹⁰ The roles of earlier commentators including Jejjaṭa, Gayadāsa and Candraṭa in closing the text and influencing Cakrapāṇidatta and Ḍalhaṇa remains an open research problem.

¹¹ This book is called the *Sūtrasthāna* in later versions of the *Suśrutasaṃhitā*. Note that

torn ears and severed noses. In addition to discussing the manuscripts and published editions used in this new edition, the introduction of this study addresses some of the challenges of editing the Nepalese manuscripts and the salient differences between the Nepalese version of the *Suśrutasamhitā* 1.16 and the text as known to Cakrapāṇidatta and Ḍalhaṇa. The notes to the edition incorporate alternative readings mentioned by the commentators. The annotations to the translation discuss the following topics: instances where the text is uncertain; non-standard spellings and syntax; the meaning of technical and obscure terms; relevant remarks by the commentators; ambiguities in the identification of medical ingredients, in particular, plant names; and the additional compounds, verses and passages in Ḍalhaṇa's version of the text. In short, this is a pilot study for undertaking a complete edition and translation of the Nepalese version of the *Suśrutasamhitā*.

Importance of SS.1.16 in the History of Medicine

Simple forms of surgery have a long history in South Asia. In works datable to at least 1200 BCE we learn how a reed was used as a catheter to cure urine retention.¹² Cauterization too was described in the same ancient sources, to prevent wounds from bleeding. The *Atharvaveda*, in the early first millennium BCE, described the bones of the human body, showing early anatomical awareness in a religious context.¹³ The Brāhmaṇa literature of the only slightly later period contained more detailed descriptions of animal butchery in the context of religious sacrifice that involved the enumeration of internal organs and bones.¹⁴ This exemplifies an early Sanskrit vocabulary for internal parts of bodies. However, this is not the same as anatomical dissection, whose methods and intentions are quite different. As Keith pointed out long ago, the enumeration of the bones in the *Brāhmaṇas* was derived from correspondences with the numbering of

the *Suśrutasamhitā* itself used the name *Ślokasthāna* at several places, e.g., 6.42.61 (Su 1938: 721), 6.65.30 and 31 (Su 1938: 818), usually referring to identifiable passages in that part of the work. The name is also used in the *Ślokasthāna* itself, at 1.1.40 of the Nepalese version.

¹² Zysk 1985: 70–71.

¹³ Translation by Hoernle (1907b: §43, §100). Further bibliography: HIML: IIB, 819.

¹⁴ Malamoud 1996; Saha 2015.

various verse forms, not from anatomical observation.¹⁵ With the *Suśrutasaṃhitā*, we find ourselves in the presence of something quite different and far more sophisticated from the medical point of view, where the body was studied specifically for medical and surgical purposes.¹⁶ The text gives us a historical window onto a school of professionalised medicine, including surgical practice, that existed almost two millennia ago and which in its day was perhaps the most advanced school of surgery in the world.

The author of the *Suśrutasaṃhitā* described how a surgeon should be trained and how various operations should be done. There are descriptions of ophthalmic couching (the dislodging of the lens of the eye), perineal lithotomy (cutting for stone in the bladder), the removal of arrows and splinters, suturing, the examination of dead human bodies for the study of anatomy, and other procedures.¹⁷ The author of the *Suśrutasaṃhitā* claimed that surgery was the most ancient and most efficacious of the eight branches of medical knowledge.¹⁸ Anecdotal discussion with contemporary surgeons suggests that many details in the descriptions could only have been written by a practising surgeon: it is beyond reasonable doubt that elaborate surgical techniques were a reality amongst those whose practices were recorded in the *Suśrutasaṃhitā*.¹⁹

Torn ear lobes

The *Suśrutasaṃhitā*'s description of the repair of torn ear lobes is unique for its time.²⁰ Majno, a practising surgeon, noted that, "through the habit of stretching their earlobes, the Indians became masters in a branch of surgery

¹⁵ Keith 1908.

¹⁶ Zysk 1986. The *Carakasamhitā* too has brief descriptions of surgical techniques, but the *Suśrutasaṃhitā* goes into greater detail.

¹⁷ Wilson 1823; Mukhopādhyāya 1913; V. Deshpande 2000; Wujastyk 2003; Valiathan 2007; Narayana and Thrigulla 2011 and many other studies.

¹⁸ *Suśrutasaṃhitā* 1.1.15–19 (Su 1938: 4).

¹⁹ Leffler et al. 2020 provide a detailed discussion of the *Suśrutasaṃhitā*'s surgical technique in the case of ophthalmic cataract, with references for further reading. The manuscript account by Jack (1884) provides a fascinating quantitative comparison of traditional couching operations with his contemporary methods (MS London Wellcome 3007).

²⁰ The comprehensive study of ears in the history of Indian culture by Bollée (2010) oddly omits reference to *Suśrutasaṃhitā*'s surgery, although it mentions the text's description of ear diseases.

that Europe ignored for another two thousand years”.²¹ The different types of mutilated ear lobe that the *Suśrutasamhitā* described are not always easy to understand from the Sanskrit: the illustrations supplied in Majno’s text greatly help with the visualization of the most likely scenarios.²²

Rhinoplasty

One of the best-known surgical techniques associated with *Suśrutasamhitā* is rhinoplasty, the repair or rebuilding of a severed nose. The history of this operation has been discussed by Wujastyk, and a translation of the Sanskrit passage from the vulgate edition of the *Suśrutasamhitā* was given.²³ This fascinating technique is certainly old in South Asia, having been witnessed by travellers from Niccolo Manucci in the seventeenth century onwards.²⁴ Many witnesses, including the most famous, Cruso and Findlay,²⁵ described an operation that differs from *Suśrutasamhitā* in that it takes the grafting skin from the forehead, not the cheek. But the nineteenth-century operation witnessed by Thorburn is especially interesting, since the technique followed the *Suśrutasamhitā* exactly in taking flesh from the cheek, rather than the forehead.²⁶

As noted by Meulenbeld, none of the extant commentators – Jejjāta, Gayadāsa, Cakrapāṇi or Ḍalhaṇa – explained the technique in any detail beyond short lexical glosses.²⁷ This suggests that the commentators may not all have known the technique at first-hand.

The skin flap

It is worth highlighting here a point of critical medical importance: the continued attachment of the skin flap. One of the crucial innovations of the

21 Majno 1975: 291.

22 Majno 1975: 290–291; reproduced with permission in Wujastyk 2003: 92–93.

23 Wujastyk 2003: 67–70, 99–100. See also HIML: IB, 327–328, note 186, for further literature and reflections.

24 Manucci 1907–8: v. 2, 301.

25 Longmate 1794: 883, 891 f.

26 Thorburn 1876: 352–353.

27 HIML: IB, 328. Ḍalhaṇa noted cryptically, on 1.16.27–31 (Su 1938: 81a), that a rather different version of the text, cast in *śloka* metre, was also known to him from other sources. Ḍalhaṇa’s variant bears a resemblance to the description of the operation given in printed editions of the *Aṣṭāṅgahṛdayasamhitā* at Utt.18.59–65 (Ah 1939: 841).

“Hindu Method” of nasal reconstruction, as observed and internationally reported in the eighteenth century, was that the skin flap taken from the face remained partially connected to its original location.²⁸ This ensured the blood flow essential to keeping the skin alive while it healed in its new location.²⁹ The Sanskrit of the vulgate is ambiguous on this critical point and the wording of the Nepalese version is unclear. However, Ḍalhaṇa clarified the meaning of the vulgate here by stating that when reading the expression “connected,” one should understand “connected flesh”.³⁰ He thus indicated that he understood the flesh to be connected to the face.³¹ Thus, we cannot know definitively at present whether the connection of the flap was known to the redactors of the Nepalese version, although it seems likely. It was probably known to the redactors of the vulgate, and was certainly known to Ḍalhaṇa in the twelfth century.

Earlier in the chapter, in the context of ear-piercing and repair, the vulgate has a passage that is more explicit and conclusive. After listing the names and characteristics of different types of earlobe, the vulgate cites some summary verses from an unknown source.³² The last of these verses says,

If no lobe exists, an expert may create an ear lobe by scarifying and then using living flesh still attached to the cheek from which it has been sliced.³³

The commentator Ḍalhaṇa was even more explicit in his gloss on this passage:

“Living” [flesh] means “together with blood”.³⁴

Thus, Ḍalhaṇa’s comment gives us unequivocal evidence for the concept of a living skin flap in the twelfth century, and it is almost certain that this

²⁸ See Wujastyk 2003: 67–70.

²⁹ This surgical innovation distinguished the “Hindu Method” from sixteenth-century European methods associated with Gaspar Tagliacozzo and others (see, e.g., Carpue 1816: *passim*).

³⁰ *Suśrutasaṃhitā* 1.16.28 (Su 1938: 81).

³¹ See p. 60 below.

³² 1.16.11–14 (Su 1938: 78).

³³ 1.16.14 (Su 1938: 78): गण्डादुत्पाद्य मांसेन सानुबन्धेन जीवता । कर्णपालीमापालेस्तु कुर्यान्निल्ख्य शास्त्रवित् । Cf. the translation of the whole passage by Wujastyk (2003: 94).

³⁴ 1.16.14 (Su 1938: 78): जीवेति शोणितसहितेनेत्यर्थः ।

is also what the text of the *Suśrutasamhitā* intended by the word “living.” The one remaining historical problem is that these specific verses, 1.16.11–14, are not present in the Nepalese version of the text. That suggests that they were part of a different tradition of practice with a verse literature that was integrated into the vulgate text of the *Suśrutasamhitā* at a time after the Nepalese version as recorded in 878 CE, but at the latest by the time of Ḍalhaṇa in the twelfth century.

If we can assume that the descriptions of ear-surgery and rhinoplasty were part of a single professional tradition of surgical method, then the above passage, in the context of ear-lobe repair, strongly supports the idea that rhinoplastic surgery too was conducted with attention to keeping a living skin flap.

By the late first millennium, had the rhinoplastic technique moved from the professional competence of scholar-physicians (*vaidyas*) to that of barber-surgeons (*Ambaṣṭhas* and others)? Or perhaps the influence was in the other direction, and a technique known to practitioners elsewhere in South Asia in the first millennium was integrated into the text of *Suśrutasamhitā*. The rhinoplastic description consists of only five verses and they are written in the Upendravajrā metre, which is different from the rest of the chapter. The description’s appearance at the very end of the chapter, its terseness, its ornate metre, and the paucity of the commentators’ treatment could all be taken as pointing in this direction.

The Transmission of the Work

The Nepalese Version

In the present article and the other publications of our research group, we focus on the study of what we call the ‘Nepalese version’ of the *Suśrutasaṃhitā*. The primary rationale behind using this designation was outlined by Klebanov,³⁵ but we consider it necessary to reflect upon its meaning here, given the conceptual significance that this term occupies in our research. It is possible that in the course of our research, we will refine our understanding of the phenomenon and, consequently, review and modify our current interpretation.

Put plainly, the ‘Nepalese version’ refers to a hypothetical text-critical reconstruction of the wording of the *Suśrutasaṃhitā* that is based primarily on the evidence of three ancient Nepalese manuscripts that we have briefly introduced above and that we will describe in more detail in a later section. We call these MSS “Nepalese” not just because they were preserved and discovered by modern scholarship in the Kathmandu Valley but also because we believe that they were produced in the same area. We conclude this because all three MSS are written in a specific variety of Indic script which was not used outside of the region.

Furthermore, we speak of a single “version” because these manuscripts attest to a specific line of transmission of the text. That is to say, in terms of stemmatic analysis they share a common ancestor or hyparchetype, while at the same time, they bear no signs of significant contamination. This hypothesis was first postulated by Klebanov (2010) and later reiterated Klebanov (2021b) as the result of a systematic analysis of two complete chapters, SS 1.3 and SS 1.15), as well as several shorter excerpts from the *Suśrutasaṃhitā* transmitted in the Nepalese manuscripts. On the one hand, these studies highlighted that all three MSS preserve a highly uniform text with very few variations, virtually all of which can be explained as standard scribal errors or corrections. On the other hand, Klebanov (2010; 2021b) systematically compared the relevant textual excerpts with four printed editions, alternative readings reported by several commentators, parallel passages in other texts, and with a number of additional manuscripts of the *Suśrutasaṃhitā*. This analysis demonstrated that the text of

³⁵ Klebanov 2021a: 2–3.

the *Suśrutasaṃhitā* supported by the Nepalese MSS of our study differs evidentially from all these other sources. But the mere fact of Nepalese provenance does not guarantee that a manuscript transmits the Nepalese version of the *Suśrutasaṃhitā*. For example, Klebanov also established that in spite of its Nepalese provenance, MS Kathmandu NAK 1-1146,³⁶ does not support the “Nepalese version” and need not be taken into consideration when reconstructing the readings of the latter’s hyparchetype. Thus, we do not feel that it is justified to use the technical term “Nepalese recension,” since at least two recensions of the work are preserved in manuscripts from Nepal. Nevertheless, we wish to indicate the provenance of the oldest witnesses. However, more than two hundred manuscripts of the *Suśrutasaṃhitā* are preserved in different libraries across South Asia and until they have been studied and placed into a stemmatic relationship with our present witnesses, any hard assumption about the regional character of the transmission line remains premature.³⁷ What can be said with certainty is that the Nepalese version preserves many archaic features of an early version of the *Suśrutasaṃhitā* and that some of these features have already been identified in other manuscripts of this work have been studied briefly.

Our research group builds upon the above hypothesis about the existence of a distinct Nepalese version of the *Suśrutasaṃhitā* and concentrates primarily on the study of this text in its own right and, additionally, frequent comparison to the version of the *Suśrutasaṃhitā* promulgated by the late medieval commentator Ḍalhaṇa and recorded in the widely-used *Su* 1938. The present study of SS 1.16 also considers the readings found in *Su* 1939, that reflects Cakrapāṇidatta’s readings, and incorporates various observations made by both medieval commentators, Cakrapāṇidatta and Ḍalhaṇa, into the notes of the edition and some annotations of the translation.

The current study and several earlier publications furnish a catalogue of uniform features that are characteristic of the Nepalese version and set it apart from the vulgate version.³⁸ These features of the Nepalese version include orthographic variants, peculiarities in the structure and structuring

³⁶ Rimal and Wujastyk 2022.

³⁷ For a list of known manuscript copies of the *Suśrutasaṃhitā*, see the sources mentioned in footnote 115 below.

³⁸ Earlier publications include Harimoto 2011; Wujastyk 2013b; Birch, Wujastyk, Klebanov, Parameswaran, et al. 2021; Birch, Wujastyk, Klebanov, Rimal, et al. 2021.

elements, as well as the actual wording of the text. As argued elsewhere in this article, many of these variants appear to represent an archaic version of the *Suśrutasaṃhitā*. This is partly because they preserve a version of the text that appears to be less edited, that is, slightly more idiosyncratic and original in expression, that in turn suggests that it precedes later editorial intervention, according to the principle of *lectio difficilior potior*. We also assign a high historical value to many Nepalese readings because they constitute an internally more consistent and coherent text that is at times further supported by external testimonia.

Additionally, we want to make it clear that we do not think that the Nepalese version provides a so-called original text of the *Suśrutasaṃhitā*. Rather, the Nepalese version is a witness to a hyparchetype, not the archetype, of the *Suśrutasaṃhitā*. The Nepalese version provide us with an intermediary node in the history of this work between the oldest reconstructable text and the vulgate version that was known to Ḍalhaṇa in the twelfth century and that is reproduced in most printed editions of the . The oldest reconstructable text will only come into focus when all surviving witnesses for the work have been studied. Having said that, our belief is that the Nepalese version is certain to be closer to the oldest reconstructable text than are contemporary printed versions of the work. One of the reasons for this belief is simply that the Nepalese MSS give us physical evidence for the state of the work in the ninth century, which cannot be many centuries later than the original assembly of the work in the form we are familiar with, i.e., a work of five topical sections with a large added sixth section, the Uttaratantra, that has a somewhat independent character.

To summarize: the evidence arising from our studies to this point leads us to think that the Nepalese MSS of this study provide access to single line of textual transmission that goes back to a hyparchetype that predates the composition of all major commentaries on the *Suśrutasaṃhitā* and that, due to its regional character, has suffered relatively little contamination. We term this hyparchetype the “Nepalese version.”

The Versions of Cakrapāṇidatta and Ḍalhaṇa

The commentaries of Cakrapāṇidatta and Ḍalhaṇa, titled *Bhānumatī* and *Nibandhasaṅgraha* respectively, are based on similar but not identical versions of the *Suśrutasaṃhitā*. Both versions differ significantly from the

Nepalese version.³⁹ Ḍalhaṇa was aware of Cakrapāṇidatta's work and reiterated many of his predecessor's remarks, so the interpretation of the root text by these two commentators is, broadly speaking, consistent.⁴⁰ Ḍalhaṇa also had several manuscripts of the *Suśrutasamhitā* available to him, as we know because he frequently mentioned their variant readings.⁴¹

In addition to the fine-grained issues raised by the relationship between these commentators, there are added issues introduced by the way the editors of the printed versions of these commentaries handled the texts. The most obvious difficulty is that Y. T. Ācārya and N. Śarman's text of the *Sūtrasthāna* as commented on by Cakrapāṇidatta (Su 1939) simply duplicated the main text of that section from Y. T. Ācārya and N. R. Ācārya's edition of Ḍalhaṇa's commentary (Su 1938).⁴² This duplication of the root text in the two books creates the entirely misleading impression that both commentators had the same *Suśrutasamhitā* text before them.⁴³ However, there is much evidence, including in the chapter treated in the present study, that this was not the case.

To give a concrete example, Ḍalhaṇa commented on four verses, SS 1.16.11–14, as part of his root text, that Cakrapāṇidatta cited separately only in his commentary.⁴⁴ Cakrapāṇidatta had introduced each verse with “some people say” (केचित्पठन्ति). This clearly indicated that these verses

39 See HIML:IA 374–379 on these authors. Meulenbeld already noted that “the text of the *Suśrutasamhitā* in the [1939] edition of the *Bhānumatī* differs at many places from the text of the [vulgate edition of 1938]” and gave examples from the *sūtrasthāna* (HIML:IB, 496, note 76).

40 HIML:IB, 499, n. 162.

41 See HIML:IA, 377. Meulenbeld drew attention to Ḍalhaṇa's commentary on 5.8.24cd–25ab (Su 1938: 587) as a particularly striking example of such awareness (HIML:IB, 497, n. 112). In this passage, Ḍalhaṇa noted that certain readings known to the earlier commentators Jejjāṭa and Gayadāsa were, “not to be found in current manuscripts” (स च वर्तमानपुस्तकेषु न दृश्यते).

42 There are a few exceptions where Cakrapāṇidatta glossed a word or compound that is different to the one glossed by Ḍalhaṇa. For example, in SS 1.16.18, Cakrapāṇidatta glossed राजसर्षप whereas Ḍalhaṇa glossed गौरसर्षप. The editors reflected this in the root texts of the *Bhānumatī* (Su 1939: 130) and *Nibandhasaṅgraha* (Su 1938: 79) respectively.

43 A similar situation exists with the edition of the *Yogasūtravivaraṇa* by Rama Sastri and Krishnamurthi Sastri (1952) that is printed with the base text of the *Pātañjalayogaśāstra* taken the edition of Āgāśe and Āpāte (1904) which is significantly different from that on which Śaṅkara was commenting (Maas 2013: 77–78).

44 Su 1938: 78 and Su 1939: 128–129 respectively.

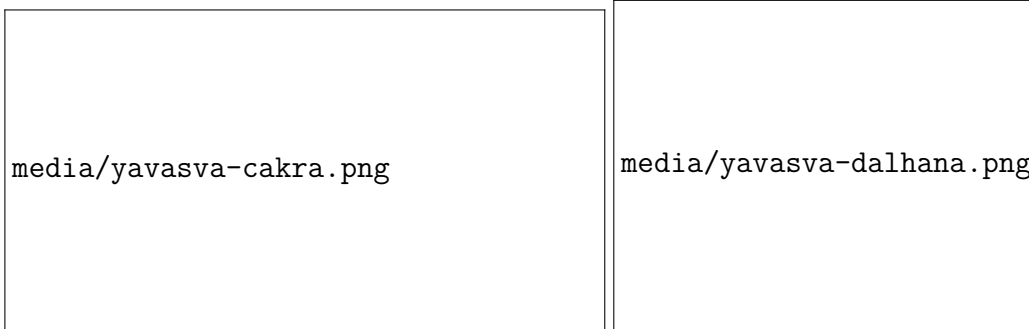


Figure 1: The text as it appears in Cakrapāṇi (left) and Ḍalhaṇa (right) (Su 1939: 130, Su 1938: 79).

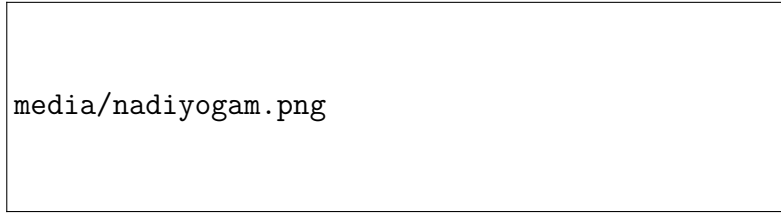
were not in the version of the *Suśrutasamhitā* upon which he was commenting. But a century or so later they had become part of the main text that was read by Ḍalhaṇa. In spite of this, the editors Y. T. Ācārya and N. Śarman included these verses in their 1939 edition of the *Suśrutasamhitā* with Cakrapāṇidatta's commentary as if they had been part of the main text of the *Suśrutasamhitā* that Cakrapāṇidatta read. Such cases make it hard to maintain clarity about the fact that these two important commentators were responding to different versions of the *Suśrutasamhitā*.

Another example of these issues is the fact that Cakrapāṇidatta did not acknowledge or comment on some verses that appear in what we might call “Ḍalhaṇa's version” of the *Suśrutasamhitā*. This is an *argumentum ex silentio*. After all, it is possible that he may not have remarked on a verse because its meaning was clear. But in some cases, the commentarial convention of citing the first words of a new verse or passage leads us to suspect the absence of a verse in the root text of the *Suśrutasamhitā*.

For example, there is a prose passage at SS 1.16.18 that Cakrapāṇidatta commented on in his *Bhānumatī* (Fig. 1, left).⁴⁵ It is followed by several verses also in the main text of the *Suśrutasamhitā* that elaborate on the content of the prose passage.⁴⁶ Ḍalhaṇa commented on these explanatory verses (Fig. 1, right), citing keywords that show they all formed part of

45 Su 1939: 130, i.e., अथाप्रदुष्टस्याभिवर्धनार्थम् ... निदध्यात्। It is numbered Su.1.16.19 in Ḍalhaṇa's *Nibandhasaṅgraha* (Su 1938: 79).

46 SS 1.16.19–23 in Su 1939, i.e., स्वेदितो ..., यवाश्च ..., तैलं ..., तेषाम् ..., वद्ध



media/nadiyogam.png

Figure 2: *Suśrutasaṃhitā* 1.16.31 in the 1939 printed edition.

the main text of the *Suśrutasaṃhitā* that was before him.⁴⁷ However, Cakrapāṇidatta's older commentary showed no awareness of the first few verses in this group, SS 1.16.19–21ab.⁴⁸ Apparently, they were *not* part of the text of the *Suśrutasaṃhitā* as he knew it. In spite of that, the editors printed these verses in their edition of Cakrapāṇidatta's work as if they were indeed part of the *Suśrutasaṃhitā* known to him. Incidentally, the editors remarked in a footnote that verses 20–21a were not in the Nepalese manuscript that they consulted. This shows that the version of the *Suśrutasaṃhitā* that Cakrapāṇidatta knew is similar to the Nepalese version, at least in this particular case.⁴⁹

A similar instance occurs in the edition of the *Bhānumatī* at SS 1.16.31, where the editors of the 1939 printed edition included a verse in parenthesis that was commented on by Ḍalhaṇa but not by Cakrapāṇidatta (see Fig. 2).⁵⁰ This verse was almost certainly not in the text of the *Suśrutasaṃhitā* known to Cakrapāṇidatta.

The manuscript on which the editors' edition of Cakrapāṇidatta's *Bhānumatī* commentary was mainly based, MS London BL H. T. Colebrooke 908, does not include the root text of the *Suśrutasaṃhitā*.⁵¹ Therefore, it requires a careful reading of the commentary itself to reverse-engineer, as it were, what its author, Cakrapāṇidatta, was seeing

47 1.16.19–23 (Su 1938: 79–80).

48 Su 1939: 130–131.

49 Su 1939: 130, n. 2.

50 The verse begins नाडीयोगं विनौष्ठस्य. It is printed in the vulgate as 1.16.32 (Su 1938: 81), with Ḍalhaṇa's commentary. It is printed in parentheses as 1.16.31 in the edition of the *Bhānumatī* (Su 1939: 133).

51 This observation is based on an examination of the opening passage MS London BL H. T. Colebrooke 908. The MS is described in IOLR: v. 1.5, 928, #2647. The section "The 1939 Edition," on p. 33 below, describes the sources that the editors used for that edition.

in the manuscripts of the *Suśrutasamhitā* that he had before him in the eleventh century. But there is no evidence that they included the verses SS 1.16.19–21ab and 31 that are printed in the [Su 1939](#) edition as if they were present to Cakrapāṇidatta.

Cakrapāṇidatta and the Nepalese version

We have already seen one case where Cakrapāṇidatta’s version of the *Suśrutasamhitā* was more similar to the older Nepalese version than to the later version of Ḍalhaṇa. There is more evidence for this. For example, SS 1.16.5 of the Nepalese version begins with the compound दोषसमुदयात्; Cakrapāṇidatta began his comment on this passage by glossing this very expression. By contrast, Ḍalhaṇa’s version inserted two compounds, क्लिष्टजिह्वाप्रशस्तसूचीव्यधात् and गाढतरवर्तित्वात्, before this.⁵² It appears that Cakrapāṇidatta was not aware of the compounds that Ḍalhaṇa saw in his later version, but was indeed reading a text similar to the Nepalese version.⁵³

If one looks beyond SS 1.16, there are further instances where the Nepalese version and the root text as read by Cakrapāṇidatta have the same reading, but Ḍalhaṇa mentioned it as an alternative that is, “read by others.” For example, the Nepalese version of SS 1.1.22 begins तत्रास्मिञ्छास्त्रे..., which is also the reading commented on by Cakrapāṇidatta.⁵⁴ However, Ḍalhaṇa commented on अस्मिञ्छास्त्रे and stated that “others read तत्रास्मिञ्छास्त्रे”.⁵⁵

Another example is the reading of षष्ठ्या विधानैः in Ḍalhaṇa’s commentary on SS 1.1.8.1 that is not in his main text but that he ascribes to “some others”.⁵⁶ This reading is likely to be derived from the expression षष्ठ्याभिधानैः in the main text of the Nepalese version, and to have been rewritten before Ḍalhaṇa’s time because it was hard to understand.⁵⁷

⁵² 1.16.6 ([Su 1938](#): 77).

⁵³ 1.16.5 ([Su 1939](#): 126–127).

⁵⁴ 1.1.20 (*sic*) ([Su 1939](#): 17).

⁵⁵ 1.1.22 ([Su 1938](#): 5).

⁵⁶ 1.1.8.1 ([Su 1938](#): 3).

⁵⁷ See the discussion by Birch, Wujastyk, Klebanov, Rimal, et al. ([2021](#): 4–5).

Differences between the Nepalese and subsequent versions of SS 1.16

Several differences between the text of the *Suśrutasaṃhitā* as reconstructed on the basis of the Nepalese MSS and as found in its multiple contemporary printed editions have already been pointed out in previous publications. For example, Klebanov listed differences in the chapter sequences as they affect the overall organization and structuring of themes and elements of the text.⁵⁸ Others have explored variations in the frame story of the work as a whole.⁵⁹ Klebanov discussed the interchangeable use of two titles for the first book of the text, namely “*Ślokasthāna*” and “*Sūtrasthāna*.” He also discussed another feature of the Nepalese version, namely the additional colophons found at the end of each book and also at the end of each decade of chapters of the work.⁶⁰

The greater internal coherence of the Nepalese version

In an exemplary investigation of textual variants in the Nepalese version, Harimoto studied the classification of snakes in SS 5.4 and revealed that the Nepalese version preserves a text that is internally more consistent and coherent than the versions of the *Suśrutasaṃhitā* found in different printed sources.⁶¹

Klebanov contributed some further general remarks and examples of substantive differences between the Nepalese and vulgate versions, and provided two more case studies.⁶² The first dealt with the list of skin lesions associated with urinary disease.⁶³ Their signs and pathogenesis are described in the *Nidānasthāna* and their treatment in the *Cikitsāsthāna*.⁶⁴ This list of skin lesions exemplifies a case where the Nepalese version of the *Suśrutasaṃhitā* is internally more coherent than that commented on by Ḍalhaṇa. The incoherence of Ḍalhaṇa’s version was already identified by

58 Klebanov 2021a: 27 f.

59 Wujastyk 2013b; Klebanov 2021a: 28–32; Birch, Wujastyk, Klebanov, Parameswaran, et al. 2021; Birch, Wujastyk, Klebanov, Rimal, et al. 2021: 2–4.

60 Klebanov 2021a: 32–44.

61 Harimoto 2011: 101–104.

62 Klebanov 2021a: 44–55.

63 प्रमेहपिटका in the Nepalese spelling.

64 *Suśrutasaṃhitā* 2.6 (Su 1938: 289–294) and 4.12 (Su 1938: 454–455) respectively.

an earlier commentator, Gayadāsa (fl. ca. 1000), who proposed a textual conjecture that corresponds to the reading of the Nepalese version.⁶⁵

The second case study by Klebanov focussed on the variation in the list of bodily winds (वायु) in SS 3.4.⁶⁶ This discussion too relied upon Gayadāsa's learned remarks. He commented on a version of the *Suśrutasamhitā* corresponding to the Nepalese version and reported an alternative reading and its interpretation preferred by another ancient commentator, Jejjāṭa (fl. ca. 650 – c. 750). It is Jejjāṭa's reading that is known to modern readers of the *Suśrutasamhitā* from the vulgate version of the text.

As the present study demonstrates, many features pertaining to the actual content of the Nepalese version continue to come to light as we proceed with our study of the manuscripts. On the whole, these observations indicate that many features of the Nepalese version of the *Suśrutasamhitā* are likely to go back to an early state of the work that was common to other versions of the compendium. However, there are also textual features, such as the text-structuring colophons concluding every tenth chapter, are likely to have occurred within a local Nepalese transmission of the text and it is unlikely that they will be attested in MSS from other regions, when a study of those is done. When evaluating the Nepalese readings historically, it is necessary to keep in mind that there is plentiful evidence that Ḍalhaṇa's version of the text also included extremely early readings and variants, suggesting that some of the readings accepted by Ḍalhaṇa were ancient, if not original. Each case has to be weighed, and we are not yet in a position to make definitive judgements about the early divergence of textual recensions.

The detailed comparison that follows of 1.16 of the Nepalese version with Ḍalhaṇa's *Nibandhasaṅgraha* unfolded as the chapter was edited. The differences appear to emanate largely from attempts in Ḍalhaṇa's version to standardise, simplify or clarify the language that appears in the Nepalese version, to add and redact information, and introduce changes to recipes and therapies. Examples from 1.16 have been provided to demonstrate these general observations which, we expect, will be supported by a larger survey of the text.

65 MS Kathmandu KL 699 was copied a century or more before Gayadāsa's time, so its version cannot have been influenced by Gayadāsa's innovations or suggestions. The reverse is more likely, although we are still uncertain of whether Gayadāsa was aware of the Nepalese version. Being from Bengal, it is not unlikely that he knew it.

66 Klebanov 2021a.

Transpositions

Figure 3 reveals the extent to which 1.16 of the Nepalese version was redacted to create the one known by Ḍalhaṇa. In this particular case, twenty-seven verses have been added in the vulgate. Eight of these verses (11–14, 21–22ab, 23cd–24, 32) are well integrated with the existing material in so far as they reiterate and elaborate on the content of passages in the Nepalese version. A block of nineteen verses (26.1–19) at the end of this chapter in Ācārya's edition of the *Nibandhasaṅgraha* (Su 1938: 80) was known by Ḍalhaṇa. These verses cover additional diseases of the ear lobes, with their treatment and complications. Although Ḍalhaṇa conceded that some predecessors read them in this chapter, he concludes that they were not composed by sages and, therefore, should not be read. Ācārya probably included these verses because they were in his manuscripts, but Ḍalhaṇa's comments prompted him to place them in parentheses.⁶⁷ Be this as it may, this large block of verses is not present in the Nepalese version.

One can also see in Figure 3 that verses 17 and 18 of the Nepalese version were transposed in the redaction of Ḍalhaṇa's version, where they are numbered 26 and 25 respectively. Although this only occurs once in 1.16, such transposing of verses and even their hemistiches is common in the redaction of other chapters of the *Suśrutasamhitā*.

Apart from the addition of verses, the redacting of the version known to Ḍalhaṇa involved many small, yet sometimes significant, changes that are described below.⁶⁸

Changing Spelling, Sandhi and Syntax

Later commentators like Ḍalhaṇa often made efforts to standardise, simplify or improve the language of the Nepalese version. Such changes in-

67 Ācārya (Su 1938: 80) did not state that these verses were absent in some or all of his manuscripts, which he usually did in a footnote if this was the case. A broader survey of manuscripts would be helpful for establishing whether these verses were part of the transmission of the *Suśrutasamhitā* in other parts of India. For example, they are present in MS Hyderabad Osmania 137-3(b).

68 The present study focusses on the commentary of Ḍalhaṇa, but many of the same investigations could be made with regard to the surviving parts of the other early commentaries. See the discussion below, p. 35.

Nepalese version	Dalhaṇa's version
1	1
–	2
2–9	3–10
–	11–14
10–15	15–20
–	21–22ab
16	22cd–23ab
–	23cd–24
–	25
17	26
–	26.1–19
18	–
19–23	27–31
–	32

Figure 3: A Comparison of verses in 1.16 of the Nepalese and Dalhaṇa's versions.

clude the standardising of spelling,⁶⁹ sandhi,⁷⁰ and verbal forms,⁷¹ as well as interventions to simplify and clarify syntax.⁷² These efforts often involved splitting compounds.⁷³ In some instances, these changes improved

69 For example, पत्ताङ्ग (SS 1.16.21) → पतङ्ग (1.16.29, Su 1938: 81). For more information on this, see footnote 178 to the translation.

70 For example, °हस्तेन ऋजु (SS 1.16.2) → °हस्तेन जु (1.16.3, Su 1938: 76).

71 For example, उन्नामयित्वा (SS 1.16.21) → प्राप्नम्य (1.16.29, Su 1938: 81); अवचूर्णयित (SS 1.16.21) → उपहरेत् (1.16.29, Su 1938: 81).

72 For example, शोणितबहुत्वनिवेदनायां चान्यदेशविद्धमिति जानीयात्। निरुपद्रवता तद्देशविद्धलिङ्गम्। (SS 1.16.3) → शोणितबहुत्वेन वेदनया चान्यदेशविद्धमिति जानीयात्। निरुपद्रवतया तद्देशविद्धम् इति। (1.16.4, Su 1938: 76); आमतैलपरिषेकेणोपचरेत् (SS 1.16.6) → आमतैलेन परिषेचयेत् (1.16.7, Su 1938: 77); सुपरिगृहीतं (SS 1.16.10) → सुपरिगृहीतं च कृत्वा (1.16.15, Su 1938: 78); अनेन (SS 1.16.15) → स्नेहेनैतेन (1.16.20, Su 1938: 79).

73 For example, यदृच्छाविद्धायां सिरायाम् (SS 1.16.4) → यदृच्छया विद्धासु सिरासु (1.16.5, Su 1938: 76); धान्याल्लकपालचूर्णं (SS 1.16.10) → धान्याल्लं कपालचूर्णं (1.16.20, Su 1938: 78).

the grammar,⁷⁴ or altered the meaning.⁷⁵ However, some prefixes of verbal forms,⁷⁶ case endings,⁷⁷ and indeclinables were changed for less apparent reasons.⁷⁸ There is also a tendency to replace uncommon words with generic ones,⁷⁹ add indeclinables,⁸⁰ omit the verb “to be” at the end of sentences,⁸¹ and introduce verses after a prose passage with the phrase भवति चात्र.⁸²

Technical Terms

There is evidence of standardising and altering technical terminology in versions of the *Suśrutasaṃhitā* subsequent the Nepalese one. Two examples of this in *Suśrutasaṃhitā* 1.16 are the terms for “joins” (बन्ध) and “a slice of flesh” (वध्र). The Nepalese version uses three terms for “joining” splits in the ear flaps and the flesh of nose (बन्ध, सन्धान, सन्धि). Redactors of subsequent versions appear to have tried to standardise this terminology by replacing सन्धान and सन्धि with बन्ध in prose passages.⁸³ However, the use of the term सन्धान was retained in verses, perhaps because of the metrical challenges of making such a change or perhaps because the verses had greater traditional authority. Also, the names of joins which incorporate सन्धान and सन्धि remained the same.⁸⁴

74 For example, सुरामण्डक्षीरम् (SS 1.16.10) → सुरामण्डं क्षीरम् (1.16.15, Su 1938: 78).

75 For example, क्षीणाल्पमांसः (SS 1.16.12) → क्षीणोऽल्पमांसः (1.16.17, Su 1938: 79).

76 For example, सम्बर्द्धितः (SS 1.16.8) → विवर्द्धितः (1.16.9, Su 1938: 77); निवेश्य (SS 1.16.10) → सन्निवेश्य (1.16.15, Su 1938: 78); अवबध्य (SS 1.16.10) → च बद्धा (1.16.15, Su 1938: 78).

77 For example, मासे (SS 1.16.2) → मासि (1.16.3, Su 1938: 76).

78 For example, अपि (SS 1.16.13) → वा (1.16.18, Su 1938: 79); च (SS 1.16.16) → तु (1.16.23, Su 1938: 79); तु (SS 1.16.18) → च (1.16.25, Su 1938: 80).

79 For example, ग्रक्षयेत् (SS 1.16.15) → योजयेत् (1.16.20, Su 1938: 79); नद्येत् (SS 1.16.21) → बद्धा (1.16.29, Su 1938: 81).

80 For example, [absent] (SS 1.16.6) → च (1.16.7, Su 1938: 77); [absent] (SS 1.16.10) → तत्र (1.16.15, Su 1938: 78); [absent] (SS 1.16.12) → अपि (1.16.17, Su 1938: 79).

81 The words भवति or भवन्ति are omitted four times in Ḍaḥaṇa’s version (1.16.10 (twice), 1.16.17 and 1.16.18 (Su 1938: 77, 79)).

82 For example, [absent] (SS 1.16.11) → भवति चात्र (1.16.16, Su 1938: 79).

83 For example, पञ्चदशसन्धानाकृतयः (SS 1.16.9) → पञ्चदशबन्धाकृतयः (see 1.16.10 (Su 1938: 77)); दशकर्णसन्धिविकल्पाः (SS 1.16.9) → कर्णबन्धविकल्पाः (see 1.16.10 (Su 1938: 77)).

84 These names are नेमीसन्धानक, कपाटसन्धिक, and अर्धकपाटसन्धिक in SS 1.16.9 (cf. 1.16.10 (Su 1938: 77)).

The Nepalese version contains the rather obscure term वघ्न for the slice of flesh that a surgeon cuts from the cheek in order to construct a new nose.⁸⁵ Modern dictionaries define वघ्न as a leathern strap or a slice of bacon,⁸⁶ the latter of which is more indicative of its meaning in the Nepalese version. This word was written out of subsequent versions,⁸⁷ and it was not mentioned as an alternative reading by either Cakrapāṇidatta or Ḍalhaṇa, which suggests that its use and meaning may not have been known to them. However, वघ्न was used by the author of the *Aṣṭāṅgaḥṛdayasaṃhitā* in the context of rhinoplasty, so it likely to be the correct reading in the Nepalese version.⁸⁸

Augmenting the Text

Apart from adding whole passages and verses (as seen in Figure 3), redactors of subsequent versions augmented the text by expanding existing compounds and inserting new compounds and words. Within the microcosm of 1.16, adjectives and adverbs were inserted to clarify statements,⁸⁹ and phrases added to elaborate on diseases and treatments.⁹⁰ In particular, the characteristics and number of symptoms of a disease, as well as their reasons for arising, tend to increase in subsequent versions. For example, the Nepalese version (SS 1.16.5) said that the wick in a newly pierced ear should be removed because of aggravated humours or a culpable piercing whereas the version known to Ḍalhaṇa (1.16.6 (Su 1938: 77)) included two further reasons, namely, because of piercing with a painful, crooked and unrecommended needle or because of a wick that is too thick.

85 SS 1.16.20 and 23.

86 Apte: 1385; MW: 917.

87 वघ्नम् (SS 1.16.20) → बद्धम् (SS 1.16.28, Su 1938: 81) and तद्वघ्नशेषं (SS 1.16.23) → तद्वघ्नशेषं (SS 1.16.31, Su 1938: 81).

88 Utt.18.62 (Ah 1939: 841). This may suggest some independence between the text of the *Suśrutasamhitā* as transmitted to its direct commentators and as transmitted to Vāgbhaṭa. The word वघ्न is old, occurring, also in the form वघ्न, from the *Atharvaveda* onwards (Mayrhofer 1986–2001: v. 2, 521–522).

89 For example, छिद्रे (1.16.2, Su 1938: 76) → छिद्र आदित्यकरावभासिते (1.16.3, Su 1938: 76); [absent] (1.16.2) → शनैः शनैः (1.16.3); [absent] (SS 1.16.3) → आशु (1.16.5, Su 1938: 77).

90 For example, घात्र्यङ्के (SS 1.16.2) → घात्र्यङ्के कुमारधराङ्के वा (1.16.3); [absent] (SS 1.16.2) → बालक्रीडनकैः प्रलोभ्य (1.16.3); [absent] (SS 1.16.3) → पिचुर्वर्ति प्रवेशयेत् (1.16.5).

Some of the split ear flaps in Ḍalhaṇa's version have additional characteristics,⁹¹ and a list of four symptoms associated with incurable joins in the Nepalese version (SS 1.16.19) was increased to six in Ḍalhaṇa's version (1.16.10 (Su 1938: 77)). Also, models of classifying symptoms were introduced in subsequent versions. For example, the Nepalese version (SS 1.16.4) lists the symptoms of mistakenly piercing a duct in the ear whereas the version known to Ḍalhaṇa (1.16.5, Su 1938: 76–77) classifies these symptoms according to three ducts called कालिका, मर्मरिका and लोहितिका, which results in some repetition of the symptoms mentioned.⁹²

Transposing Words, Verses and Passages

A close comparison of the Nepalese version with the vulgate reveals changes in the order of words, sentences and verses. Examples of such transpositions occur in SS 1.16. In most cases, the changes in word order are insignificant and may be result of different preferences in syntax or even scribal eye-brain-hand miscommunication.⁹³ However, the transposition of verses and passages is usually the result of efforts at redacting the text to add new material. A good example of this is the transposition of SS 1.16.17 and SS 1.16.18 in the Nepalese version to 1.16.26 and 1.16.25, respectively, in Ḍalhaṇa's. It seems that this transposition may have resulted from the insertion of new verses 1.16.23cd–24 and 1.16.26.1–19 in the latter.

91 For example, पीठोपमपालिर्निर्वेधिमः (1.16.9, Su 1938: 77) → पीठोपमपालिरुभयतः क्षीणपुत्रिकाश्रितो निर्वेधिमः (1.16.10, Su 1938: 77); इतराल्पपालिः संक्षिप्तः (SS 1.16.9) → उत्सन्नपालिरितराल्पपालिः संक्षिप्तः (1.16.10); तनुविषमपालिः (SS 1.16.9) → तनुविषमाल्पपालिः (1.16.10).

92 In Ḍalhaṇa's version (1.16.5, Su 1938: 76–77), the symptoms of fever and pain (ज्वर, वेदना) are repeated. This repetition does not occur in the Nepalese version. It is possible that this classification was not in the version of the *Suśrutasamhitā* known to Cakrapāṇidatta (1.16.4, Su 1939: 126) because he mentions that some read classifications of ducts at this point in the text and he cites verses from Bhoja on कालिका, मर्मरिका and लोहितिका, but he does not gloss or comment on the passage known to Ḍalhaṇa.

93 For example, अणुस्थूलं (SS 1.16.9) → स्थूलाणुं (1.16.10, Su 1938: 77); तत्रैते दशकर्णं (SS 1.16.9) → तत्र दशैते कर्णं (1.16.10, Su 1938: 77); नातिगाढन्नातिशिथिलं सूत्रेणावबध्य (SS 1.16.9) → सूत्रेणानवगाढमनतिशिथिलं च बद्धा (1.16.10, Su 1938: 77); पूर्वन्दक्षिणं कुमारस्य वामङ्गन्यायाः । प्रतनुं सूच्या बहलमारया (SS 1.16.2) → प्रतनुकं सूच्या बहलमारया । पूर्व दक्षिणं कुमारस्य वामङ्गन्यायाः (1.16.3, Su 1938: 76).

Redacting Recipes and Elaborating on Treatments

Some of the additional text in subsequent versions of the *Suśrutasamhitā* introduces new ingredients in recipes and different procedures in treatments. In many instances, the new material merely clarifies or elaborates on the original but sometimes it changes the recipe or treatment significantly. An example of a suppletion that clarifies the text of the Nepalese version can be seen in 1.16.3 of Ḍalhaṇa's version (Su 1938: 76), which contains a statement that the physician should insert a wick of cotton after the ear has been pierced.⁹⁴ This statement anticipates the instructions in the the Nepalese version (SS 1.16.5–6) on removing the wick because of aggravated humours and replacing the wick with a thicker one every three days. In this case, the additional statement of Ḍalhaṇa's version elucidates the role of the wick in the procedure of piercing the ear.

A similar clarification occurs in Ḍalhaṇa's version at 1.16.18 (Su 1938: 70),⁹⁵ which reiterates the cure for an ear tainted by a humour that was described earlier in 1.16.7.⁹⁶ The reiteration is quite apt because it follows a passage that outlines the various symptoms of ear disease arising from each of the three humours.⁹⁷ The author of the Nepalese version probably assumed that, after reading SS 1.16.12, the reader would refer back to SS 1.16.6 for the cure of an ear affected by a humour. However, in Ḍalhaṇa's version, the treatment is reiterated.

In Ḍalhaṇa's version of 1.16, there are two instances in which ingredients were added to recipes of medicines in the Nepalese version. The first is the recipe of an ointment that should be applied to a pierced ear that has not healed. In Ḍalhaṇa's version, the recipe was rewritten to include sesame seeds.⁹⁸ A more significant change occurs in another recipe for an admixture of an oil that is supposed to be rubbed into a healthy ear to enlarge it. Ḍalhaṇa's version of the admixture has five additional ingredients, namely, *prickly chaff-flower*, *Withania*, *milk-white*, *sweet plants* and

94 For example, [absent] (SS 1.16.2) → पिचुवर्ति प्रवेशयेत् (1.16.3, Su 1938: 76).

95 Corresponding to SS 1.16.13 in the Nepalese version, lines 50–51 of the edition.

96 SS 1.16.6 in the Nepalese version, lines 13–14 of the edition.

97 Ḍalhaṇa 1.16.17 (Su 1938: 79), corresponding to Nepalese SS 1.16.12, lines 46–49 of the edition.

98 Nepalese version SS 1.16.5 (lines 11–12): यवमधुकमञ्जिष्ठागन्धर्वहस्तमूलैर्मधुघृतप्रगाढैरालेपयेत् which become, in Ḍalhaṇa 1.16.7 (Su 1938: 77): मधुकैरण्डमूलमञ्जिष्ठावतिलकल्कैर्मधुघृतप्रगाढैरालेपयेत्.

Indian ipecac.⁹⁹ It also has beggarweed instead of Indian kudzu.¹⁰⁰

The general tendency in redacting a recipe from the Nepalese version was to preserve most ingredients of the original and to add new ones.

Comparative therapeutics

For at least two reasons, it is interesting to compare the text materials of the *Suśrutasamhitā* 1.16 with parallel materials found in other texts, including the *Carakasamhitā*, the *Aṣṭāṅgasanġraha*, and the *Aṣṭāṅgahrdayasamhitā*. The latter two works, both ascribed to Vāgbhaṭa, can safely be dated to a period after the composition of the *Suśrutasamhitā* but before the commentator Ḍalhaṇa, thus throwing light on a period of development for which witnesses are limited and also also broadly the period at which the Nepalese version was current. Secondly, the manner in which Vāgbhaṭa's works incorporate and modify materials from the *Suśrutasamhitā* can help us to understand how recipes and therapies evolved within specific lines of textual transmission.

The materials presented in *Suśrutasamhitā* 1.16 are parallel to those in two chapters of the *Aṣṭāṅgasanġraha*, namely Uttarasthāna, chapters 1 and 22, titled “*bālopacaraṇīya*” and “*karnarogapratīṣedha*,” and *Aṣṭāṅgahrdayasamhitā*, Uttarasthāna 1 and 18 with the same chapter names.¹⁰¹

First, let us take up the end of passage 2 (line 6) in the edition of the Nepalese version below, corresponding to SS 1.16.3 (Su 1938: 76) in Ḍalhaṇa's version. The Nepalese version says nothing, while Ḍalhaṇa's version says “one should insert a cloth wick” (पिचुवर्ति प्रवेशयेत्). A little later, both versions say, “one should remove the wick”.¹⁰² It seems likely that the editor of Ḍalhaṇa's version added the initial phrase about inserting the wick because it seemed necessary to say that the wick was applied before being removed. The older Nepalese version seems slightly less coherent on this point, but is perhaps represents an earlier recension

99 Ḍalhaṇa's version 1.16.7 (Su 1938: 77).

100 Nepalese version SS 1.16.14 (lines 52–54): अर्कालर्कबलातिबलानन्ताविदारीमधुकजलशूकप्रतिवाप-
नैलम्पाचयित्वा which become, in Ḍalhaṇa 1.16.19 (Su 1938: 79): अर्कालर्कबलातिबलानन्तापा-
मार्गाश्वगन्धाविदारिगन्धाक्षीरशुक्लाजलशूकमधुरवर्गपयस्याप्रतिवापं तैलम्वा पाचयित्वा.

101 As 1980: 619–629 and 734–744 and Ah 1939: 777–781 and 837–841, respectively.

102 तत्र वर्तिमपहत्य in the Nepalese version (line 11), and the less clear तत्र वर्तिमुपहत्य in Ḍalhaṇa's version (1.16.6 (Su 1938: 77)).

on the principle of *lectio difficilior potior*. Both the *Aṣṭāṅgasaṅgraha* and the *Aṣṭāṅgahrdayasaṃhitā* describe first inserting a thread in the pierced earlobe and subsequently replacing it every third day.¹⁰³ In this respect, they agree with Ḍalhaṇa's version.

Secondly, it is interesting to consider again the recipe prescribed to treat the vitiation of humours in the pierced ear, mentioned above. A slightly modified recipe is found in the *Aṣṭāṅgasaṅgraha* 6.1.63 (*As* 1980: 626), but the same is not present in *Aṣṭāṅgahrdayasaṃhitā*. As pointed out above, Ḍalhaṇa's version adds a paste of sesame seeds (*tilakalka*) to the recipe attested by the Nepalese version. In the parallel version of recipe found in the printed editions of *Aṣṭāṅgasaṅgraha*, honey (मधु) is missing, but ghee (आज्य) is found. However, when checking the manuscripts of the *Aṣṭāṅgasaṅgraha*, one of them,¹⁰⁴ reads आद्यैः instead of आज्यैः (यवैरण्डजटायटीमञ्जिष्ठाज्यैः प्रलेपयेत्). Interestingly, the paste of sesame seeds (*tilakalka*) of Ḍalhaṇa's version is not present in the *Aṣṭāṅgasaṅgraha* and is replaced by *jaṭā*, which is most probably *spikenard*.

Since the paste of sesame seeds (तिलकल्क) is the main differentiating factor between the recipe versions attested by the Nepalese version and Ḍalhaṇa's version, a general review of the contexts its use in the major texts may be enlightening. References for the paste of sesame seeds (तिलकल्क) are found in the

Text	Instances
<i>Carakasamhitā</i>	6
<i>Suśrutasaṃhitā</i>	11
<i>Aṣṭāṅgasaṅgraha</i>	16
<i>Aṣṭāṅgahrdayasaṃhitā</i>	4

Carakasamhitā (6 instances), the *Suśrutasaṃhitā* (11 instances) the *Aṣṭāṅgasaṅgraha* (16 instances) and the *Aṣṭāṅgahrdayasaṃhitā* (4 instances). Among them, references with the combination of the paste of sesame seeds (तिलकल्क), ghee (*ghṛta*) and honey (*madhu*) are not rare either, with four instances each in *Suśrutasaṃhitā* and *Aṣṭāṅgasaṅgraha* and two instances in *Aṣṭāṅgahrdayasaṃhitā*. A combination of the paste of sesame seeds (तिलकल्क), ghee (*ghṛta*) and honey (*madhu*) has also been

103 6.1.58 (*As* 1980: 626) and 6.1.36 (*Ah* 1939: 780) respectively.

104 MS Mumbai, Asiatic Society 162, catalogue no. BD 263/1–6

specifically quoted as a healing recipe (See *Suśrutasamhitā* Sū 11.22ab, *Aṣṭāṅgasanġraha* Sū 38.21 and *Aṣṭāṅgahrdayasamhitā* Sū 30.34).

Another matter of interest is the combination of ghee (*ghṛta*) and honey (*madhu*). We find many instances where this unique combination alone or in combination with other drugs is used in a variety of clinical contexts including those prescribed for the healing of ulcers or surgical wounds.¹⁰⁵

This material evidence points to the general trend from the older Nepalese version of the *Suśrutasamhitā* to the more recent version of Ḍalhaṇa that recipes start with an intact central core of a few drugs, here consisting of ghee (*ghṛta*) and honey (*madhu*), that is transmitted to the later versions of texts but supplemented by later physicians resulting in ever larger recipes in subsequent versions of the text.

¹⁰⁵ for e.g., AS Sū 37.30 for kṣatakaṇṭha and AS Ci 17.22 for healing of the surgical wound in udararoga.

The Printed Editions

The careful survey of printed editions of the *Suśrutasamhitā* by Meulenbeld lists no fewer than 44 entries.¹⁰⁶ These range from the first edition by Madhusūdāna Gupta (1835) to editions in the 1970s. The number of reprints and editions since that time might almost double that number. Translations begin with Hessler’s Latin translation in 1844 and continue up to the present in scores of publications in many languages.¹⁰⁷

The vulgate

The great ayurvedic scholar Yādavaśarman Trivikrama Ācārya produced three successive editions of the *Suśrutasamhitā* with the commentary of Ḍalhaṇa, in 1915, 1931 and 1938. These editions, especially the last, are generally considered the most scholarly and reliable editions of the work, and have been constantly reprinted up to the present day.¹⁰⁸ We refer to the last of these editions as “the vulgate.”

The 1915 edition was based on three manuscripts. The 1931 edition used another seven manuscripts plus two printed editions. For his final 1938 edition, Ācārya used a further three manuscripts.¹⁰⁹ These sources are described as follow, with an overview in Table 1.

The sources of the 1915 edition

- 1 Calcutta, Royal Asiatic Society. Covers the *sūtra*, *nidāna*, *śārīra* and *kalpa sthānas*.
- 2 Jaipur, Pandit Gaṅgādharaḥṭṭaśarman, lecturer at the Royal Sanskrit University. Covers the *cikitsāsthāna* and the *uttaratantra*.
- 3 Bundi, my great friend the royal physician Paṃ. Śrīprasādaśarman. Covers the *uttaratantra*.

¹⁰⁶ HIML: IIB, 311–314.

¹⁰⁷ Zysk 1984: E.g., HIML: IIB, 314–315.

¹⁰⁸ See also the studies of these editions by Klebanov (2021a: §1.2) and Wujastyk (2013b: 143–144).

¹⁰⁹ The following account is paraphrased from Y. T. Ācārya and N. R. Ācārya’s own account of their sources (Su 1938: 22).

The sources of the 1931 edition

- 1 Vārāṇasī, professor of literature, the great Gaurīnāthapāṭhaka. With the *Nibandhasaṅgraha*. Covers the *nidānasthāna* and *uttaratantra*.
- 2 Ahmedabad. My friend Sva. Vā. Vaidya Raṇachoḍalāla Motīlālaśarman. With the *Nibandhasaṅgraha*. Covers the *śārīrasthāna*.
- 3 From the personal library of my great friend Sva. Vā. Vaidya Murārajīśarman. Extremely old. No commentary. Covers the *śārīrasthāna*.
- 4 Puṇe, BORI library. With the *Nibandhasaṅgraha*. Covers the *śārīrasthāna*.¹¹⁰
- 5 Puṇe, BORI library. With the *Nibandhasaṅgraha*. Complete. With some damaged folia.
- 6 Bombay, Asiatic Society. Incomplete.¹¹¹
- 7 Varanasi, the private library of Vaidya Tryambakaśāstrī. Covers the *cikitsāsthāna*. The variant readings of this MS were compiled by Prof.
- 8 A printed edition together with the commentary *Suśrutasandīpanabhāṣya* by Professor Hārāṇacandra Cakravārtti. Complete work. This is the 1910 Calcutta edition numbered “t” by Meulenbeld ([HIML](#): IB, 312).¹¹²
- 9 A printed edition of the first 43 chapters of the *sūtrasthāna*, printed in Bengali script, with the commentaries *Bhānumatī*, *Nibandhasaṅgraha*, edited by Vijayaratnasena and Niśikāntasena. This is the 1886 Calcutta edition numbered “g” by Meulenbeld ([HIML](#): IB, 311).¹¹³

The sources of the 1938 edition

- 1 Gwalior, from the library of my great friend Paṇ. Rāmeśvaraśāstrin Śukla. Covers the *sūtra*, *nidāna*, *śārīra*, *cikitsā* and *kalpasthānas*.

¹¹⁰ Not one of the three MSS of the *śārīrasthāna* described in H. D. Sharma 1939.

¹¹¹ Possibly MS Mumbai AS B.I.3 or MS Mumbai AS B.D.109 (Velankar 1925–30: v. 1, # 212 and 213). But both these have the *Nibandhasaṅgraha*. The first covers only the *śārīrasthāna*; the second may be complete, but Velankar calls it only “disorderly.”

¹¹² Bhaṭṭācārya 1910–7.

¹¹³ Sena et al. 1886–93.

Table 1: The sources of Yādavaśarman T. Ācārya's three editions: manuscript coverage (●) and print coverage (○).

edition source	1915			1931									1938		
	1	2	3	1	2	3	4	5	6	7	8	9	1	2	3
<i>sthāna</i>															
<i>sū.</i>	●							●	?		○	○ [†]	●		●
<i>nī.</i>	●			●				●	?		○		●	●	●
<i>śā.</i>	●				●	●	●	●	?		○		●		●
<i>cī.</i>		●						●	?	●	○		●		● ^{††}
<i>ka.</i>	●							●	?		○		●		
<i>utt.</i>		●	●	●				●	?		○				

† Covers chapters 1–43 only. †† Covers chapters 1–9 only.

- 2 Bikaner, from the library of the Royal Palace, supplied by Paṃ. Candrasekharaśāstrin. Contains the commentary *Nyāyacandrikāpañjikā-vyākhyā* by Gayadāsa. Covers the *nidānasthāna*. This is almost certainly MS Bikaner Anup 4390.¹¹⁴
- 3 Kathmandu, located in the private library of the Royal Guru Hemarāja Śarman. An extremely old palm-leaf manuscript. Readings from this MS were compiled by Paṃ Nityānandaśarman Jośī and sent to Ācārya. Covers from the beginning of the work to the end of the ninth chapter of the *cikitsāsthāna*. The siglum for this manuscript in footnotes was ता for तालपत्रपुस्तके.

Evaluation

Estimates show that there are approximately 230 extant manuscript witnesses for the *Suśrutasaṃhitā*.¹¹⁵ Although many of these manuscripts cover only parts of the whole work, they amount to approximately twenty times the evidence that was used by Ācārya for his vulgate editions.

¹¹⁴ See Dominik Wujastyk, “MS Bīkāner AnupLib 4390.” *Pandit*. <<http://panditproject.org/entity/108068/manuscript>>.

¹¹⁵ This figure is arrived at by summing the MSS mentioned by Raghavan et al. (NCC: v. 39, 373–375) and in the NGMCP. The real figure could be many scores higher. Cf. the overview at Wujastyk et al. 2020..

While the descriptions provided by Ācārya of his source materials seems at first to be moderately comprehensive, Table 1 reveals the underlying paucity of textual sources for these editions. At first, it appears that fifteen manuscripts were consulted. However, we quickly see that two of the sources were other people's printed editions, and one of those covered less than a quarter of the work (no. 9 of 1931). That reduces the manuscript base to 13 manuscripts. Ācārya does not appear to have seen two of the manuscripts at all, having been sent collations prepared for him by others (7 of 1931 and 3 of 1938). Thus, Ācārya's final edition was based on the personal consultation of eleven partial manuscripts. One of them remains unidentified (6 of 1931). Only a single manuscript covers the whole of the *Suśrutasamhitā*, no. 5 of the 1931 edition. Manuscript 1 of 1938 is the next most complete, but it omits the *uttaratantra*, which comprises a third of the work. Manuscript 1 of the 1915 edition is third in size, but it still omits both of the longest chapters, and thus offers less than half the work. For the rest, the evidence is spotty, with each part of the work being supported by only between four and eight manuscripts, excluding the printed editions.

Two sources stand out for their historical importance. The first is no. 3 of 1931, which Ācārya calls "extremely old." It covered the *śārīrasthāna* only, and unfortunately we know nothing of the later history of this manuscript. The second is no. 3 of 1938, which is one of the important Nepalese manuscripts being considered in the present project. Ācārya's remarks and references to Hemarājaśarman's introduction to the *Kāśyapasaṃhitā* allow us to identify this manuscript as MS Kathmandu NAK 5-333.¹¹⁶ The editors of the vulgate, Y. T. Ācārya and N. R. Ācārya, stated that this manuscript covered up to the ninth chapter of the *cikitsāsthāna*, but in fact it covers the whole work.¹¹⁷ Perhaps the editors only received collations for this portion of the manuscript and did not know that it was a witness for the whole work.

¹¹⁶ Su 1938: 22; Hemarāja Śarman 1938: 56–57. Discussed by Klebanov (2021a: §1.1, 2.3). See also HIML: IIB, 25–41; Wujastyk 2003: 161–169.

¹¹⁷ Su 1938: 22.

The 1939 edition

In 1939, Yādavaśarman Trivikrama Ācārya and Nandakiśora Śarman co-edited an edition of the *sūtrasthāna* of the *Suśrutasamhitā* that was published by the Swami Laxmi Ram ayurvedic centre in Jaipur, and printed at the famous Nirṇayasāgara Press in Mumbai (see Fig. 4).¹¹⁸ The text was edited on the basis of the following sources.

For the *Bhānumatī*

1. A printed edition. Covered the *Bhānumatī* up to chapter Su.sū.40. The siglum was मु for मुद्रित.¹¹⁹
2. A manuscript in the India Office Library library provided through the Bhandarkar Oriental Research Institute in Pune.¹²⁰ This manuscript covered the *Bhānumatī* b up to the end of the *sūtrasthāna*. The siglum was ह for हस्तलिखित.¹²¹

For the *Suśrutasamhitā*

1. A palm leaf manuscript from Hemarājaśarman's personal library.¹²² The siglum was ता for ताडपत्र.
2. His own published edition. The siglum was ड for डल्हणसंमतः पाठः.¹²³
3. Hārāṇacandra Cakravartī's published edition with his own commentary.¹²⁴ The siglum was हा.

¹¹⁸ Su 1939. The description of the sources below is based on Yādavaśarman T. Ācārya's remarks in his introduction (pp. 3–4). See also the remarks on this edition by Klebanov (2021b: 7). On the Swami Laxmi Ram centre, see Hofer 2007.

¹¹⁹ Sena et al. 1886–93. The manuscript on which this edition was based is probably in the library of the Calcutta Sanskrit College, and described in H. Sastri and Gui 1895–1917: v. X.1, which is not available to me. See also HIML: IB, 495, n. 57 for mention of this manuscript. The reference at Rama Rao et al. 2005: 217 to CSCL accession number 97 in Bengali script may be this manuscript.

¹²⁰ At this time, manuscripts from Britain were routinely lent to scholars in India and vice versa.

¹²¹ Wujastyk 2021 b; MS London BL H. T. Colebrooke 908 (PanditProject #109978, consulted on July 03, 2021).

¹²² I.e., MS Kathmandu NAK 5-333.

¹²³ Su 1938. It is noteworthy that Ācārya refers to his 1938 edition as representing “the Ḍalhaṇa recension.”

¹²⁴ Bhaṭṭācārya 1910–7.

चरके—“लाभोपायो हि शस्तानां रसादीनां रसायनम्” (च. वि. अ. १ पा. १) । पारिषेध्याद्वाजीकरणतन्त्रम् । अवाजिनं वाजीकुर्वन्ति येन तद्वाजीकरणम् । ‘अन्येषामपि दृश्यते’ (पा. अ. ६।३।१३७) इति वीर्यत्वम् । येन वाऽत्यर्थं स्त्रीषु व्यज्यते तद्वाजीकरणम् । तदुक्तं चरके—“येन नारीषु सामर्थ्यं वाजिवल्लभते नरः । व्रजेचाप्यधिकं येन वाजीकरणमेव तत्” (च. वि. अ. २, पा. ४) इति ॥ ५ ॥

अथास्य प्रत्येकाङ्गलक्षणसमासः—तत्र, शल्यं नाम विविधतृणकाष्ठ-पाषाणपांशुलोहलोष्टास्थिवालनखपूयास्त्रावदुष्टव्रणान्तर्गम्यशल्योद्धरणार्थं षष्ठ्या विधानैः, यन्त्रशस्त्रक्षाराग्निप्रणिधानव्रणविनिश्चयार्थं च; शालाक्यं नामोर्ध्वजत्रुगतानां श्रवणनयनवदनघ्राणादिसंश्रितानां व्याधीनामुपशमनार्थं; कायचिकित्सा नाम सर्वाङ्गसंश्रितानां व्याधीनां ज्वर-रक्तपित्तशोषोन्मादापसारकुष्ठमेहातिसारादीनामुपशमनार्थं; भूत-विद्या नाम देवांसुरगन्धर्वैयक्षरक्षःपितृपिशाचनैराग्राह्यापसृष्टचेतसां शान्तिकर्मबलिहरणादिग्रहोपशमनार्थं; कौमारभृत्यं नाम कुमारभरणधात्रीक्षीरदोषसंशोधनार्थं दुष्टस्तन्यग्रहसमुत्थितानां च व्याधीनामुप-शमनार्थम्; अगदतन्त्रं नाम सर्पकीटलूतामूषकादिदृष्टविषव्यञ्जनार्थं विविधविषैः संयोगोपशमनार्थं च; रसायनतन्त्रं नाम वयःस्थापनमायुर्मै-धाबलंकरणं रोगापहरणसमर्थं च; वाजीकरणतन्त्रं नामाह्वदुष्टक्षीणशु-ष्करेतसामाप्यार्यनप्रसादोपचयजनननिमित्तं प्रहर्षजननार्थं च ॥ ६ ॥

शल्याङ्गविशेषाश्च ज्ञातुं प्रतिलक्षणं संक्षेपेणाह—अथास्येत्यादि । एकमेकमङ्गं प्रति लक्ष-णानां समासः संक्षेपः प्रत्येकाङ्गलक्षणसमासः । तृणादीनां, तथा दुष्टव्रणस्य, तथाऽन्त-र्गत(भैशल्य)स्य उद्धरणार्थमिति प्रत्येकमुद्धरणशब्दः संबध्यते । दुष्टव्रणस्यान्तस्तृणाद्या-हरणार्थमित्यन्ये । षष्ठ्या विधानैरिति द्वित्रिणीयोक्तैरपतर्पणाद्यै रक्षाविधानान्तैः; इत्थंभूतलक्षणे तृतीया । जत्रु ग्रीवामूलं, जत्रुण ऊर्ध्वमूर्ध्वजत्रु । घ्राणादीत्यादिग्रहणाच्छिरःकपालादिग्रह-णम् । उत्तरतन्त्रे प्रतिपादितक्रमग्राह्या ज्वरानन्तरमतीसारः पठितः, तस्यान्ते पाठोऽतिसा-रस्य सर्वाङ्गीणदोषारब्धत्वात्, अन्येषामपि तन्मध्यपाठेन सर्वाङ्गीणदोषारब्धत्वप्रतिपादना-व्यतिक्रमं वदन्ति । शान्तिकर्म बलिहरणादिना ग्रहाणां देवादीनामुपशमो यस्तदर्थः; यदि वा ग्रहणं ग्रहो देवानामावेशस्तदुपशमार्थम् । दुष्टस्तन्यग्रहसमुत्थितानामिति दुष्टस्तन्येन

१ ‘सर्वशरीरावस्थितानां’ व्याधीनामुपशमकरणार्थं, ज्वरशोफयुक्तरक्तपित्तोन्मादापसार-प्रमेहातीसारादीनां च’ इति ता. । २ ‘देवदानव’ इति ता. । ३ ‘विनायकनागग्रहोप-सृष्टचेतसां’ इति ता. । ४ ‘विषवेगोपशमनार्थं’ इति ता. । ५ ‘शुक्राप्यायन’ इति ता. । ६ ‘तृणादीनां शल्यान्तानां’ इति सु. ७ ‘अन्ये तु तस्यान्ते पाठेन’ इति पा० । ८ ‘ग्रहणाद्’ इति सु. ।

Figure 4: A page of the 1939 *Bhānumatī* edition, showing the variant readings in the footnotes.

Evaluation

The main innovation of this publication was to present the only surviving part of the commentary on the *Suśrutasamhitā* by the great eleventh-century medical scholar Cakrapāṇidatta, namely the *Bhānumatī*.¹²⁵ A secondary purpose was to present the text of the *sūtrasthāna* as read in MS Kathmandu NAK 5-333, that had recently been brought to the editors' attention. In their judgement, the Kathmandu manuscript presented a text that was closer to what Cakrapāṇidatta had before him than the text according to Ḍalhaṇa. This was the first *Suśrutasamhitā* edition in which Ācārya used sigla to identify the sources from which variant readings were reported, so while it has limitations, it for the first time enables us to get some idea of origins of the text (see Figure 4).

Ācārya noted in his introduction that the manuscripts containing Ḍalhaṇa's commentary all came together with the root-text of the *Suśrutasamhitā*, and thus the main *Suśrutasamhitā* text reflected the readings chosen by Ḍalhaṇa. But the manuscripts of the *Bhānumatī* contained the commentary alone, without the root-text, and had many explanations based on different readings of the root-text than those of Ḍalhaṇa. In many of these cases it was hard to infer what readings Cakrapāṇidatta had before him. But Ācārya noted that Cakrapāṇidatta had a text before him that had much in common with the text of the Nepalese manuscript.¹²⁶

There is compelling evidence that Cakrapāṇidatta's *Bhānumatī* commentary once covered the whole text of the *Suśrutasamhitā*.¹²⁷ The loss of the rest of the work ranks amongst the greatest disasters in Āyurvedic literature. Remarkably, the whole *Bhānumatī* may still have existed in the early twentieth century. In 1903, Palmyr Cordier reported being privately informed of a complete copy of the work in a personal manuscript collection in Benares.¹²⁸

¹²⁵ HIML: IA, 374–375 and IB, 495–496.

¹²⁶ Su 1939: 3–4. See discussion by Klebanov (2021b: 7).

¹²⁷ HIML: IA, 375.

¹²⁸ Cordier 1903: 332.

media/017r IMG_0065.jpg

Figure 5: Folio 17r of MS Kathmandu Kaiser Library 699.

The Manuscripts

Our edition is based on the textual evidence of three manuscripts. All three were produced in the Kathmandu Valley, Nepal and preserved in libraries there. Klebanov (2021a: §2.1) provided a comprehensive description of the individual manuscripts, quotes and translates their colophons and thoroughly examines various problems involved in their interpretation. That is why we will present only the key data essential for the study of our edition in the present paper. In referring to the manuscripts, we use the sigla K, N and H, which correspond to the initial letters in the names of the libraries and collection where the respective bundles were discovered.

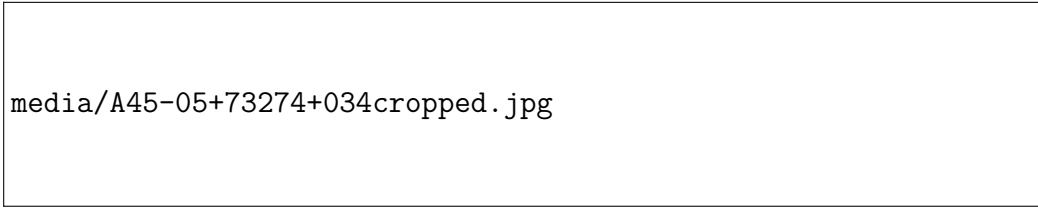
Siglum K (Fig. 5) The MS has been preserved at the Kaiser Shamsheer (KL) library in Kathmandu, accession number KL 699. It was microfilmed and catalogued by the NGMPP/ NGMCP as C 80-7.¹²⁹ The MS comprises 152 palm-leaf folios that originally belonged to several different codicological units written by different scribes.¹³⁰ The folios are 53.5×4.4 cm in size and have two string holes. The text is written in the so-called transitional Gupta script, with six to eight lines per folio.¹³¹ The MS is incomplete and contains a large part of the *Suśrutasaṃhitā* as well as the *Sauśrutanighaṇṭu*.¹³² The date stated in the colophon at the end of the compendium is verified for Sunday, April 13, 878 CE. However, some controversy is involved in interpreting the exact roles of two persons mentioned in the same

¹²⁹ See http://catalogue-old.ngmcp.uni-hamburg.de/mediawiki/index.php/C_80-7_Suśrutasaṃhitā (accessed on October 22, 2021).

¹³⁰ Bhattacharai (2020: 46) and Klebanov (2021a: 11) agree that four to five scribes were involved in the manuscript's production.

¹³¹ Codicological features of the manuscript, such as the layout, peculiarities of the script, various ornamental and text-dividing symbols and many more, were scrutinized in Bhattacharai (2020).

¹³² Klebanov (2021a: 11) provided a detailed description of the content.



media/A45-05+73274+034cropped.jpg

Figure 6: Folios 30r and 30v of MS Kathmandu National Archives 1-1079.

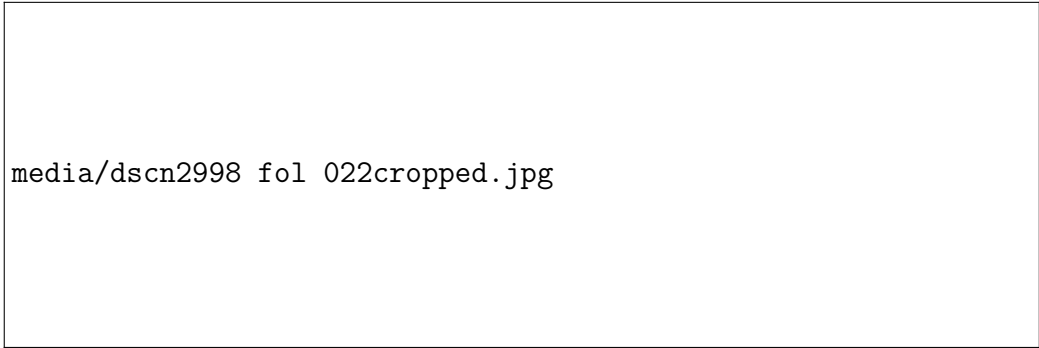
concluding remarks, someone called Śrī Harṣacandra and Vaidya Vasuvarman. Klebanov (2021a: 16) thinks that the former,

...either sponsored the copying enterprise or wrote the manuscript himself, [and that he subsequently] donated it to Vaidya Vasuvarman on the condition that he (Vasuvarman) would study the text and explain it to others. The second condition was that the manuscript should remain in the family and not be given away either for sale or as a pawn. If the manuscript sat unused, it should be returned to Śrī Harṣacandra.¹³³

Siglum N (Fig. 6) This MS is kept at the National Archives Kathmandu (NAK), under accession number 1-1079 ऋ. It was microfilmed twice by the NGMPP as A 45-5(1) and A 1267-11(2).¹³⁴ The MS comprises 65 palm-leaf folios, 56 × 5 cm in size, with two string holes each, and it is bundled together in a composite manuscript with at least one other medical work. The text is written in a variety of Newari script, with ca. seven lines per folio. Although the text contained in the MS does not cover the entire *Suśrutasamhitā* and breaks off abruptly in the second chapter of the *śārīrasthāna*, the actual MS, as a codicological unit, appears complete, that is, no leaf seems to be missing from the originally unitary artefact. Based on paleographic considerations, the MS can be dated tentatively to the twelfth or thirteenth century.

¹³³ Klebanov (2021a: 13–17) gave a translation and study of the colophon, as well as an exposition of different positions related to its interpretation.

¹³⁴ See [http://ngmcp.fdm.uni-hamburg.de/mediawiki/index.php/A_45-5_\(Suśrutasamhitā\)](http://ngmcp.fdm.uni-hamburg.de/mediawiki/index.php/A_45-5_(Suśrutasamhitā)) (accessed on October 22, 2021)/



media/dscn2998 fol 022cropped.jpg

Figure 7: Folios 22v and 23r of MS Kathmandu National Archives 5-333.

Siglum H (Fig. 7) The MS belongs to the historical collection of Hemarāja Śarman (fl. 1878–1953) and is currently kept at the NAK under accession number NAK 5-333. It is microfilmed twice by the NGMPP as B 29-19 and B 30-15, but the latter microfilm is incomplete.¹³⁵ The manuscript comprises 435 palm-leaf folios, 34 × 5 cm in size, with one string-hole in the middle. It is written in a type of Newari script that is more recent than the one used in N, with approximately six lines per folio. The MS is exceptionally well-preserved and complete, containing the text of the *Suśrutasaṃhitā* as well as the *Sauśrutaniḥaṇṭu*. The final colophon identifies the scribe of the MS as Vaidya Amarasimhaka, son of Kamaladatta, and states the date on which he concluded the copying of the text. Both reading, that is, deciphering the actual characters, and interpretation of the concerned passage involve diverging opinions, all of which concur, however, in assigning the MS to the sixteenth century. Klebanov (2021a: 21–26) gives an analytical account of the views expressed in literature, considers further options and puts forward his understanding that the MS was completed on Sunday, July 29, 1543 CE.

In future publications, palaeographical features of these witnesses will be described.

¹³⁵ See http://ngmcp.fdm.uni-hamburg.de/mediawiki/index.php/B_29-19_Suśrutasaṃhitā (accessed on October 22, 2021).

Editorial Principles

Method

The data for the critical edition comes from the witnesses of the Nepalese version, which are MS KL 699, NAK 5-333 and NAK 1-1079. Diplomatic transcriptions of SS.1.16 of these manuscripts have been created by researchers of the [Suśruta Project](#) according to a subset of TEI Guidelines that has been formulated by Charles Li.¹³⁶ MS NAK 5-333 was transcribed first because its script is relatively easy to read, the scans are clear, and it is the most complete of the manuscript witnesses. Following that, MS KL 699 and MS NAK 1-1079 were transcribed.

The diplomatic transcriptions were uploaded to Li's manuscript collation platform Saktumiva, chapter by chapter as they were completed. An electronic edition of the vulgate of the *Suśrutasaṃhitā*, that was transcribed, without the commentaries, by Tsutomu Yamashita and Yasutaka Muroya on the basis of Ācārya's 1931 and 1938 Bombay editions has also been included in the collation.¹³⁷

Saktumiva's collation function standardises punctuation and orthographic variants according to filters which can be turned off or on. These filters enable the editors to ignore दण्ड, numbers and पुष्पिका in the transcripts, as well as orthographic variants, such as ब and व, certain germinated consonants, and विसर्ग variants. On the basis of the automatic collation, Jason Birch created a provisional edition of SS.1.16, which the project's researchers read together at weekly seminars. Manuscript images were routinely checked to verify the transcripts, particularly when a reading was uncertain; the commentaries of Cakrapāṇidatta and Ḍalhaṇa were read, and variant readings reported by these commentators were included in notes to the edition. Also, various reference books were consulted, such as Nadkarni (1954) and V. Jośī and N. H. Jośī (1968) and Meulenbeld ([HIML](#)), to elucidate the meaning of technical terms and identify relevant information in other medical works.

An initial draft of the translation and many annotations were written

¹³⁶ These guidelines are at <https://saktumiva.org/wiki/tei>, accessed 20/10/2021.

¹³⁷ This electronic edition is also available on the SARIT website; <https://sarit.indology.info/susrutasamhita.xml?view=div>, accessed 20/8/2021. The version at Saktumiva has received several corrections and the intention is to merge these back into the SARIT version eventually.

by Wujastyk during the seminars as the Project researchers discussed the text's meaning. The transcripts, provisional edition and translation were uploaded to the project's repository at Github on a weekly basis. Therefore, the project's work has been publicly available as it evolves. The software tools used in the project have been described on the project website.¹³⁸

Stemma

The data from transcripts collated by Saktumiva can be exported as a FASTA file and aligned according to characters, syllables or words by a program called Helayo. The resulting NEXUS file can be read by phylogenetics software to build a stemmatic tree.¹³⁹ This procedure was done with transcripts of several chapters of the Nepalese witnesses, and the results confirmed the editors' provisional stemmatic hypothesis that K and H are more closely related to one another than K and N.¹⁴⁰ Given the early date of K and the small number of other surviving witnesses of the Nepalese version, the relationship between the manuscripts at our disposal is reasonably clear and, in the case of SS.1.16, the manuscript data was largely confined to N and H owing to a missing folio of K. Rather than have to assess numerous variant readings from a large number of witnesses, the challenge of editing has been to repair the text where it has become corrupt in the few witnesses available to us.

The Edition and Apparatus

The critical edition of SS.1.16 in this article retains many of the peculiarities of MS KL 699 because the editors have endeavoured to present to the reader an archetype of the text that was transmitted by this ninth-century manuscript. Therefore, the Sanskrit has been standardised as minimally as possible and, although the text has been corrected and repaired wherever it was corrupt in the witnesses, it has not been normalized or conventionalized to the extent of many modern editions of Sanskrit works.

The editors have assumed that the authors of the Nepalese *Suśrutasaṃhitā* were familiar with Pāṇinian Sanskrit and, although there are some

¹³⁸ <http://sushrutaproject.org>, consulted 15 September 2022.

¹³⁹ This process is discussed in greater detail by Charles Li at <https://chchch.github.io/sanskrit-alignment/docs/index.html#tree>, accessed 21/8/2021.

¹⁴⁰ See section 'Features of the Manuscript Transmission' for further discussion of this.

non-standard spellings and grammatical forms in the text, there are very few instances of hyper-Sanskritization, Buddhist-hybrid Sanskrit or Epic forms that would suggest that this assumption is unreasonable. Therefore, the editors of SS.1.16 have opted to retain some unusual features of the Sanskrit in MS KL 699 when they are grammatically correct. For example, in external *sandhi*, the class nasal is usually used at the end of a word instead of an *anusvāra* (e.g., 1.16.3, °वाचनन्याय्यं), although the *anusvāra* is sometimes used (1.16.15, उदकं धान्याल्लं). In most cases, the consonant following a रेफ is doubled, but this is not always the case.¹⁴¹ Since these inconsistencies seem inherent to the transmission of the text and may have even been authorial, the critical edition reflects them as they occur in K and, when the testimony of K is not available, the witness most similar to K, which is H.

The Nepalese manuscripts often have an *anusvāra* before a दण्ड at the end of a sentence or verse. Whether these *anusvāras* should be changed to the consonant म् is a moot question because there is no Pāṇinian concept of ‘end-of-sentence’ and his rules on *sandhi* are contingent on the close contact of sounds (*saṃhitā*). However, it is reasonable to assume that at the end of a verse, paragraph or sentence the speakers would have paused for breath or thought, so *sandhi* should be applied, in which case a final *anusvāra* or class nasal of the following consonant is changed to म्. Nonetheless, this remains an assumption about how the text would be pronounced. Therefore, in a critical edition, inserting *daṇḍas* and changing *anusvāras* to म् before them are subjective decisions by the editors. The scribal use of *daṇḍas* and *anusvāras* in the Nepalese manuscripts can be seen in the digital edition if one switches off the filters for ignoring *daṇḍas* and final *anusvāra* variants.

Unconventional spellings and grammatical forms have been retained and noted in the annotations to the translation. However, the editors have corrected scribal errors and repaired corruptions in the transmitted text with conjectures wherever possible. Therefore, although the edition retains many of the peculiarities of the Nepalese manuscripts, it is not a diplomatic transcript or a hybrid of diplomatic and critical editing because the features of the transmitted text have been retained or changed deliberately,

¹⁴¹ Examples of the germination of consonants are कर्णं (1.16.1 ff), मुहूर्त्तं (1.16.2), पूर्व (1.16.2), गन्धर्व (1.16.5), °मूलैर् म्मधु (1.16.5), वर्त्ति (1.16.6) and पुनर्विध्येत् (1.16.6). Examples where it does not occur in 1.16 are °आर्थम् (1.16.8,19), कुर्यात् (1.16.16, 32), °पालिर्वल्लूरं (1.16.10); °पालिव्यायोजिमः (1.16.10) and दीर्घेकं (1.16.10).

and the reasons for doing so are given in either the introduction or, in more specific cases, the annotations to the translation.

Printed Edition

The editors intend to produce both printed and digital editions of the Nepalese *Suśrutasaṃhitā*. Since the print and digital environments differ markedly, each edition has its own format. The printed edition of SS.1.16 in this article has four layers of footnotes. The first layer reports the witnesses that have been collated. Line numbers and lemmata have been used to identify the witnesses that have been collated for a particular section of the text, as seen in the following example.

१-७ अथातः – ०विद्धलिङ्गम्] MSS K, H, and N

The above entry means that a textual passage beginning with अथातः on line 1 and ending with ०विद्धलिङ्गम् on line 7 is attested by manuscripts K, H and N. This layer also indicates passages that are missing or omitted in a particular witness.

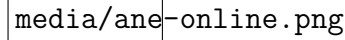
The second layer of footnotes reports the variant readings of the Nepalese witnesses. This apparatus is negative, that is to say, only the testimony of the variant readings have been reported, and not that of the lemma. The following entry is an example of the apparatus' syntax:

५ प्रतनुं] प्रतनू N H

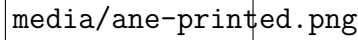
This entry means that on line five of the edition the editors have chosen to read प्रतनुं, instead of प्रतनू, which is attested by witnesses N and H. The reader can infer that प्रतनुं is attested by K because the first layer of footnotes indicate that K has been collated here. In prose passages, the lemmata and variants consist of corresponding words and, in verses, corresponding syllables. Emendations by the editors are indicated by the abbreviation *em.*, and omissions and suppletions in the witnesses are indicated by *om.* and *add.*, respectively. A wavy line under a letter means that it is unclear to the editors. If some text has been deleted by a scribe, it is underscored by double lines, and the scribe's substitution is appended in quotation marks.

There are small notational variations between the online digital edition and the printed edition presented here. For example, a scribal "crow's foot"

mark (काकपद), often indicating a marginal insertion, is displayed as

media/ane-online.png

in the digital edition, and as

media/ane-printed.png

in print.

The third layer of footnotes contains the variant readings of the vulgate, which have been presented in the same format as the second layer. If a reading of the vulgate has been accepted by the editors against different readings in the Nepalese witnesses, the siglum for the vulgate (i.e., A) has been placed next to lemma in the second layer of footnotes.

Various testimonia and notes have been included in the fourth layer of footnotes. The testimonia mainly consists of the variant readings noted by the commentators Cakrapāṇidatta and Ḍalhaṇa. Those known to Gayadāsa may be added in future publications. The notes include brief comments on certain emendations and editorial decisions. More elaborate discussions on such issues have been included in the annotations to the translation.

Digital Edition

Instructions for reading the digital edition have been provided by Li at [Saktumiva](#). In brief, you can generate the apparatus by choosing a base text and one or more of the other witnesses. You can also choose to hide or ignore in varying degrees TEI tags, punctuation and orthographical variants in the transcripts of the witnesses. On the right side of the text, the digital edition displays an apparatus that is negative in so far as the lemma and its witnesses are not included. This apparatus truncates variants wherever possible.

For example, as seen in Figure 8, the apparatus for the words *pratanuṃ sūcyā bahalam ārayā* is on the right side of the display. This entry means that the editors have chosen to read *pratanuṃ*, which the reader must infer is attested by K, whereas A has *tataḥ* and N and H *pratanū*. Witness A has added

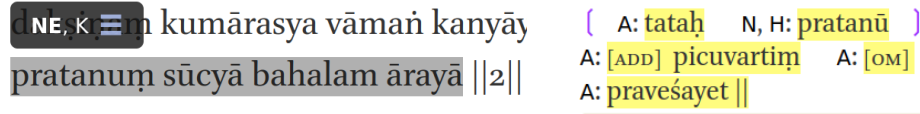


Figure 8: The digital edition of SS.1.16.3

the word *picuvartim* after *tataḥ*, omitted *sūcyā bahalam*,¹⁴² and has *praveśayet* instead of *ārayā*, which is attested by all of the Nepalese witnesses.

A popup on a dark background, as shown in Figure 8, displays the manuscript sigla for the witnesses that support the selected reading, which is labelled “NE” (“New Edition”). As seen in Figure 9, the positive apparatus of *pratanuṃ sūcyā bahalam ārayā* appears in a pop-up window in which the lemma and variants are aligned according to letters, and the variations are highlighted in yellow. The positive apparatus can be expanded by highlighting one or more words, and even entire passages or verses, and clicking on the collapsed menu icon.

SP: pratanuṃ	sūcyā bahalam ārayā
A: tataḥ [ADD] picuvartim [OM]	praveśayet
K: pratanuṃ	sūcyā bahalam ārayā
N: pratanū	sūcyā bahalam ārayā
H: pratanū	sūcyā bahalam ārayā

Figure 9: The witnesses to a selected passage of SS.1.16.3

In both the negative and positive apparatuses of the digital edition, you must infer conjectures and corrections by the editors. Testimonia and notes are in the apparatus on the right side of the “provisional edition” text. They give an opportunity for the editors to provide scholarly commentary of various kinds, but the editors cannot write comments directly into the textual apparatus itself, since it is constructed live each time the text is displayed.

¹⁴² The omitted words are displayed by hovering the cursor over [OM] adjacent to A in the apparatus.

Critical Edition of Sūtrasthāna 16

अथातः कर्णव्यधविधिं व्याख्यास्यामः ॥ १ ॥

1.16.1

रक्षाभूषणनिमित्तम्बालस्य कर्णौ व्यधयेत्। तौ षष्ठे मासे सप्तमे वा शु-
क्लपक्षे प्रशस्तेषु तिथिकरणमुहूर्त्तनक्षत्रेषु कृतमङ्गलस्वस्तिवाचनं^१ धात्र्य-
ङ्के कुमारमुपवेश्याभिसान्त्वयमानो^२ भिषग्वामहस्तेनाकृष्य कर्णन्दैवकृते
छिद्रे दक्षिणहस्तेन ऋजु विध्येत्। दक्षिणं कुमारस्य वामङ्गन्यायाः। प्रतनुं
सूच्या बहलमारया ॥ २ ॥

1.16.3

शोणितबहुत्वेऽतिवेदनायां चान्यदेशविद्धमिति जानीयात्। निरुपद्रवता
तद्देशविद्धलिङ्गम् ॥ ३ ॥

1.16.4

तत्र यदृच्छाविद्धायां सिरायामज्ञेन ज्वरदाहश्चयथुवेदनाग्रन्थिमन्या-
स्तम्भापतानकशिरोग्रहकर्णशूलानि भवन्ति ॥ ४ ॥

1.16.5

Witnesses

१--८ अथातः--०विद्धलिङ्गम्] MSS K, H, and N

९ तत्र] MSS H and N. From here to the end of 1.16, MS K is missing a folio.

MS variants

१ व्याख्यास्यामः] व्या K. २ सप्तमे] om. N. ३ ०मङ्गलस्वस्तिवाचनं] A; ०मङ्गलं स्वस्तिवाचनं K, H, N. ३--४ धात्र्यङ्के] धात्र्यङ्को K. ४ कुमार] कुमारकम् N. ५ ऋजु] जुम् N H. ५ प्रतनुं] प्रतनू N H. ९ ०श्चयथुम्] em.; ०श्चयथुर् N; ०श्चयथुर् H.

Variants from Su 1938

१ कर्णव्यधविधिं] कर्णव्यधन्धविधिमध्यायं A. १ व्याख्यास्यामः] add. यथोवाच भगवान्धन्वन्तरिः ॥ A. २ व्य-
धयेत्] विध्येते A. २ मासे] मासि A. ३--४ धात्र्यङ्के] add. कुमारधराङ्के वा A. ४ मुपवेश्याभिसान्त्वयमानो]
उपवेश्य बालक्रीडनकैः प्रलोभ्याभिसान्त्वयन् A. ४ कर्णन] कर्ण A. ५ छिद्रे] छिद्र A. ५ छिद्रे] add. आदि-
त्यकरावभासिते शनैः शनैर् A. ५ ऋजु] जुम् A ५ विध्येत्] add. प्रतनुकं सूच्या बहलमारया A. ५ कन्यायाः]
कुमार्याः A. ६ आरया] add. ततः पिचुवर्ति प्रवेशयेत् ॥ A. ७ बहुत्वे] बहुत्वेन A. ७ ऽतिवेदनायां] वेदनाया A.
७ ०द्रवता] ०द्रवतया A. ८ ०विद्धलिङ्गम्] ०विद्धमिति A. ९ तत्र] तत्राज्ञेन A. ९ यदृच्छाविद्धायां] यदृच्छया
विद्धासु A. ९ सिरायाम्] सिरासु A. ९ सिरायाम्] add. कालिकामर्मरिकालोहितिकासूपद्रवा भवन्ति। तत्र कालिकायां
A. ९ ज्वरं] ज्वरो ९ ०दाहं] दाहः ९ ०श्चयथुम्] श्वयथुर् A. ९ ०वेदनाम्] add. च भवति मर्मरिकायां वेदना
ज्वरो A. ९ ०ग्रन्थिम्] ग्रन्थयश् A. ९ ०ग्रन्थिम्] add. च लोहितिकायां A. १० भवन्ति] add. तेषु यथास्वं
प्रतिकुर्वीत ॥ क्लिष्टजिह्वाप्रशस्तसूचीव्यधाद्वादतरवर्तित्वाद् A.

Notes

^१The compound कृतमङ्गलस्वस्तिवाचनं is an emendation based on the similar text at 3.2.25 (Su 1938: 346).

^२The ātmanepada participle is a permitted form, although the vulgate has the parasmaipada. Ḍalhana, on 1.16.3 (Su 1938: 76), recorded the alternative reading भक्ष्यविशेषैर्वा before बालक्री-
डनकैः प्रलोभ्य in the vulgate.

दोषसमुदयादप्रशस्तव्यधाद्वा तत्र वर्त्तिमपहत्य यवमधुकमञ्जिष्ठागन्ध-
र्वहस्तमूलैर्मधुघृतप्रगाढैरालेपयेत्। सुरूढञ्चैनम्पुनर्विध्येत्॥ ५ ॥^३

1.16.6

सम्यग्विद्धमामतैलपरिषेकेणोपचरेत् । त्र्यहात्त्र्यहाद्वर्त्ति स्थूलतरीङ्^४
कुर्वीत परिषेकञ्च तमेव ॥ ६ ॥

1.16.7

१५ अथ व्यपगतदोषोपद्रवे कर्णोऽलंप्रवर्द्धनार्थं लघुप्रवर्द्धनकमामुञ्चेत्
॥ ७ ॥

1.16.8

एवं सम्वर्द्धितः कर्णश्छिद्यते तु द्विधा नृणाम्।

दोषतो वाभिघाताद्वा सन्धानान्तस्य मे शृणु ॥ ८ ॥

1.16.9

२० तत्र समासेन पञ्चदशसन्धानाकृतयो भवन्ति।^५ तद्यथा। नेमीसन्धा-
नकः। उत्पलभेद्यकः। वल्लूरकः। आसङ्गिमः। गण्डकर्णः। आहार्यः।
निर्व्वेधिमः। व्यायोजिमः। कपाटसन्धिकः। अर्द्धकपाटसन्धिकः। सङ्घि-

MS variants

११--१२ °गन्धर्वहस्तमूलैर्] °गन्धर्वहस्तमूलै N. १३ °परिषेकेणोप°] °परिषेकेणोप° H. १३ °तरीङ्] °तरी N
१५ लघुप्रवर्द्धनकम्] ल प्रवर्द्धनकामो N; प्रवर्द्धनकामा "मै" H. १५--१६ आमुञ्चेत्] em.; मुञ्चेत् N H. १७ नृणाम्]
नृणा N. १८] A; दोषतो N H. १९ °सन्धाना°] °सन्धा° N. २१ अर्द्धकपाटसन्धिकः] om. N.

Variants from Su 1938

११ वा] add. यत्र संरम्भो वेदना वा भवति A. ११ अपहत्य] उपहत्याशु A. ११--१२ यवमधुक°] मधुकैरण्डमूल°
A. ११--१२ °मञ्जिष्ठागन्धर्वहस्तमूलैर्] °मञ्जिष्ठागन्धर्वहस्तमूलैर् A. १२ आलेपयेत्] add. तावद्यावत्सुरूढ इति॥
A. १२ विध्येत्] add. विधानं तु पूर्वोक्तमेव॥ A. १३ सम्यग्°] तत्र सम्यग्° A. १३ आमतैलपरिषेकेणोपचरेत्]
आमतैलेन परिषेचयेत् A १३ त्र्यहाद्] add. च A. १३ °तरीङ्] °तरां A १४ कुर्वीत] दद्यात् A. १५ ऽलंप्र-
वर्द्धनार्थं] om. A. १५ लघुप्रवर्द्धनकम्] लघुव° A १५--१६ आमुञ्चेत्] कुर्यात्॥ A १७ सम्वर्द्धितः] विवर्द्धितः
A. १८ सन्धानान्] सन्धानं A. १९ °दशसन्धानाकृतयो] °दशकर्णवन्धाकृतयः A. १९ भवन्ति] om. A. २०
नेमी°] नेमि° A. २१ °सन्धिकः। अर्द्ध°] °सन्धिको ऽर्द्ध° A

Notes

^३Dalhaṇa, on 1.16.6 (Su 1938: 77), stated that some do not read सुरूढञ्चैनम्पुनर्विध्येत्.

^४The unusual form स्थूलतरी is supported by both manuscripts and we have retained it in spite of only meagre evidence for the form in epic Sanskrit.

^५Cakrapāṇidatta, on 1.16.9–13 (Su 1939: 128), and Dalhaṇa, on 1.16.10 (Su 1938: 78), pointed out that others read पञ्चदशकर्णकृतयः (instead of पञ्चदशसन्धानाकृतयः). At the same place, Dalhaṇa also mentioned that some read समुन्नतसमोभयपालिः (instead of वृत्तायतसमोभयपालिः) and others do not read संक्षिप्तादयः पञ्चासाध्याः.

प्तः। हीनकर्णः। वल्लीकर्णः। यष्टीकर्णः। काकौष्ठः। इति। तेषु तत्र
 पृथुलायतसमोभयपालिर्नेमीसन्धानकः। वृत्तायतसमोभयपालिरुत्पलभे-
 द्यकः। ह्रस्ववृत्तसमोभयपालिर्वल्लूरकर्णकः। अभ्यन्तरदीर्घैकपालिरास-
 २५ ङ्गिमः। बाह्यदीर्घैकपालिर्गण्डकर्णकः। अपालिरुभयतोऽप्याहार्यः। पी-
 ठोपमपालिर्निर्व्वेधिमः। अणुस्थूलसमविषमपालिर्व्यायोजिमः। अभ्यन्त-
 रदीर्घैकपालिरितराल्पपालिः कपाटसन्धिकः। बाह्यदीर्घैकपालिरितराल्प-
 पालिश्चार्द्धकपाटसन्धिकः। तत्रैते दशकर्णसन्धिविकल्पा बन्ध्या भवन्ति।
 तेषान्नामभिरेवाकृतयः प्रायेण व्याख्याताः। संक्षिप्तादयः पञ्चासाध्याः। तत्र
 ३० शुष्कशङ्कुलिरितराल्पपालिः संक्षिप्तः। अनधिष्ठानपालिः पर्यन्तयोश्च क्षी-
 णमांसो हीनकर्णः। तनुविषमपालिर्वल्लीकर्णः। ग्रन्थितमांसः स्तब्धसि-
 राततसूक्ष्मपालिर्यष्टीकर्णः। निर्मांससंक्षिप्ताग्राल्पशोणितपालिः काकौष्ठ
 इति। बद्धेष्वपि दाहपाकस्त्रावशोफयुक्ता न सिद्धिमुपयान्ति ॥ ९ ॥ ६

1.16.10

MS variants

२२ काकौष्ठः] काकौष्ठम् H. २२ इति] ति H. २३ ०यतसमो] A; ०यसमो H; ०तसमो N. २४ ०भेद्यकः]
 ०भेद्यः N; ०भेदकः H. २४ वल्लूर०] वल्लूर० N. २५ बाह्य] A; बाह्यैक N H. २६ अणुस्थूल०] अशुस्थूल० H
 २७ कपाट०] कवाटा० H. २८ चार्द्धकपाट०] *em.*; वार्द्धकवाट० H; चार्द्धकवाप० N. ३० पर्यन्तयोश्च] *om.* N.
 ३१ ग्रन्थितमांसः] ०ग्रन्थितमान्सः N H. ३२ निर्मांस०] A; निमांस० N; निर्मान्स० H. ३३ ०स्त्राव०] ०श्राव०
 H. ३३ ०शोफ०] ०सोफ० N.

Variants from Su 1938

२२ यष्टी०] यष्टि० A. २२ काकौष्ठः] काकौष्ठक A. २२ तत्र] *om.* A. २३ नेमी०] नेमि० A. २४ वल्लूर०]
 वल्लूरकः A. २५-२६ पीठोपमपालिर्] *add.* उभयतः क्षीणपुत्रिकाश्रितो A. २६ अणुस्थूल०] स्थूलाणु० A. २८
 चार्द्ध०] अर्ध० A. २८ तत्रैते] तत्र A. २८ दशकर्णसन्धिविकल्पा] दशैते कर्णबन्धविकल्पाः A. २८ बन्ध्या भवन्ति]
 साध्याः A. २९ तेषान्] तेषां A. २९ नामभिर्] स्वनामभिर् A. ३० शुष्कशङ्कुलिर्] *add.* उत्सन्नपालिर् A. ३०
 च] *om.* A. ३१ ०षमपालिर्] ०षमाल्पपालिर् A. ३१ ग्रन्थितमांसः] ग्रथितमांस० A. ३१-३२ ०सिराततसूक्ष्म०]
 ०सिरासंततसूक्ष्म० A. ३२ काकौष्ठ] काकौष्ठक A. ३३ अपि] *add.* तु शोफ A. ३३ ०दाह०] *add.* ०राग० A. ३३
 ०पाक०] *add.* ०पिडका० A. ३३ ०शोफ०] *om.* A. ३४ *inserted passage*] भवन्ति चात्र। यस्य पालिद्वयमपि
 कर्णस्य न भवेदिह। कर्णपीठं समे मध्ये तस्य विद्धा विवर्धयेत्॥ बाह्यायामिह दीर्घायां सन्धिराभ्यन्तरो भवेत्। आभ्यन्तरायां
 दीर्घायां बाह्यसन्धिरुदाहृतः॥ एकैव तु भवेत्पालिः स्थूला पृथ्वी स्थिरा च या। तां द्विधा पाटयित्वा तु छित्त्वा चोपरि सन्धयेत्॥
 गण्डादुत्पाद्य मांसेन सानुबन्धेन जीवता। कर्णपालीमापालेस्तु कुर्यान्निलिख्य शास्त्रवित्॥ A.

Notes

६ The vulgate passage inserted between 9 and 10 (from भवन्ति चात्र to शास्त्रवित्) was probably also absent in the version of the *Suśrutasaṃhitā* commented on by Cakrapāṇi, who cited it in his commentary as being “read by some” in regard to the joins (सन्धान) that they describe (1.16.9-13 (Su 1939: 128)).

३५ अतोऽन्यतमस्य बन्धञ्चिकीर्षुः अग्रोपहरणीयोक्तोपसम्भृतसम्भारः
विशेषतश्चात्रोपहरेत्^९ सुरामण्डक्षीरमुदकं धान्याम्लकपालचूर्णञ्चेति। त-
तोऽङ्गनां पुरुषम्वा ग्रथितकेशान्तं लघुभुक्तवन्तमासैः सुपरिगृहीतं च कृत्वा
बन्धानुपधार्य छेद्यभेद्यलेख्यव्यधनैरुपपाद्य कर्णशोणितमवेक्ष्यैतद्दुष्टमदु-
ष्टम्वेति ततो वातदुष्टे धान्याम्लोदकाभ्यां पित्तदुष्टे शीतोदकपयोभ्यां श्लेष्मदुष्टे
४० सुरामण्डोदकाभ्यां प्रक्षाल्य कर्णम्पुनरवल्लिखेत्। अनुन्नतमहीनमविषमञ्च
कर्णसन्धिन्निवेश्य स्थितरक्तं सन्दर्श्य मधुघृतेनाभ्यज्य पिचुप्लोतयोरन्य-
तरेणावगुण्ठ्य नातिगाढन्नातिशिथिलं सूत्रेणावबध्य कपालचूर्णैर्नावकी-
र्याचारिकमुपदिशेत्। द्विव्रणीयोक्तेन चात्रेनोपचरेत् ॥ १० ॥

1.16.15

विघट्टनन्दिवास्वप्नं व्यायाममतिभोजनम् ।

४५

व्यवायमग्निसन्तापम्वाक्श्रमञ्च विवर्जयेत् ॥ ११ ॥

1.16.16

नातिशुद्धरक्तमतिप्रवृत्तरक्तं क्षीणरक्तं वा सन्दध्यात्। स हि वातदुष्टे

MS variants

३५] ततो N. ३५ ०पहरणीयो०] ०पसंहरणीयो० N. ३६ चात्रोपहरेत्] A; चाग्रोपहरणीयात् N.H. ३७ पुरुषम्] पुरुषञ् N. ३७ च कृत्वा] A; om. N.H. ३८ उपधार्य] उपपाद्य H. ३८ ०शोणितमवेक्ष्यैतद्] ०शोणितत अवेक्ष्यैतद् N. ३८--३९ अदुष्टम्] अदुष्टम् N. ३९ वेति] A; चेति N.H. ३९ धान्याम्लो०] धान्याम्लो० N ३९ शीतोदक०] शीतोदको० N. ४० अवलिखेत्] अवलिखेत् N. ४१ ०सन्धिन्] ०सन्धिं N ४१--४२ ०गुण्ठ्य] ०गुण्ठ्यो H. ४२ ०गाढन्] ०गाढं N. ४२ ०बध्य] ०बद्ध N. ४३ चात्रेनोपचरेत्] उपपोचरेत् N. ४३ ॥ १० ॥] add. भ N. ४४ विघट्टनन्] विघट्टनं N. ४५ अग्निसन्तापम्] आग्निसन्ताप N. ४५ विवर्जयेत्] वर्जयेत् N. ४६ ०शुद्ध०] ०सुद्ध० N. ४६ ०वृत्तरक्तं] ०वृत्तं रक्तं N.

Variants from Su 1938

३५ अतोऽन्यतमस्य] अन्यतमं A. ३५ ०सम्भारः] ०सम्भारं A. ३६ सुरामण्डक्षीरम्] सुरामण्डं क्षीरम् A. ३६ धान्याम्लकपाल०] धान्याम्लं कपाल० A. ३८ बन्धान्] बन्धम् A. ३८ ०व्यधनैर्] add. उपपन्नैर् A. ३८ अवेक्ष्यैतद्] अवेक्ष्य A. ३९ ततो] तत्र A. ३९ धान्याम्लोदका०] धान्याम्लोष्णोदका० A. ४० ०मण्डोदका०] ०मण्डोष्णोदका० A. ४० कर्णम्] कर्णो A. ४० अवलिखेत्] अनुन्नतम्] अवलिख्यानुन्नतम् A. ४१ ०सन्धिन्] ०सन्धिं A ४१ निवेश्य] सन्निवेश्य A. ४१ सन्दर्श्य] सन्दध्यात् A. ४१ सन्दर्श्य] add. ततो A. ४२ नातिगाढन्] सूत्रेणानवगाढमन् A. ४२ नाति०] अति० A. ४२ सूत्रेणावबध्य] च बद्धा A. ४३ चात्रेनोपचरेत्] च विधानेनोपचरेत् A. ४३ ॥ १० ॥] add. भवति चात्र। A. ४४ विघट्टनन्] विघट्टनं A. ४६ नाति०] न चाशु० A.

Notes

^९विशेषतश्चाग्रोपहरणीयात् of the MSS has been emended to विशेषतश्चात्रोपहरेत् to make sense of the list of ingredients, which is in the accusative case. Also, the repetition of अग्रोपहरणीयात् in the Nepalese version suggests that its second occurrence, which does not make good sense here, is a dittographic error.

रक्तबद्धोऽरूढो परिपुटनवान्भवति। पित्तदुष्टे गाढपाकरागवान्। श्लेष्मदुष्टे
स्तब्धकर्णः कण्डूमानतिप्रवृत्तस्त्रावः शोफवान्क्षीणाल्पमांसो न वृद्धिमु-
पैति ॥ १२ ॥

1.16.17

५० स यदा रूढो निरुपद्रवः कर्णो भवति तदैनं शनैः शनैरभिवर्द्धयेत्।
अन्यथा संरम्भदाहपाकवेदनावान्भवति। पुनरपि छिद्येत ॥ १३ ॥

1.16.18

अथाप्रदुष्टस्याभिवर्द्धनार्थमभ्यङ्गः। गोधाप्रतुदविष्किरानूपौदकवसाम-
ज्जापयस्तैलं गौरसर्षपजञ्च यथालाभं संभृत्यार्कालर्कबलातिबलानन्तावि-
दारीमधुकजलशूकप्रतिवापन्तैलम्पाचयित्वा स्वनुगुप्तन्निदध्यात् ॥ १४ ॥^६

1.16.19

५५ स्वेदितो मर्दितङ्कर्णमनेन म्रक्षयेद्बुधः।
ततोऽनुपद्रवः सम्यग्बलवांश्च विवर्द्धते ॥ १५ ॥^९

1.16.20

MS variants

४७ रक्तबद्धोऽरूढो] *em.*; रक्तबद्धो रूढो N; रक्तबद्धो रूढो H. ४७ ०पुटनवान्] ०पुटवाम् N; ०पुटनवाम् H. ४७ ०दु-
ष्टे] ०दुष्टे N. ४७ श्लेष्म] श्लेष्म N. ४८ ०कर्णः] ०वर्णः N. ४८ ०स्त्रावः] ०श्रावः H. ४८ क्षीणाल्प] क्षीणो
ल्प N. ५० रूढो] रूढो N. ५१ ०पाकवेदनावान्] ०पाकरागवेदनावान् N; ०पाकवेदनावाम् H. ५२ अथाप्र] ०
अथास्याः प्र N. ५२ ०दुष्टस्याभिवर्द्धनार्थम्] ०दुष्टस्याविवर्द्धनार्थम् N. ५३-५४ ०आर्कालर्कबलाति] ०आर्कालक-
बलाति N. ५३-५४ ०प्रतिवापन्] ०प्रतिवापं N. ५४ ०गुप्तन्] ०गुप्तं N. ५४ निदध्यात्] निदध्यात् N. ५५
स्वेदितो] स्वेदितो N. ५५ अनेन] अने N. ५६ ततोऽनुपद्रवः] ततो नुपद्रवः H; ततो नुपद्रवम् N.

Variants from Su 1938

४७ रक्तबद्धोऽरूढो] रक्ते रूढोऽपि A. ४७ भवति] *om.* A. ४७ गाढपाकरागवान्] दाहपाकरागवेदनावान् A. ४८
स्तब्ध] स्तब्धः A. ४८ ०वृत्तस्त्रावः शोफवान्] ०वृत्तरक्ते श्यावशोफवान् A. ४८ क्षीणाल्प] क्षीणोऽल्प A. ५०
inserted passage] आमतैलेन त्रिरात्रं परिषेचयेत्त्रिरात्राच्च पिचुं परिवर्तयेत्। A. ५० रूढो] सुरूढो A. ५० कर्णो]
सवर्णो A. ५१ अन्यथा] अतोऽन्यथा A. ५१ ०पाकवेदनावान्] ०पाकरागवेदनावान् A. ५१ भवति] *om.* A. ५१
अपि] *om.* A. ५१ छिद्येत] छिद्यते वा A. ५२ अथाप्र] अथास्याप्र A. ५२ अभ्यङ्गः] *add.* तद्यथा A. ५२-
५३ ०मज्जापयस्तैलं] ०मज्जानौ पयः सर्पिस्तैलं A. ५३-५४ ०बलानन्ता] ०बलानन्तापामार्गाश्वगन्धा A. ५३-५४
०विदारीमधुकजलशूक] ०विदारिगन्धाक्षीरशुक्लाजलशूकमधुरवर्गपयस्या ५३-५४ ०प्रतिवापन्] ०प्रतिवापं A. ५४
तैलम्] *add.* वा A. ५४ ०गुप्तन्] ०गुप्तं A. ५५ स्वेदितो मर्दितङ्] स्वेदितोन्मर्दितं A. ५५ अनेन म्रक्षयेद्बुधः]
स्नेहेनैतेन योजयेत् A.

Notes

^६Dalhaṇa, on 1.16.19 (Su 1938: 79), noted that some read राजसर्षपजं in the place of गौरसर्षपजं. This reading appears to have been accepted by Cakrapāṇi, who glossed राजसर्षपज as श्वेतसर्षप (1.16.18-20 (Su 1939: 130)). Cakrapāṇi also said that some read sarpiś in the place of पयस्. In the compound beginning with अर्क, Dalhaṇa noted that some read अर्कपुष्पी.

^९N has a काकपाद after अने, but the missing letter (one would expect 'न') has not been supplied in a margin or elsewhere.

ये तु कर्णा न वर्द्धन्ते स्नेहस्वेदोपपादिताः।
तेषामपाङ्गे त्वबहिः कुर्यात्प्रछानमेव च ॥ १६ ॥^{१०}

1.16.22cd--23ab

अमिताः कर्णबन्धास्तु विज्ञेयाः कुशलैरिह ।
यो यथा सुनिविष्टः स्यात्तत्तथा योजयेद्विषक् ॥ १७ ॥^{११}

६०

1.16.26.1

जातरोमा सुवर्त्मा च श्लिष्टसन्धिः समः स्थिरः ।
सुरूढोऽवेदनो यस्तु तं कर्णं वर्द्धयेच्छनैः ॥ १८ ॥

1.16.25

MS variants

५८ अबहिः] अर्वाह N. ५८ कुर्यात्] कुर्यात् N. ५८ प्रछानम्] प्रछन्नम् H. ५९ ०बन्धास्] ०बन्धो H. ५९ तु] स्तु H. ६० योजयेद्] योजये N. ६१ सुवर्त्मा] सुपर्मा N; सुवर्म्मा H. ६१ ०सन्धिः] ०सन्धिम N. ६२ तु] em.; तत् N H.

Variants from Su 1938

५७ inserted passage] यवाश्वगन्धायष्ट्राहैस्तिष्ठैश्चोद्वर्तनं हितम्। शतावर्यश्वगन्धाभ्यां पयस्यैरण्डजीवनैः ॥ तैलं विपक्वं सक्षीरमभ्यङ्गात्पालिवर्धनम्। A. ५७ स्नेहस्वेदोप०] स्वेदस्नेहोप० A. ५८ अपाङ्गे त्वबहिः] अपाङ्गदेशे तु A. ५८ च] तु A. ५९ inserted passage] बाह्यच्छेदं न कुर्वीत व्यापदः स्युस्ततो ध्रुवाः ॥ बद्धमात्रं तु यः कर्णं सहसैवाभिवर्धयेत्। आमकोशी समाध्मातः क्षिप्रमेव विमुच्यते ॥ A. ६० सुनिविष्टः] सुविशिष्टः A. ६० स्यात्] तं A. ६० योजये-
द्विषक्] विनियोजयेत् A. ६० inserted passage] (कर्णपाल्यामयाङ्गणां पुनर्वक्ष्यामि सुश्रुत ! ॥ कर्णपाल्यां प्रकुपिता वातपित्तकफास्त्रयः ॥ १ ॥ द्विधा वाऽप्यथ संसृष्टाः कुर्वन्ति विविधा रुजः। विस्फोटः स्तब्धता शोफः पाल्यां दोषे तु वातिके दाहविस्फोटजननं शोफः पाकश्च पैत्तिके। कण्डूः सन्धयथुः स्तम्भो गुरुत्वं च कफात्मके ॥ ३ ॥ यथादोषं च संशोध्य कुर्यात्तेषां चिकित्सितम्। स्वेदाभ्यङ्गपरीषेकैः प्रलेपासृग्विमोक्षणैः ॥ ४ ॥ मूर्द्धां क्रियां बृंहणीयैर्यथास्वं भोजनैस्तथा। य एवं वेत्ति दोषाणां चिकित्सां कर्तुमर्हति ॥ ५ ॥ अत ऊर्ध्वं नामलिङ्गैर्वक्ष्ये पाल्यामुपद्रवान् ॥ अत्पाटकश्चोत्पुटकः श्यावः कण्डूयुतो भृशम् ॥ ६ ॥ अवमन्थः सकण्डूको ग्रन्थिको जम्बुलस्तथा ॥ स्त्रावी च दाहवांश्चैव शृण्वेषां क्रमशः क्रियाम् ॥ ७ ॥ अपामार्गः सर्जरसः पाटला-
लकुचत्वचौ ॥ उत्पाटके प्रलेपः स्यात्तैलमेभिश्च पाचयेत् ॥ ८ ॥ शम्पाकशिग्रुपूतीकान्गोदामेदोऽथ तद्वसाम् ॥ वाराहं गव्यमैपेयं पित्तं सर्पिश्च संसृजेत् ॥ ९ ॥ लेपमुत्पुटके दद्यात्तैलमेभिश्च साधितम् ॥ गौरीं सुगन्धां सश्यामामनन्तां तण्डुलीयकम् ॥ १० ॥ श्यावे प्रलेपनं दद्यात्तैलम् एभिश्च साधितम् ॥ पाठां रसाञ्जनं क्षौद्रं तथा स्यादुष्णकाञ्जिकम् ॥ ११ ॥ दद्याल्लेपं सकण्डूके तैलमेभि-
श्च साधितम् ॥ ब्रणीभूतस्य देयं स्यादिदं तैलं विजानता ॥ १२ ॥ मधुकक्षीरकाकोलीजीवकाद्यैर्विपाचितम् ॥ गोधावराहसर्पाणां वसाः स्युः कृतवृहणे ॥ १३ ॥ प्रलेपनमिदं दद्यादवसिच्यावमन्थके ॥ प्रपौण्डरीकं मधुकं समङ्गां धवमेव च ॥ १४ ॥ तैलमेभिश्च संपक्वं शृणु कण्डूमतः क्रियाम् ॥ सहदेवा विश्वदेवा अजाक्षीरं ससैन्धवमेतैरालेपनं दद्यात्तैलम् एभिश्च साधितम् ॥ १५ ॥ ग्रन्थिके गुटिकां पूर्वं स्त्रावयेदवपाठ्य तु ॥ ततः सैन्धवचूर्णं तु घृष्ट्वा लेपं प्रदापयेत् ॥ १६ ॥ लिखित्वा तत्सुतं घृष्ट्वा चूर्णेर्लीध्रस्य जम्बुले ॥ क्षीरेण प्रतिसार्येनं शुद्धं संरोपयेत्ततः ॥ १७ ॥ मधुपर्णी मधूकं च म मधुकं मधुना सह ॥ लेपः स्त्राविणि दातव्यस्तैलमेभिश्च सा-
धितम् ॥ १८ ॥ पञ्चवल्कैः समधुकैः पिष्टैस्तैश्च घृतान्वितैः ॥ जीवकाद्यैः ससर्पिष्कैर्दह्यमानं प्रलेपयेत् ॥ १९ ॥) A. ६२ यस्तु] च A.

Notes

^{१०}Dalhāṇa, on 1.16.23 (Su 1938: 80), noted that some read तेषामपाङ्गच्छेद्यं हि कार्यमाभ्यन्तरं भवेत्.

^{११}Dalhāṇa, on 1.16.26 (Su 1938: 80), stated that some read सुनिविष्टः (i.e., the reading of the Nepalese version) instead of सुविशिष्टः.

६५

विश्लेषितायामथ नासिकायां
वक्ष्यामि सन्धानविधिं यथावत् ।
नासाप्रमाणं पृथिवीरुहाणां
पत्रं गृहीत्वा त्ववलम्बि तस्य ॥ १९ ॥^{१२}

1.16.27

७०

तेन प्रमाणेन हि गण्डपार्श्वार्द्ध
उत्कृत्य वध्रं त्वथ नासिकाग्रम् ।
विलिख्य चाशु प्रतिसन्दधीत
तं साधुबद्धम्भिषगप्रमत्तः ॥ २० ॥

1.16.28

७५

सुसीवितं सम्यगतो यथावन्
नाडीद्वयेनाभिसमीक्ष्य नह्येत् ।
उन्नामयित्वा त्ववचूर्णणीत
पत्ताङ्गयष्टीमधुकाञ्जनैश्च ॥ २१ ॥

1.16.29

संछाद्य सम्यक्पिचुना व्रणन्तु
तैलेन सिञ्चेदसकृत्तिलानाम् ।
घृतञ्च पाय्यः स नरः सुजीर्णो
स्निग्धो विरेच्यः स्वयथोपदेशम् ॥ २२ ॥

1.16.30

MS variants

६३ नासिकायां] नासिकाया N. ६५ ०प्रमाणं] ०प्रमाण N. ६५ ०वीरुहाणां] ०वीरुहाणम् N. ६६ पत्रं] पत्र N. ६८ वध्रं] वन्ध्र H. ७० ०बद्धम्] ०बद्ध N. ७१ सुसीवितं] *em.*; सुसीवित N; सुशीवितं H. ७४ पत्ताङ्ग०] *em.*; पत्ताङ्ग० H; पत्ताङ्ग N. ७५ व्रणन्तु] व्रण तुन् N. ७८ विरेच्यः] A; विरेच्य N H. ७८ ०देशम्] ०देशः N.

Variants from Su 1938

६३ विश्लेषितायाम्] विश्लेषितायास्त्व A. ६३ नासिकायां] नासिकाया A. ६८ वध्रं] वद्ध A. ७० तं] तत् A. ७० ०बद्धम्] ०बन्धैर् A. ७१ सुसीवितं] सुसंहितं A. ७२ नह्येत्] बद्धा A. ७३ उन्नामयित्वा] प्रोन्नम्य चैनाम् A. ७३ अवचूर्णणीत] अवचूर्णयेत् ७४ पत्ताङ्ग०] पतङ्ग० A. ७५ व्रणन्तु] सितेन A. ७८ स्वयथो] स यथो A.

Notes

^{१२}Cakrapāṇidatta, on 1.16.26 (Su 1939: 133), said that others read नासासन्धानविधिम् here. Ḍal-haṇa, on 1.16.27–31 (Su 1938: 81), stated that some read, छिन्नां तु नासिकां दृष्ट्वा वयःस्थस्य शरीरिणः। नासानुरूपं संच्छिद्य पत्रं गण्डे निवेशयेत्॥

८०

रूढञ्च सन्धानमुपागतं वै
 तद्वध्रशेषं तु पुनर्निकृन्तेत्।
 हीनम्पुनर्वर्द्धयितुं यतेत
 समञ्च कुर्यादतिवृद्धमांसम् ॥ २३ ॥
 इति ओम् ॥

1.16.31

MS variants

७९ सन्धानम्] सन्धाम् N. ७९ उपागतं] उपागतश्च H. ७९ वै] चै H. ८० ंशेषं] ंसेषन् N. ८१ यतेत]
 यतेतः N. ८२ ंमांसम्] ंमान्सम् N. ८३ ओम्] om. N.

Variants from Su 1938

७९ वै] स्यात् A. ८० तद्वध्रं] तद्वध्रं A ८१ हीनम्] हीनां A. ८२ समञ्च] समां A. ८२ ंमांसम्] ंमांसाम्
 A. ८३ ओम्] om. A. ८४ inserted passage] नाडीयोगं विनौष्ठस्य नासासन्धानवद्विधिम्। य एवमेव जानीयात्स
 राज्ञः कर्तुमर्हति॥ A.

Translation of Sūtrasthāna 16

- 1 Now we shall expound the method for piercing the ear.¹⁴³
- 2 One may pierce a child's ears for the purpose of preserving and decorating. During the bright fortnight, when the child is in the sixth or seventh month, on renowned days, half days, hours and constellations, the physician, with a calming presence, sits the boy, who has received a benediction and the recitation of a blessing,¹⁴⁴ on the lap of a wet-nurse.¹⁴⁵ Then, he should pull the ear with his left hand and pierce

¹⁴³ The topic of piercing the ear (कर्णव्यध) is not discussed in the *Carakasamhitā* (HIML: IB, 326, n. 175), but it is mentioned in some texts that followed the *Suśrutasaṃhitā*, such as the *Kaśāpyasaṃhitā* (HIML: IIA, 30). Also, the instrument for piercing the ear is described in the *Aṣṭāṅgaśāstrīdayasaṃhitā* 1.26.26 (Ah 1939: 321). In the versions of the text known to Ḍalhaṇa (Su 1938: 76) and Cakrapāṇidatta (Su 1939: 125), the heading of this chapter is “the method of piercing and joining the ear” (कर्णव्यधबन्धविधि), instead of the Nepalese version's “the method of piercing the ear” (कर्णव्यधविधि). The topic of joining the ear (कर्णबन्ध) is discussed in passages 17–20 of the Nepalese version. However, it appears that only subsequent redactors reflected its importance by including it in chapter headings.

The Nepalese version also omits the opening remark on Dhanvantari that appears in subsequent versions of the text. For a discussion of the frame story in the Nepalese version, see Birch, Wujastyk, Klebanov, Parameswaran, et al. 2021. Ḍalhaṇa (Su 1938: 76) and Cakrapāṇidatta (Su 1939: 125) state that only the ears of healthy people should be pierced, and they quote the lost authority Bhoja to affirm this: “When piercing the ears of children who are free of disease at these times, their ear flaps and apertures, as well as limbs, increase” (for the Sanskrit, see Su 1938: 76).

Some texts use the adjective कर्ण-वेधनी rather than व्यधनी.

¹⁴⁴ The causative form व्यधयेत् is known in Classical Sanskrit (Whitney 1885: 166).

The compound कृतमङ्गलस्वस्तिवाचनं “who has received a benediction and the recitation of a blessing” is an emendation based on the similar text at 3.2.25 (Su 1938: 346). Cf. also 3.10.8, 24 (Su 1938: 388, 390) that have slightly different formulations.

¹⁴⁵ The versions of 1.16.3 known to Cakrapāṇidatta (Su 1939: 126) and Ḍalhaṇa (Su 1938: 76) have the additional compound कुमारधराङ्के (“on the lap of one who holds the child”) after धात्र्यङ्के. The gender of कुमारधर is made clear by Ḍalhaṇa's gloss “a man who holds the child.” Also, both versions add बालक्रीडनकैः प्रलोभ्य (“having enticed with children's toys”) to indicate that the child should be tempted with toys to stay on the assistant's lap. According to Ḍalhaṇa on 1.16.3 (Su 1938: 76), the toys include replica elephants, horses, bulls and parrots. Ḍalhaṇa further mentions that others read भक्ष्य-विशेषैर् वा (“or by special treats”) before बालक्रीडनकैः, but we see no trace of these small kindnesses in our witnesses.

straight through with his right hand at a naturally-occurring cleft.¹⁴⁶
For a boy, do the right ear first; for a girl, do the left one. Use a needle on a thin ear; an awl on a thick one.¹⁴⁷

- 3 One may know that it was pierced in the wrong place if there is excess blood or too much pain. The absence of side-effects is a sign that it has been pierced in the right place.¹⁴⁸
- 4 In this context, if an ignorant person randomly pierces a duct there will be fever, burning, swelling, pain, lumps, paralysis of the nape of the neck, convulsions, headache or sharp pain in the ear.¹⁴⁹
- 5 Having removed the wick (वर्त्ति) because of the accumulation of humours or an unsatisfactory piercing at that location,¹⁵⁰ he should smear

146 The versions of 1.16.3 of Cakrapāṇidatta (Su 1939: 126) and Ḍalhaṇa (Su 1938: 76) add that this naturally-occurring cleft is illuminated by a ray of sunshine (आदित्यकरावभासिते).

The syntax of this slightly long sentence is unusual in beginning with the dual object तौ “the two (ears)” at the start of the sentence, which is remote from the main verb. The other singular accusatives referring to the ear being pierced are governed by absolutes.

147 Ḍalhaṇa on 1.16.3 (Su 1938: 76) clarifies that the awl is a shoe-maker’s knife for piercing leather. He also cites the authority of “the notes of Lakṣmaṇa” (*Lakṣmaṇa-ṭippanaka*) on the issue of the thickness of the needle. *The Notes of Lakṣmaṇa* is not known from any earlier or contemporary sources and was presumably a collection of glosses on the *Suśrutasaṃhitā* that was available to Ḍalhaṇa in twelfth-century Bengal. See Meulenbeld (HIML: IA, 386).

148 At this point, MS Kathmandu KL 699 is missing a folio, so the rest of this chapter is constructed on the basis of witnesses MS Kathmandu NAK 5-333 and MS Kathmandu NAK 1-1079.

149 This passage is significantly augmented in Cakrapāṇidatta’s and Ḍalhaṇa’s versions, to outline the specific problems caused by piercing three ducts called कालिका, मर्मिका and लोहितिका (1.16.4 (Su 1939: 126) and 1.16.5 (Su 1938: 77) respectively). In fact, the order of the problems mentioned in the Nepalese version has been retained in the other versions and divided between each duct. Cakrapāṇidatta’s commentary on 1.16.4 (Su 1939: 126) cites several verses attributed to Bhoja on the problems caused by piercing these three ducts in the ear flap: ‘लोहितिका, मर्मिका and the black ones are the ducts situated in the earflaps. Listen in due order to the problems that arise when they are pierced. Paralysis of the nape of the neck and convulsions, or sharp pain arise from piercing लोहितिका. Pain and lumps are thought to arise from piercing मर्मिका. Piercing कालिका gives rise to swelling, fever and burning.’

150 In addition to these reasons, 1.16.6 of Ḍalhaṇa at 1.16.6 (Su 1938: 77), added “because of piercing with a painful, crooked and unsatisfactory needle” (क्लिष्टजिह्वाप्रशस्तसूचीव्यधात्) and “because of a wick that is too thick” (गाढतरवर्तित्वात्). Ḍalhaṇa was aware of

- it with barley, liquorice, Indian madder, and the root of the castor oil tree, thickened with honey and ghee. And when it has healed well, he should pierce it again.¹⁵¹
- 6 He should treat the properly-pierced ear by sprinkling it with raw sesame oil. After every three days one should make a thicker wick and do the very same sprinkling.
- 7 Once the ear is free from humours or side-effects, one should put in a light dilator (प्रवर्धनक) in order to enlarge it enough.¹⁵²
- 8 *A person's ear enlarged in this way can split in two, either as a result of the humours¹⁵³ or a blow.
Listen to me about the ways of joining it can have.*
- 9 Here, there are, in brief, fifteen ways of mending the ear flap.¹⁵⁴ They are as follows: Rim-join (नेमीसन्धानक), Lotus-splittable (उत्पलभेद्यक), Dried Flesh (वल्लूरक), Fastening (आसङ्गिम), Cheek-ear (गण्डकर्ण), Take away (आहार्य), Ready-Split (निर्वेधिम), Multi-joins (व्यायोजिम), Door-hinge (कपाटसन्धिक), Half door-hinge (अर्धकपाटसन्धिक), Compressed (संक्षिप्त), Reduced-ear (हीनकर्ण), Creeper-ear (वल्लीकर्ण), Stick-ear (यष्टीकर्ण), and

the reading in the Nepalese version because in his commentary on 1.16.6 (Su 1938: 77) he noted that some read “because of the accumulation of humours” rather than “because of piercing with a painful, crooked and unsatisfactory needle or because of a wick that is too thick.” On the concept of humoral accumulation (समुदाय), see the important analysis by Meulenbeld (1992).

- 151 The description of the drug is ambiguous: the word “root” could be taken with each plant, or just with the last. The vulgate reads just “castor oil root” so we assume that is the traditional interpretation.
- 152 Cakrapāṇidatta on 1.16.6 (Su 1939: 127) and Ḍalhaṇa on 1.16.8 (Su 1938: 77) pointed out that the dilator can be made of wood, such as that of the prickly chaff flower, the neem tree and the cotton plant. Ḍalhaṇa added that it can also be made of lead and should have the shape of the datura flower. The manuscripts have variant readings for लघुप्रवर्धनकम् आमुञ्चेत् at this point that include a scribal emendation, none of which construe plausibly. It is possible that the unusual verb form आ+√मुञ्च puzzled the scribes and caused the implausible scribal readings and emendations.
- 153 Ḍalhaṇa on 1.16.9 (Su 1938: 77) notes that the word दोष here can refer to either a humour, such as wind, as we have understood it, or a disease generated from a humour.
- 154 The Nepalese version uses the word सन्धान to refer to joining a split in an ear flap, which is consistent with the terminology in the verse cited above (8). However, 1.16.10 of Ḍalhaṇa’s version (Su 1938: 77) uses the term बन्ध here and at the very beginning of the chapter (i.e., 1.16.1) to introduce the topic of repairing the ear.

Crow's lip (काकौष्ठ).¹⁵⁵

In this context, among these,

- Rim-join: both flaps are wide, long, and equal.
- Lotus-splittable: both flaps are round, long, and equal.
- Dried flesh: both flaps are short, round, and equal.
- Fastening: one flap is longer on the inside.
- Cheek-ear: one flap is longer on the outside.¹⁵⁶
- Take-away: the flaps are missing, in fact, on both sides.
- Ready-split: the flaps are like a dais (पीठ).
- Multi-joins: one flap is small, the other thick, one flap is equal, the other unequal.
- Door-hinge: the flap on the inside is long, the other is small.
- Half door-hinge: the flap on the outside is long, the other is small.

These ten options for joins of the ear should be bound. They can mostly be explained as resembling their names.¹⁵⁷ The five from compressed (संक्षिप्त) on are incurable.¹⁵⁸ Among these, “Compressed” has a dry ear canal and the other flap is small. “Reduced ear” has flaps that have no base and have wasted flesh on their edges. “Creeper-ear” has flaps that are thin and uneven. “Stick-ear” has lumpy flesh and the flaps are stretched thin and have stiff ducts. “Crow-lip” has a flap without flesh with compressed tips and little blood. Even when they are bound up, they do not heal because they are hot, inflamed, suppurating, or swollen.¹⁵⁹

155 For an artist's impression of these different kinds of joins in the ear flap, see Majno 1975: 290 (reproduced as Figure 3.2 in Wujastyk 2003: 154).

156 For an artist's impression of this join, see Majno 1975: 291 (reproduced as Figure 3.3 in Wujastyk 2003: 155).

157 Cakrapāṇidatta on 1.16.9–13 (Su 1939: 128–129) and Ḍalhaṇa on 1.16.10 (Su 1938: 77–78) provide examples of how the names of these joins describe their shapes. For example, the rim-join (नेमीसन्धानक) is similar to the join of the rim of a wheel (चक्रधारा).

158 Ḍalhaṇa on 1.16.10 (Su 1938: 77–78) mentions that some do not read the statement that only five are incurable, and they understand the causes of unsuccessful joins given below (i.e., heat, inflammation, suppuration and swelling) as also pertaining to the first ten when they do heal.

159 The version of 1.16.11–13 known to Ḍalhaṇa (Su 1938: 78) has four verses (श्लोक) at this point that are not in the Nepalese manuscripts. The additional verses iterate the types of joins required for ear flaps that are missing, elongated, thick, wide, etc. All four verses were probably absent in the version of the *Suśrutasaṃhitā* known to Cakrapāṇi-

- 10 A person wishing to perform a join of any of these should therefore have supplies specially prepared according to the recommendations of the “Preparatory Supplies” chapter.¹⁶⁰ And in this regard, he should particularly gather¹⁶¹ decanted liquor (सुरामण्ड), milk, water, fermented rice-water, and powdered earthenware crockery (कपालचूर्ण).¹⁶² Next, having made the woman or man tie up the ends of their hair, eat lightly and be firmly held by qualified attendants, the physician considers the joins and then applies them by means of cutting, splitting, scarification, or piercing.¹⁶³ Next, he should examine the blood of the ear to know whether it is tainted or not. If it is tainted by wind, the ear should be bathed with fermented rice-water and water; if tainted by choler, then cold water and milk should be used; if tainted by phlegm, then decanted liquor and water should be used, and then he should scarify it again.
- After arranging the join in the ear so that it is neither proud, depressed, nor uneven, and observing that the blood has stopped, one should anoint it with honey and ghee, bandage each ear with cotton and gauze (स्रोत), and bind it up with a thread, neither too tightly nor too loosely. Then, the physician should sprinkle earthenware powder on it and provide medical advice (आचारिक). And he should supplement

datta. He cites the verses separately in his commentary, the *Bhānumatī* (Su 1939: 128–129), introducing each one as ‘some people read’ (के चित्पठन्ति). However, in Trikamajī Ācārya’s edition of the *Sūtrasthāna* of the *Bhānumatī*, the root text is largely identical to the one commented on by Ḍalhaṇa (Su 1938), even in instances like this where Cakrapāṇidatta’s commentary indicates that he was reading a different version of the *Suśrutasaṃhitā*. See further the discussion on p. 8 above.

- 160 *Suśrutasaṃhitā* 1.5 (Su 1938: 18–23), probably verse 6 especially that lists the equipment and medications that a surgeon should have ready.
- 161 The reading in the Nepalese manuscripts of विशेषतश्चाग्रोपहरणीयात् has been emended to विशेषतश्चाग्रोपहरेत् to make sense of the list of ingredients, which is in the accusative case. Also, the repetition of अग्रोपहरणीयात् in the Nepalese version suggests that its second occurrence, which does not make good sense here, is a dittographic error.
- 162 The term कपालचूर्ण is unusual. Ḍalhaṇa (Su 1938: 79) defines it as the powder of fragments of fresh earthen pots and Cakrapāṇidatta (Su 1939: 129) as the powder of earthenware vessels.
- 163 There are syntactic difficulties in this sentence. We have adopted the reading in Ḍalhaṇa’s version (Su 1938: 78), which has च कृत्वा following सुपरिगृहीतं. It is likely that a verb, such as कृत्वा, dropped out of the Nepalese transmission.

with food as taught in the “Two Wound” chapter.¹⁶⁴

- 11 *One should avoid rubbing, sleeping during the day, exercise, overeating, sex, getting hot by a fire, or the effort of speaking.*
- 12 One should not make a join when the blood is too pure, too copious, or too thin.¹⁶⁵ For when the ear is tainted by wind, then it is obstructed by blood, unhealed and will peel. When tainted with choler, it becomes pinched (गाढ), septic and red. When tainted by phlegm, it will be stiff and itchy. It has excessively copious suppuration and is swollen. It has a small amount of wasted (क्षीण) flesh and it will not grow.¹⁶⁶
- 13 When the ear is properly healed and there are no complications, one may very gradually start to expand it. Otherwise, it may be inflamed (संरम्भ), burning, septic or painful. It may even split open again.
- 14 Now, massage for the healthy ear, in order to enlarge it. One should gather as much as one can the following: a monitor lizard, scavenging and seed-eating birds, and creatures that live in marshes or water,¹⁶⁷ fat, marrow, milk, and sesame oil, and white mustard oil.¹⁶⁸ Then cook the oil with an admixture of the following: purple calotropis, white calotropis, heart-leaf sida, country mallow, country sarsaparilla, Indian kudzu, liquorice, and hornwort.¹⁶⁹ This should then be depos-

think more about the compound structure here?

164 *Suśrutasamhitā* 4.1 (Su 1938: 396–408).

165 1.16.17 of Ḍalhaṇa’s version (Su 1938: 79) reads “impure” for the Nepalese “too pure,” which would appear to make better medical sense. Emending the text to नाशुद्ध- for नातिशुद्ध- in the Nepalese recension would yield the same meaning as the Ḍalhaṇa’s version.

166 In his edition of *Suśrutasamhitā*, Ācārya (Su 1938: 79 n. 1) includes in parentheses the following treatment for these conditions, which according to a footnote is not found in the palm-leaf manuscript he used: ‘One should sprinkle it with raw sesame oil for three days and one should renew the cotton bandage after three days’ (आमतेलेन त्रिरात्रं परिषेचयेत्त्रिरात्राच्च पिचुं परिवर्तयेत्).

167 For such classifications, see the analyses by Zimmermann (1999) and Smith (1994).

168 Ḍalhaṇa’s version of 1.16.19 (Su 1938: 79) includes ghee. However, Ḍalhaṇa’s remarks on this passage and Cakrapāṇidatta’s on 1.16.18 (Su 1939: 130) indicate that they knew a version of this recipe, perhaps similar to the Nepalese one, that did not include ghee. Ḍalhaṇa also noted that others simply read four oils, beginning with fat and without milk, whereas Cakrapāṇidatta said that some say it is made with four oils and milk.

169 The version of of this verse known to Ḍalhaṇa (vulgate (Su 1938: 79)) adds several ingredients to this admixture, including prickly chaff-flower, *Withania*, milk-white, sweet plants and Indian ipecac. Also, it has beggarweed instead of Indian kudzu. When commenting on 1.16.19, Ḍalhaṇa (Su 1938: 79) noted that some do not read

- ited in a well-protected spot.
- 15 *The wise man who has been sweated should rub the massaged ear with it.*
 *Then it will be free of complications, and will enlarge properly and be strong.*¹⁷⁰
- 16 *Ears which do not enlarge even when sweated and oiled, should be scarified at the edge of the hole, but not outside it.*¹⁷¹
- 17 *In this tradition, experts know countless repairs to ears. So a physician who is very intent on working in this way may repair them.*¹⁷²
- 18 *If an ear has grown hair, has a nice hole, a firm join, and is strong and even, well-healed, and free from pain, then one can enlarge it slowly.*¹⁷³
- 19 *Now I shall describe the proper method of making a repair when a nose is severed. First, take from the trees a leaf the same size as the man's nose and hang it on him.*
- 20 *Next, having cut a slice of flesh (वज्र),¹⁷⁴ with the same measurements,*

sweet plants and Indian ipecac. Therefore, at his time there were other versions of this recipe circulating, with fewer ingredients, as seen in the Nepalese version.

170 For these aims (i.e., healing and enlarging the ear), the text known to Ḍalhaṇa (Su 1938: 79) had an additional verse and a half describing an ointment for rubbing the ear and sesame oil cooked with various medicines for massage. Cakrapāṇidatta (Su 1939: 131) did not comment on these verses, nor verse 15 of the Nepalese version, and so the version of the *Suśrutasaṃhitā* known to him may not have included them.

171 Ḍalhaṇa's version of 1.16.23 (Su 1938: 79–80) added another hemistich that stated more explicitly that the scarification should not be done on the outside of hole as it will cause derangement.

172 After verse 17, the 1938 edition of Ācārya (Su 1938: 80) has in parentheses nineteen verses on diseases of the ear lobes, treatments and complications. It is possible that these verses were in some of the witnesses used by Ācārya to construct the text as they occur in other manuscripts, such as MS Hyderabad Osmania 137-3(b). However, Cakrapāṇidatta (Su 1939: 132) and Ḍalhaṇa (Su 1938: 80) stated that some read about the diseases of the ear lobes in this chapter whereas others read about them in the chapter on various treatments (मिश्रकचिकित्स) (SS 5.25), which does indeed begin with a discussion of the disease परिपोट. Ḍalhaṇa went on to say that some believe that these verses were not composed by sages and, therefore, do not read them.

173 The order of verses 17 and 18 is reversed in Ḍalhaṇa's version (Su 1938: 80).

174 The version of 1.16.28b known to Ḍalhaṇa (Su 1938: 81) reads "bound, connected (बद्धम्)" instead of "slice of flesh (वज्र)." This is a critical variant from the surgical point of view. If the slice remains connected, it will have a continuing blood supply. This is one of the effective techniques that so astonished surgeons witnessing a similar operation in Pune in the eighteenth century (see Wujastyk 2003: 67–70).

off the cheek, the end of the nose is then scarified.¹⁷⁵ Then the undistracted physician, should quickly put it back together so that it is well joined.

- 21 Having carefully observed that it has been sewn up properly, he should then fasten it along with two tubes.¹⁷⁶ Having caused it to be raised,¹⁷⁷ the powder of sappanwood,¹⁷⁸ liquorice and Indian barberry.¹⁷⁹ should be sprinkled on it.
- 22 The wound should be covered properly with cotton and should be moistened repeatedly with sesame oil. Ghee should be given to the man to drink. His digestion being complete, he should be oiled and purged in accordance with the instructions specific to him.¹⁸⁰
- 23 And once healed and really come together, what is left of that slice of flesh (वघ्न) should then be trimmed.¹⁸¹ If it is reduced, however, one should make an effort to stretch it, and one should make its overgrown flesh smooth.¹⁸²

añjana

175 Or 1.16.20 could be mean, ‘... off the cheek, it is fixed to the end of the nose, which has been scarified.’ Unfortunately, the Sanskrit of the Nepalese version is not unambiguous on the important point of whether or not the flap of grafted skin remains connected to its original site on the cheek. However, Ḍalhaṇa (Su 1938: 81) clarified the meaning of the vulgate here by stating that one should supply the word “flesh” when reading “connected,” thus indicating that he understood the flesh to be connected to the face.

176 Ḍalhaṇa noted that the two tubes should be made of reed or the stalk of the leaf of castor oil plant (on 1.16.21 (Su 1938: 81)). They should not be made of lead or betel nut because the weight will cause them to slip down.

177 The Sanskrit term उन्नामयित्वा in 1.16.21 is non-Pāṇinian.

178 *Caesalpinia sappan*, L. For पत्ताङ्ग there are manuscript variants पत्ताङ्ग (MS Kathmandu NAK 5-333) and पत्तङ्ग (MS Kathmandu NAK 1-1079). Also, MS Kathmandu KL 699 (f. 14r:1) has पत्ताङ्ग in a verse in 1.14 (cf. 1.14.36 (Su 1938: 66)). The text known to Ḍalhaṇa has पत्तङ्ग (1.16.29 (Su 1938: 81)) and this term is propagated in modern dictionaries.

179 *Berberis aristata*, DC. Ḍalhaṇa understood it as elixir salve (रसाञ्जन) (Su 1938: 81).

180 The expression स्वयथोपदेश is ungrammatical but supported in all available witnesses.

181 The vulgate transmission has lost the word वघ्न and replaced it with अर्ध “half,” which makes little sense in this surgical context.

182 Ḍalhaṇa accepted a verse following this, 1.16.32 (Su 1938: 81), which pointed out that the procedure for joining the nose is similar to that of joining the lips without fusing the ducts. He noted that earlier teachers did not think this statement on the nose and lips was made by sages, but he included it because it was accepted by Jejjāta, Gayadāsa and others, although they did not comment on it because it was easy to understand. Cakrapāṇidatta also did not comment on this additional verse (Su 1939: 133).

Abbreviations

Ah 1939	Kuṁṭe, Aṇṇā Moreśvara, Navare, Kṛṣṇaśāstrī, and Parādkar, Hariśāstrī (1939) (eds.), श्रीमद्वाग्भटविरचितम् अष्टाङ्गहृदयम्, श्रीमदरुणदत्तविरचितया सर्वाङ्गसुन्दराख्यया व्याख्यया, हेमाद्रिप्रणीतया आयुर्वेदरसायनाह्वया टीकया च समुल्लसितम् = <i>The Astāṅgaḥṛidaya</i> (6th edn., Mumbayyām: Nirṇayasāgara Press), ark:/13960/t3tt6967d .
Anup	<i>Anup Sanskrit Library</i> (n.d.).
Anup	<i>Anup Sanskrit Library</i> (n.d.).
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 1957–9.
AS	<i>Asiatic Society</i> (n.d.).
As 1980	Āṭhavale, Anaṃta Dāmodara (1980) (ed.), <i>Aṣṭāṅgasan̄grahaḥ. Śrīmad Vṛddhavāgbhaṭaviracitaḥ Induvyākhyāsahitaḥ</i> (Pune: Maheśa Anaṃta Āṭhavale, Śrīmad Ātreya Prakāśanam), ark :/13960/t9773bb9z .
Bhela 1921	Mookerjee, Ashutosh and Ananta Krishna Shastri, Vedantabisharad (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> (n.d.).
Ca. 1941	Ācārya, Yādavaśarma Trivikrama (1941) (ed.), महर्षिणा पुनर्वसुनोपदिष्टा, तच्छिष्येणाग्निवेशेन प्रणीता, चरक-द्वबलाभ्यां प्रतिसंस्कृता चरकसंहिता, श्रीचक्रपाणिदत्तविरचितया आयुर्वेददीपिकाव्याख्यया संवलिता (3rd edn., Mumbayyām: Nirnaya Sagara Press), URL , accessed 01/01/2018.
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).
KL	<i>Kaiser Library</i> (n.d.).
MIN	Ācārya, Yādavaśarma Trivikrama (1932) (ed.), महामतिश्रीमाधवकरप्रणीतं माधवनिदानम् श्रीविजयरक्षित-श्रीकण्ठदत्ताभ्यां विरचितया मधुकोशाख्यव्याख्यया, श्रीवाचस्पति-वैद्यविरचितया आतङ्कदर्पणव्याख्याया विशिष्टांशेन च समुल्लसितम् = <i>Mādhavanidāna by Mādhavakara with the Two Commentaries, Madhukosha by Vijayarakshita & Shrikanthadatta and Ātānkadarpaṇa 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> (n.d.).

- NCC Raghavan, V. et al. (1949–), *New Catalogus Catalogorum, an Alphabetical Register of Sanskrit and Allied Works and Authors*, 39 vols. (Madras University Sanskrit Series; Madras: University of Madras); v.1: revised edition, 1968.
- NGMCP NGMCP (2014), “Nepal-german Manuscript Cataloguing Project. Online Title List and Descriptive Catalogue,” Universität Hamburg and Deutsche Forschungsgemeinschaft, [URL](#).
- RORI *Rajasthan Oriental Research Institute* (n.d.).
- Su 1889 Bhaṭṭācāryya, Jīvānanda 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 श्रीगयदासाचार्य-विरचितया न्यायचन्द्रिकाख्यपञ्जिकाव्याख्यया 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-saṅhitā (sūtra Sthān) with Bhānumatī Commentary by Chakrapāṇi Datta with Introduction by Gaṇanāth Sen* (Śrīsvāmī Lakṣmīrāma Nidhi Granthamālā = Shri Swāmī Lakshmī 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 Suśrutasaṅhitā of Suśruta with Various Readings, Notes and Appendix etc.* (Mumbāi: Nirṇayasāgarākhyamudraṇālaye), [URL](#).
- TMSSML *Tanjore Maharaja Serfoji Saraswati Mahal Library* (n.d.).
- Viṣṇudh. Śarman, Madhusūdana and Śarman, Mādhavaprasāda (1912) (eds.), विष्णुधर्मोत्तरपुराणम् = [*Viṣṇudharmottarapurāṇa*] (Mumbai: Khemarāja

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Glossary and Index of Medical Substances

- beggarweed (*vidārigandhā*) → śālaparṇī.
Desmodium gangeticum (L.) DC. See
Dymock: v. 1, 428, *GJM*: 602, cf.
Nadkarni: #1192; *ADPS*: 382, 414 and
AVS: v. 2, 319, 4.366 are confusing,
26, 58
- country mallow (*atibalā*) Abutilon
indicum, (L.) Sweet, but may be other
kinds of mallow, e.g., *Sida rhombifolia*,
L.. See *Nadkarni*: #11, *IGP*: 1080,
Nadkarni: #2300, *ADPS*: 71, 77, 58
- country sarsaparilla (*anantā*)
Hemidesmus indicus, (L.) R. Br. See
ADPS: 434, *AVS*: v. 3, 141–5,
Nadkarni: #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), 58
- giant potato (*kṣīravīdārī*) possibly →
kṣīraśukla. *Ipomoea mauritiana*, Jacq.
See *ADPS*: 510, *AVS*: v. 3, 222, *AVS*: v. 3,
1717 ff, 93, 94
- heart-leaf sida (*balā*) *Sida cordifolia*, Linn.
See *ADPS*: 71, *Nadkarni*: #2297, 58
- Holostemma* creeper (*jīvantī*) →
sūryavallī? *Holostemma ada-kodien*,
Schultes. See *ADPS*: 195, *AVS*: v. 3, 167,
Nadkarni: #1242, *AVS*: v. 3, 1619, 94
- hornwort (*jalaśūka*) ← *jalanīlikā*.
Ceratophyllum demersum, L. See
AVS: v. 2, 56, *IGP*: 232. Singh and
Chunekar (*GVDB*: 166) suggest
pondweed. Ḍalhaṇa noted on 1.16.19
(*Su* 1938: 79) that some people
interpret it as a poisonous, hairy,
air-breathing, underwater creature, 58
- Indian ipecac (*payasyā*) Uncertain.
Possibly *Tylophora indica* (Burm.f.)
Merr. Perhaps a synonym of
sun-flowered, giant potato, purple
roscoea, and plants like asthma plant
and Gulf sandmat (*GVDB*: 237–238),
26, 58, 59, 94
- Indian kudzu (*vidārī*) → *payasyā*.
Pueraria tuberosa (Willd.) DC. See
ADPS: 510, *AVS*: v. 1, 792 f,
AVS: v. 4, 391; not *Dymock*: v. 1, 424 f.
See *GJM* supplement 444, 451,
AVS: v. 1, 187, but *AVS*: v. 3, 1719 =
Ipomoea mauritiana, Jacq, 26, 58
- liquorice (*madhuka*) *Glycyrrhiza glabra*, L.
See *AVS*: v. 3, 84, *Nadkarni*: #1136, 58
- milk-white (*kṣīraśuklā*) An unidentified
plant. *GVDB*: 126: see purple roscoea
and giant potato, 25, 58, 94
- 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), 93
- pondweed (*śaivāla*) *Zannichellia palustris*

- L. or *Zannichellia palustris* L.
Sometimes identified with *dūrvā*.
GVDB: 409, 93
- prickly chaff-flower (*apāmārga*)
Achyranthes aspera, L. See GJM1: 524 f,
AVS: v. 1, 39, ADPS: 44 f, AVS: v. 3,
2066 f, Dymock: v. 3, 135, 25, 58
- purple calotropis (*arka*) *Calotropis*
gigantea, (L.) R. Br. See ADPS: 52,
AVS: v. 1, 341, Nadkarni: #427, Wren
et al. 1994: 57, Chopra's IDG: 305–308,
58
- 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., 93
- spikenard (*jaṭāmāṃsī*) *Nardostachys*
jatamansi DC GVDB: 163, etc, 27
- sun-flowered (*arkapuṣpī*) 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: v. 3, 171. The
etymology of the name suggests
Helianthus annuus Linn., but this plant
is native to the Americas., 93
- sweet plants (*madhuravarga*) The sweet
plants are enumerated at SS 1.42.11. See
also GVDB: 127, 25, 58, 59
- white calotropis (*alarka*) *Calotropis*
procera, (Ait.) R. Br. See
Nadkarni: #428, Chopra, GIMP: 46b,
Chopra's IDG: 305–308, 58
- Withania* (*aśvagandhā*) *Withania*
somnifera (L.) Dunal. See AVS: v. 5,
409 f, Dymock: v. 2, 566 f., Chevallier
150, 25, 58

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