# of the Andrey Klebanov 1022 1jastyk A Translation of the New Edition of the Suśrutasamhitā

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#### **Abstract**

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

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

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## Kalpasthāna, adhyāya 2

#### Manuscript notes

• MS Kathmandu NAK 5-333 has foliation letter numerals, for example on f. 323a, that are similar to MS Cambridge Add. 1693, 100 dated to 1165 CE noted in Bendall's chart of Nepalese letter-numerals Bendall 1883: Lithograph V, after p. 225

<sup>100</sup> Scan at cudl.lib.cam.ac.uk/view/MS-ADD-01693/1.

#### **Translation**

- 1–2 And now I shall explain the chapter on the knowledge of stationary poisons, as was declared by the Venerable Dhanvantari.
  - 3 It is said that there are two kinds of poisons, stationary (*sthāvara*) and mobile (*jaṅgama*). The former dwells in ten places, the latter has sixteen locations.
  - 3 Traditionally, the ten are: root, leaf, fruit, flower, bark, milky sap  $(k \cdot \bar{s} ira)$ , pith  $(s \bar{a} ra)$ , resin  $(niry \bar{a} sa)$ , the element  $(dh \bar{a} tu)$ s, and the tuber.
  - 4 In that context,
    - the eight root-poisons are:
      - liquorice (klītaka)<sup>101</sup>,
      - sweet-scented oleander (aśvamāra)<sup>102</sup>
      - jequirity  $(gu\tilde{n}j\bar{a})^{103}$ ,
      - rauwolfia (sugandh $\bar{a} \rightarrow sarpagandh\bar{a}$ )<sup>104</sup>, a
      - luffa (gargaraka  $\rightarrow$  garāgarī?)<sup>105</sup>,
      - emetic nut  $(karagh\bar{a}ta \rightarrow karah\bar{a}ta? \rightarrow madana)^{106}$ ,
      - leadwort (vidyutsikh $\bar{a} \rightarrow agni$  or rakta-sikh $\bar{a}$ ?) 107, and
      - cannabis  $(vijay\bar{a})^{108}$ ;
  - the five leaf-poisons are:
    - 'poison-leaf' (viṣapatrikā)<sup>110</sup>,

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101 Glycyrrhiza glabra, L.; see AVS 3.84, NK #1136
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<sup>102</sup> Nerium oleander, L.; see ADPS 223, NK #1709

<sup>103</sup> Abrus precatorius, L.; see AVS 1.10, NK #6, Potter 168

<sup>104</sup> Rauvolfia serpentina, (L.) Benth. ex Kurz.?; see NK #2099, ADPS 439; cf. Su.5.5.76-78

<sup>105</sup> Luffa echinata, Roxb.; see NK #1517

<sup>106</sup> Randia dumetorum, Lamk.; see NK #2091

<sup>107</sup> Plumbago zeylanica (or rosea?), L.; see NK #1966, 1967

<sup>108</sup> Cannabis sativa, L.; see AVS 1.356, NK #442

The roots of sweet-scented oleander are highly toxic, as are most parts of the plant. Jequirity does indeed contain a dangerous toxin called Abrin in its seeds and to a lesser extent in its leaves, but apparently not in its roots or bulb. Abrin is not harmful if eaten, but an infusion of the bruised (not boiled) seeds injected or rubbed in the eyes can be fatal (NK). The dose can be quite small. Large doses of the root-extract of rauwolfia can be fatal. In large doses luffa is emetic and a drastic purgative. The roots of both rose and white leadwort are very toxic. It is at present uncertain whether cannabis was known in India at Suśruta's time (meul-sear).

<sup>110</sup> unknown; see?

- 'dangling'  $(lamb\bar{a})^{111}$ ,
- 'choice tree' (varadāru)<sup>112</sup>,
- thorn apple (*karambha*)<sup>113</sup>, and
- 'big thorn apple' (*mahākarambha*)<sup>114</sup>;

#### • the twelve fruit-poisons are:

- kumudvatī (*kumudvatī*)<sup>115</sup>,
- 'little bamboo' (*veṇukā*)<sup>116</sup>,
- thorn apple (*karambha*)<sup>117</sup>,
- 'big thorn apple' (mahākarambha)<sup>118</sup>,
- ribbed gourd (*karkoṭaka*)<sup>119</sup>,
- black cardamom (*harenu*)<sup>120</sup>,
- purple calotropis (*khadyotaka*  $\rightarrow$  *arka*?)<sup>121</sup>,
- carmarī  $(carmar\bar{i})^{122}$ ,
- heliotrope (*ibhagandhā*  $\rightarrow$  *hastiśuṇḍa*?)<sup>123</sup>,
- 'snake-killer' (sarpaghāti)<sup>124</sup>,
- 'gladdener' (nandana)<sup>125</sup>, and
- 'juice-cooker' (sārapāka)<sup>126</sup>;<sup>127</sup>

#### the five flower-poisons are:

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111 unknown; see?
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- 113 Datura metel, L.; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f., ADPS 132.
- 114 Datura metel, L.?; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f., ADPS 132.
- 115 unknown; see?
- 116 Bambusa bambos, Druce?; see NK #307
- 117 Datura metel, L.; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f., ADPS 132.
- 118 Datura metel, L.?; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f., ADPS 132.
- 119 Luffa acutangula, (L.) Roxb.? (Mormodica cochinchinensis, Spreng.? Cf. Luffa tuberosa); see AVS 3.347 (NK #1640, 1643; NK #1520)
- 120 Amomum subulatum, Roxb.?; see PVS Caraka 2.734, AVS 1.128, NK #154
- 121 Calotropis gigantea, (L.) R. Br.; see ADPS 52, AVS 1.341, NK #427, Potter 63
- 122 unknown; see?
- 123 Heliotropium indicum, L.; see AVS 3.136, NK #1203
- 124 unknown; see?
- 125 unknown; see?
- 126 unknown; see?
- 127 Bamboo is not toxic. Heliotrope flowers are abortifacient in large doses.

<sup>112</sup> unknown; see?

- rattan  $(vetra)^{128}$ ,
- wild chinchona (kādamba)<sup>129</sup>,
- black pepper ( $vall\bar{\imath}ja \rightarrow marica$ )<sup>130</sup>,
- thorn apple (*karambha*)<sup>131</sup>, and
- big thorn apple (mahākarambha)<sup>132</sup>;
- the seven bark, pith  $(s\bar{a}ra)$  and resin  $(niry\bar{a}sa)$  poisons are:
  - 'gutboiler' (antrapācaka) 133,
  - 'blade' (kartarīya)<sup>134</sup>,
  - wild mustard (*saurīyaka*)<sup>135</sup>,
  - emetic nut ( $karagh\bar{a}ta \rightarrow karah\bar{a}ta? \rightarrow madana$ )<sup>136</sup>,
  - thorn apple  $(karambha)^{137}$ ,
  - wild asparagus (nandana  $\rightarrow$  bahuputrā?)<sup>138</sup>, and
  - munj grass (*nārācaka*)<sup>139</sup>;<sup>140</sup>
- the three milky sap  $(k \sin a)$ -poisons are:
  - purple calotropis ( $kumudaghn\bar{i} \rightarrow arka?$ )<sup>141</sup>,<sup>142</sup>
- 128 Calamus rotang, L.; see AVS 1.330, NK #413
- 129 Anthocephalus cadamba, Miq.; see NK #204
- 130 Piper nigrum, L.?; see NK #1929; Rā.6.115, Dha.4.85, Dha.2.88
- 131 Datura metel, L.; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f., ADPS 132.
- 132 Datura metel, L.?; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f., ADPS 132.
- 133 unknown; see?
- 134 unknown; see?
- 135 Cleome viscosa, L.? (cf. Rā.4.144); see AVS 2.116, NK #615
- 136 Randia dumetorum, Lamk.; see NK #2091
- 137 Datura metel, L.; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f., ADPS 132.
- 138 Asparagus racemosus, Willd.; see ADPS 441, AVS 1.218, NK #264, IGP 103, IMP 4.2499ff., Dymock 482ff.
- 139 Saccharum bengalense, Retz.?; see NK #2184
- 140 The bark of wild asparagus (*Asparagus racemosus*, Willd.) is toxic.
- 141 Calotropis gigantea, (L.) R. Br.; see ADPS 52, AVS 1.341, NK #427, Potter 63
- 142 The name of this poison, <code>kumuda-ghnī</code>, means 'lotus killer'. In Sanskrit literature, the <code>kumuda</code> lotus is associated with the moon, since it blossoms by night. Since the sun causes this lotus to close, it is therefore an 'enemy' of the lotus. One of the chief words for the sun, <code>arka</code>, is also the name of <code>Calotropis gigantea</code>, which indeed has a milky juice which is a violent purgative, poison and abortifacient.

- oleander spurge (*snuhī*)<sup>143</sup>, and
- 'web-milk' (jālakṣīri)<sup>144</sup>;
- the two element  $(dh\bar{a}tu)$ -poisons are:
  - 'foam-stone' (phenāśma)145, and
  - orpiment  $(harit\bar{a}la)^{146}$ ; 147
- the thirteen tuber-poisons are:
  - jequirity  $(k\bar{a}lak\bar{u}ta)^{148}$ , 149
  - wolfsbane (vatsanābha)<sup>150</sup>,
  - Indian mustard (sarṣapa)<sup>151</sup>,
  - leadwort  $(p\bar{a}laka \rightarrow citraka)^{152}$ ,
  - 'muddy' (kardama)<sup>153</sup>, the
  - 'Virāṭa's plant' (vairāṭaka)<sup>154</sup>,
  - nutgrass (mustaka)<sup>155</sup>,
  - atis root (śrngīvisa)<sup>156</sup>,

- 144 unknown; see?
- 145 unknown; see?
- 146 Arsenii trisulphidum; see NK v. 2, p. 20 ff.
- 147 **Dutt-1922** conjectured that 'foam-stone' may be impure white arsenic obtained by roasting orpiment.
- 148 Abrus precatorius, L.? Cf. RRS 21.14.; see AVS 1.10, NK #6, Potter 168.
- 149 The much later (perhaps sixteenth century) alchemical *Rasaratnasamuccaya* of pseudo-Vāgbhaṭa (21.14) says that the *kālakūṭa* poison, here translated as 'jequirity', is similar to '*kākacaūcu*' or 'Crow's Beak', which is indeed a name for the plant jequirity or *Abrus precatorius*, L., more commonly called *guūjā* (not to be confused with *gaūjā*). The black seed-pod is described as having a 'sharp deflexed beak' in botanical descriptions, so the Sanskrit name is quite graphic and appropriate. The poisonous scarlet seeds of *A. precatorius* can have a distinct black dot or tip, which could perhaps be translated '*kāla-kūṭa*', or 'Black Tip'.

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

- 150 Aconitum napellus, L.; see AVS 1.47, NK #42, Potter 4 f.
- 151 Brassica juncea, Czern. & Coss.; see AVS 1.301, NK #378
- 152 Plumbago zeylanica (indica? rosea?), L.; see Rā. 6.124, ADPS 119, NK #1966, 1967
- 153 unknown; see?
- 154 unknown; see?
- 155 Cyperus rotundus, L.; see ADPS 316, AVS 2.296, NK #782
- 156 Aconitum heterophyllum, Wall. ex Royle; see AVS 1.42, NK #39

<sup>143</sup> Euphorbia neriifolia, L., or E. antiquorum, L.; see ADPS 448, AVS (2.388), 3.1, NK #988, IGP 457b

- sacred lotus (prapuṇḍarīka)<sup>157</sup>,
- radish  $(m\bar{u}laka)^{158}$ ,
- 'alas, alas' (hālāhala)<sup>159</sup>,
- 'big poison' (mahāviṣa)<sup>160</sup>, and
- galls (*karkata*)<sup>161</sup>.<sup>162</sup>

Thus, there are fifty-five stationary poisons.

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

#### The effects of poisons

Root-poisons cause writhing (udvestana), moaning (pralapa), and delirium (moha). Leaf-poison is known for causing yawning, writhing limbs, and wheezing ( $\acute{s}v\bar{a}sa$ ). Fruit-poisons cause swelling of the scrotum, a burning feeling, and a repugnance for food. Flower-poisons will cause vomiting, distension ( $\bar{a}dhm\bar{a}na$ ), and delirium (moha). The use of bark, pith ( $s\bar{a}ra$ ) and resin ( $niry\bar{a}sa$ ) poisons will cause foul-smelling breath, coarseness ( $p\bar{a}rusya$ ), a headache, and a flow of phlegm (kapha). The milky sap ( $ks\bar{a}ra$ )-poisons make one froth, and make the tongue feel heavy. The element ( $dh\bar{a}tu$ )-poisons give one a pain in the chest, make one faint, and cause a burning feeling on the palate. These poisons are classified as ones which are normally lethal after a period of time.

<sup>157</sup> Nelumbo nucifera, Gaertn.; see Dutt 110, NK #1698

<sup>158</sup> Raphanus sativus, L.; see NK #2098

<sup>159</sup> unknown; see Cf. Sodhalanighantu p.43 (sub bola) = stomaka = vatsanābha

<sup>160</sup> unknown; see?

<sup>161</sup> Rhus succedanea, L.; see NK #2136

<sup>162</sup> Leadwort root is a powerful poison. Nutgrass is tuberous, but non-toxic. Atis has highly toxic tuberous roots. Neither sacred lotus nor galls are toxic. The 'alas, alas' poison (hālāhala) is the mythical poison produced from the churning of the ocean at the time of creation: it occurs in medical texts such as the present one, and commentators identify it with one or other of the lethal poisons such as wolfsbane or jequirity. agra-indi makes the intriguing suggestion that the word hālāhala, possibly to be identified with Pāṇini's hailihila (P.6.2.38), may be of Semitic origin, although his evidence seems uncertain (stei-pers cites Persian halāhil 'deadly (poison)' as a loan from Sanskrit). mayr-kurz also cites a claim for an Austro-Asiatic origin for the word.

<sup>163</sup> This is indeed the observed effect of the milky sap of *Calotropis procera*, R. Br. (NK).

#### 11-17 Symptoms of tuber poisoning

The tuber-poisons, though, are severe. I shall talk about them in detail. With jequirity  $(k\bar{a}lak\bar{u}ta)^{164}$ , there is numbness, trembling, and rigidity. With wolfsbane  $(vatsan\bar{a}bha)^{165}$ , there is rigidity of the neck, and the faeces, urine, and eyes become yellow. With Indian mustard  $(sarṣapa)^{166}$ , the wind becomes defective  $(v\bar{a}tavaigunya)$ , there is constipation  $(\bar{a}n\bar{a}ha)$ , and lumps (granthi) start to appear. With leadwort  $(p\bar{a}laka \rightarrow citraka)^{167}$ , everyone agrees that there is weakness in the neck, and speech gets jumbled. With the one called 'muddy'  $(kardama)^{168}$ , there is a discharge (praseka), the faeces pour out, and the eyes turn yellow. With the 'Virāṭa's plant'  $(vairāṭaka)^{169}$ , one's limbs hurt, and one's head becomes ill. With nutgrass  $(mustaka)^{170}$ , one's arms and legs grow stiff, and start to tremble.

- With atis root  $(\dot{s}\dot{r}\dot{n}g\bar{\imath}v\dot{\imath}\dot{s}a)^{171}$ , one's limbs grow weak, there is a burning feeling.
- With sacred lotus (*prapuṇḍarīka*)<sup>172</sup>, one's eyes go red, and one's belly becomes distended.
- 16b With radish  $(m\bar{u}laka)^{173}$ es, one is drained of colour, one vomits, one has hiccups, distension, and passes out.
- 17a With 'alas, alas' (hālāhala)<sup>174</sup>, a man starts, after a while, to gasp and turn brown.
- 17b With 'big poison'  $(mah\bar{a}vișa)^{175}$ , one gets violent knots (granthi) and stabbing pains in the heart.
- 18a With galls  $(karkata)^{176}$ , one leaps up laughing and gnashing one's teeth.
- 19a These thirteen cited poisons which originate from tubers are fearfully

<sup>164</sup> Abrus precatorius, L.? Cf. RRS 21.14.; see AVS 1.10, NK #6, Potter 168.

<sup>165</sup> Aconitum napellus, L.; see AVS 1.47, NK #38, Potter 4 f.

<sup>166</sup> Brassica juncea, Czern & Coss.; see AVS 1.301, NK #378

<sup>167</sup> Plumbago zeylanica (indica? rosea?), L.; see Rā. 6.124, ADPS 119, NK #1966, 1967

<sup>168</sup> unknown; see?

<sup>169</sup> unknown; see?

<sup>170</sup> Cyperus rotundus, L.; see ADPS 316, AVS 2.296, NK #782

<sup>171</sup> Aconitum heterophyllum, Wall. ex Royle; see AVS 1.42, NK #39

<sup>172</sup> Nelumbo nucifera, Gaertn.; see Dutt 110, NK #1698

<sup>173</sup> Raphanus sativus, L.; see NK #2098

<sup>174</sup> unknown; see Cf. Sodhalanighantu p.43 (sub bola) = stomaka = vatsanābha

<sup>175</sup> unknown; see?

<sup>176</sup> Rhus succedanea, L.; see NK #2136

- potent. Experts know them all by these ten features: they are traditionally said to be dry  $(r\bar{u}k sa)$ , hot, sharp, rarified  $(s\bar{u}k sa)$ , fast-acting, pervasive, expansive  $(vik\bar{a}sin)$ , limpid (visada), light, and indigestible.
- Because of their dryness they cause inflammation of the wind; their heat inflames the choler and blood. Because of their sharpness they unhinge the mind, and they cut through the connections with the sensitive points (*marman*). Because of being rarified they infiltrate and disconnect the parts of the body. Because they are fast-acting they kill quickly, and because of their pervasiveness they blend with one's physical constitution (*prakṛti*). Because they expand they destroy the humour (*doṣa*)s, element (*dhātu*)s, and the impurities. Because they are limpid they overflow, because they are light they are difficult to cure, and because they are indigestible they are hard to eliminate. And so they cause long suffering.
  - One can be certain that any poison which is instantly lethal, whether it be stationary, mobile, or artificial, will have all ten of these features.

#### Slow-acting poison

- A poison, whether it be stationary, mobile, or artificial, which has not completely gone from the body, but which is worn out or damaged by anti-toxic medicine, or else dried up by blazing fire, wind, or sunshine, or which has just lost its virulence by itself, becomes a 'slow-acting poison  $(d\bar{u}s\bar{v}isa)$ '. Because it has lost its potency it is no longer lethal. It is surrounded by phlegm (kapha) and has an aftermath that lasts for years.
- If he is suffering from this, his stools and complexion deteriorate, he gets bad breath and a nasty taste in his mouth, and is very thirsty. He faints, vomits, his speech is slurred, and he is depressed. Also, he has the symptoms of contaminated dropsy (*duṣyodara*).<sup>177</sup>
- 28 If it lodges in his stomach (āmāśaya), his wind and phlegm become diseased; if it lodges in his intestines (pakvāśaya), his wind and choler become diseased. The man's hair and body are ruined, and he looks like a bird whose wings have been chopped off.

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

- 29a-c If it lodges in one of the body tissue (*dhātu*)s such as the chyle (*rasa*), it causes the diseases that were described as arising from the elements, and it rapidly becomes inflamed on nasty days which are cold and windy.
- Now listen to the preliminary signs of such a case: sleepiness, heaviness, yawning, slackness (viśleṣa) and exhilaration (harṣa), and a chafing of the limbs (aṅgamarda). Next, it causes food-mania (annamada) and indigestion, appetite-loss (arocaka), round blotches (maṇḍala), skin disease (koṭha), and delirium (moha). The body tissues dwindle away (kṣaya), the feet, hands, and face get swollen, dropsy develops, and there is vomiting and diarrhoea. Perhaps his colour may drain away and he may faint or have irregular fever (viṣamajvara). It may cause heightened, powerful thirst.
  - These various disorders are of many different types: one poison may produce madness, while another one may cause constipation  $(\bar{a}n\bar{a}ha)$ , and yet another may deplete the semen. One may cause slurred speech, while another pallid skin disease (kustha).
  - Traditionally, 'slow-acting poison'  $(d\bar{u}s\bar{\imath}-visa)$  is so called because it corrupts  $(d\bar{u}sayate)$  the body tissue  $(dh\bar{a}tu)s$ . This corruption is caused by repetitively keeping to certain locations, times, foods, and sleeping in the daytime.

#### 34- The stages of slow poisoning

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

- In the second, he trembles, collapses, has a burning feeling, as well as a sore throat. When the poison reaches the stomach  $(\bar{a}m\bar{a}\dot{s}aya)$ , it causes pain in the chest (hrd).
- In the third, the roof of his mouth goes dry, he gets violent shooting pains  $(\hat{sula})$  in the stomach  $(\bar{a}m\bar{a}\hat{s}aya)$ , and his eyes swell up and go a nasty, yellow colour.
- In the fourth shock, it causes the stomach and intestines to sting (*toda*), he gets hiccups, a cough, a rumbling in the gut (*antra*), and his head becomes very heavy.
- 38 In the fifth he dribbles phlegm (kapha), is drained of colour, his joints

- crack (*parvabheda*), all his humours are inflamed, and he also has a pain in his belly (*pakvādhāna*).
- 39a In the sixth, his consciousness is annihilated and he completely loses control of his bowels.
- 39b In the seventh, his shoulders, back and loins break, and he is finished.

#### Remedies for the stages of slow poisoning

- 40 In the first shock of the poison, he should vomit and be sprinkled with cold water. Then he should be made to drink an antidote (*agada*) together with honey and ghee.
- In the second, he should vomit as before, and then be given a purgative to drink.
- In the third, it is good for him to drink an antidote and take a nasal medicine (*nasya*) as well as an eye salve (*añjana*).
- 42a In the fourth, he should drink a medical antidote mixed with oil.
- In the fifth, he should be prescribed the antidote together with a decoction ( $kv\bar{a}tha$ ) of honey and liquorice (madhuka)<sup>178</sup>.
  - In the sixth, the cure is the same as for diarrhoea. And in the seventh, he should have medicated powder blown up his nose, and after having a 'crow's foot ( $k\bar{a}kapada$ )' cut made on his head, he should have a piece of bloody meat put on it.<sup>179</sup>
  - In the intervals between each shock, assuming that the above actions have been performed, one should give the patient cold porridge together with ghee and honey, to take away the poison.
- 45–46 Both kinds of poison are destroyed by a porridge prepared with the stewed juice (*niṣkvātha*) of the following: luffa (*koṣātakya*)<sup>180</sup>,

<sup>178</sup> Glycyrrhiza glabra, L.; see AVS 3.84, NK #1136

<sup>179</sup> Suśruta explains the term <code>avapīḍa</code> 'medicated nasal powder' as the procedure either of administering nasal drops (<code>avapīḍa</code>), or blowing medicated powder into the nose (4.40.44–46): it is particularly recommended for unconscious or incapable patients. The 'crow's-foot' procedure is also recommended later in the 'Section on Procedures' (5.5.24a) in cases of snake-bite. It is also described by Caraka (see p. ?? below).

<sup>180</sup> Luffa cylindrica, (L.) M. J. Roem. or L. acutangula, (L.) Roxb.; see ADPS 252, NK #1514 etc.

migraine tree (agnimantha)<sup>181</sup>, velvet-leaf ( $p\bar{a}th\bar{a}$ )<sup>182</sup>, 'sun-creeper' ( $s\bar{u}ryavall\bar{\iota} \rightarrow j\bar{\iota}vant\bar{\iota}$ ?)<sup>183</sup>, heart-leaved moonseed ( $amrt\bar{a}$ )<sup>184</sup>, myrobalan ( $abhay\bar{a}$ )<sup>185</sup>s, siris ( $sir\bar{\iota}sa$ )<sup>186</sup>, white siris ( $sirit\bar{\iota}sa$ )<sup>187</sup>, selu plum (selu)<sup>188</sup>, white clitoria ( $giry\bar{a}hv\bar{a}$ )<sup>189</sup>, the two kinds of turmeric ( $rajan\bar{\iota}$ )<sup>190</sup>, the two hogweed ( $punarnav\bar{a}$ )<sup>191</sup>s (red and white), black cardamom (harenu)<sup>192</sup>, the three pungent spices (trikatu) (dried ginger ( $sunth\bar{\iota}$ )<sup>193</sup>, long pepper ( $pippal\bar{\iota}$ )<sup>194</sup>, and black pepper (marica)<sup>195</sup>), the two Indian sarsaparillas ( $s\bar{a}rive$ ) (country sarsaparilla ( $anant\bar{a}$ )<sup>196</sup> and black creeper ( $p\bar{a}lind\bar{\iota}$ )<sup>197</sup>) and country mallow ( $bal\bar{a}$ )<sup>198</sup>.

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

There is a famous ghee called 'Invincible' (ajeya). It rapidly destroys all poisons and 'always conquers'. It is made with a mash (kalka) of the following plants: liquorice (madhuka)<sup>199</sup>, Indian rose-

<sup>181</sup> Premna corymbosa, Rottl.; see IMP 1927, ADPS 21, NK #2025, AVS 4.348; GJM 523: = P. integrifolia/serratifolia, L.

<sup>182</sup> Cissampelos pariera, L.; see ADPS 366, NK #592, GJM 573, IMP 1.95; cf. AVS 2.277

<sup>183</sup> Holostemma ada-kodien, Schultes; see ADPS 195, AVS 3.167, NK #1242, IMP 3.1619

<sup>184</sup> Tinospora cordifolia, (Willd.) Hook.f. & Thoms.?; see ADPS 38, NK #2472 & 624, Dastur #229

<sup>185</sup> Terminalia chebula, Retz.; see ADPS 172, NK #2451, Potter 214

<sup>186</sup> Albizia lebbeck, Benth.; see AVS 1.81, NK #91

<sup>187</sup> Albizia procera, (Roxb.) Benth.; see GVDB 98, NK #93

<sup>188</sup> Cordia myxa, L. non Forssk.; see GJM 529 (2), IGP 291b, cf. IMP 3.1677f; cf. AVS 2.180 (C. dichotoma, Forst.f.), NK #672 (C. latifolia, Roxb.)

<sup>189</sup> Clitoria ternatea, L.; see AVS 2.129, NK #621

<sup>190</sup> Curcuma longa, L.; see ADPS 169, AVS 2.259, NK #750

<sup>191</sup> Boerhaavia diffusa, L.; see ADPS 387, AVS 1.281, NK #363

<sup>192</sup> Amomum subulatum, Roxb.?; see PVS Caraka 2.734, AVS 1.128, NK #154

<sup>193</sup> Zingiber officinale, Roscoe.; see ADPS 50, NK #2658, AVS 5.435, IGP 1232

<sup>194</sup> Piper longum, L.; see ADPS 374, NK #1928

<sup>195</sup> Piper nigrum, L.; see ADPS 294, NK #1929

<sup>196</sup> Hemidesmus indicus, (L.) R. Br.; see ADPS 434, AVS 3.141-5, NK #1210

<sup>197</sup> Ichnocarpus frutescens, (L.) R.Br. or Cryptolepis buchanani, Roemer & Schultes; see AVS 3.141, 3.145, 3.203, NK #1283, #1210, ADPS 434

<sup>198</sup> Sida cordifolia, L.; see ADPS 71, NK #2297

<sup>199</sup> Glycyrrhiza glabra, L.; see AVS 3.84, NK #1136

bay  $(tagara)^{200}$ , costus  $(kustha)^{201}$ , deodar  $(bhadrad\bar{a}ru)^{202}$ , black cardamom  $(harenu)^{203}$ , Alexandrian laurel  $(punn\bar{a}ga)^{204}$ , cherry  $(elav\bar{a}luka)^{205}$ , cobra's saffron  $(n\bar{a}gapuspa)^{206}$ , water-lily  $(utpala)^{207}$ , white clitoria  $(sit\bar{a} \rightarrow \acute{s}vet\bar{a}?)^{208}$ , embelia  $(vidanga)^{209}$ , sandalwood  $(candana)^{210}$ , cassia cinnamon  $(patra)^{211}$ , 'going-to-my-darling'  $(priy-angu)^{212}$ , rosha grass  $(dhy\bar{a}maka)^{213}$ , the two turmerics (ordinary turmeric  $(rajan\bar{t})^{214}$  and Indian barberry  $(d\bar{a}ruharidr\bar{a})^{215}$ ), the two Indian nightshade  $(brhat\bar{t})$ s (poison berry  $(brhat\bar{t})^{216}$  and yellowberried nightshade  $(ksudr\bar{a})^{217}$ ), the two Indian sarsaparillas  $(s\bar{a}rive)$  (country sarsaparilla  $(anant\bar{a})^{218}$  and black creeper  $(p\bar{a}lind\bar{t})^{219}$ ), beggarweed  $(sthir\bar{a} \rightarrow \acute{s}\bar{a}laparn\bar{t})^{220}$ , and 'spotted-leaf'  $(sah\bar{a} \rightarrow pr\acute{s}niparn\bar{t})^{221}$ .

200 Tabernaemontana divaricata (L.) R.Br. ex Roem. & Schultes.; see GJM 557, AVS 5.232

<sup>201</sup> Saussurea costus, Clarke; see NK #2239

<sup>202</sup> Cedrus deodara, (Roxb.ex D.Don) G. Don; see AVS 41, NK #516

<sup>203</sup> Amomum subulatum, Roxb.?; see PVS Caraka 2.734, AVS 1.128, NK #154

<sup>204</sup> Calophyllum inophyllum, L.; see AVS 1.338, NK #425

<sup>205</sup> Prunus cerasus, L.?; see BVDB 58, NK #2037

<sup>206</sup> Mesua ferrea, L.; see NK #1595

<sup>207</sup> Nymphaea stellata, Willd.; see GJM 528, IGP 790; Dutt 110, NK #1726

<sup>208</sup> Clitoria ternatea, L.; see AVS 2.129, NK #621

<sup>209</sup> Embelia ribes, Burm. f.; see ADPS 507, AVS 2.368, NK #929, Potter 113

<sup>210</sup> Santalum album, L.; see ADPS 111, NK #2217

<sup>211</sup> Cinnamomum tamala, (Buch.-Ham.) Nees; see AVS 2.84, NK #

<sup>212</sup> Callicarpa macrophylla, Vahl.; see AVS 1.334, NK #420

<sup>213</sup> Cymbopogon martinii (Roxb.) Wats; see AVS 2.285, NK #177

<sup>214</sup> Curcuma longa, L.; see ADPS 169, AVS 2.259, NK #750

<sup>215</sup> Berberis aristata, DC.; see Dymock 1.65, NK #685, GJM 562, IGP 141

<sup>216</sup> Solanum violaceum, Ortega; see ADPS 100, NK #2329, AVS 5.151

<sup>217</sup> Solanum virginianum, L.; see ADPS 100, NK #2329, AVS 5.164

<sup>218</sup> Hemidesmus indicus, (L.) R. Br.; see ADPS 434, AVS 3.141-5, NK #1210

<sup>219</sup> Ichnocarpus frutescens, (L.) R.Br. or Cryptolepis buchanani, Roemer & Schultes; see AVS 3.141, 3.145, 3.203, NK #1283, #1210, ADPS 434

<sup>220</sup> Desmodium gangeticum (L.) DC; see Dymock 1.428, GJM 602, NK #1192; ADPS 382, 414 and AVS 2.319, 4.366 are confusing

<sup>221</sup> Uraria lagopoides, DC; see GJM 577, Dymock 1.426, IMP 1.750ff., NK #2542; ADPS 382, AVS 2.319 4.366 are confusing

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

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

Take long pepper  $(pippal\bar{\imath})^{222}$ , rosha grass  $(dhy\bar{a}maka)^{223}$ , spikenard  $(m\bar{a}ms\bar{\imath})^{224}$ , lodh tree  $(s\bar{a}vara \rightarrow lodhra)^{225}$ , nutgrass  $(paripelava \rightarrow plava \rightarrow must\bar{a}?)^{226}$ , soda crystals  $(suvarcik\bar{a} \rightarrow suvarjik\bar{a})^{227}$ , cardamom  $(s\bar{u}ksmail\bar{a})^{228}$ , 'scented pavonia'  $(toya \rightarrow b\bar{a}laka)^{229}$ , and 'gold-chalk' ochre (kanakagairika). This antitoxin, taken with honey, eliminates 'slow-acting poison'. It is called 'slow-acting poison antidote  $(d\bar{u}s\bar{i}vis\bar{a}ri)$ ', and there is no situation where it is not recommended.

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

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

<sup>222</sup> Piper longum, L.; see ADPS 374, NK #1928

<sup>223</sup> Cymbopogon martinii (Roxb.) Wats; see AVS 2.285, NK #177

<sup>224</sup> Nardostachys grandiflora, DC.; see NK #1691

<sup>225</sup> Symplocos racemosa, Roxb.; see ADPS 279, NK #2420

<sup>226</sup> Cyperus rotundus, L.; see ADPS 316, AVS 2.296, NK #782

<sup>227</sup> Sodium carbonate; see NK 2, p. 101

<sup>228</sup> Elettaria cardamomum, Maton; see AVS 2.360, NK #924, Potter 66

<sup>229</sup> Pavonia odorata, Willd.; see ADPS 498, NK #1822

#### **Abbreviations**

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