THE WONDER ÄYURVEDIC DRUG LAKŞMAŅĀ FOR PROGENY: A HISTORICAL APPRAISAL

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In Vedic literature there is no reference of laksmaṇā to be used for infertility, while in Äyurvedic Saṃhitās Caraka does not mention it in Puṃsavana Karma. Lakṣmaṇā, the name given to this drug, seems to have been coined originally for the particular plant due to its possessing some special marks on some of its part and/or causing prosperity. Later on, one more clue for its identification was given that it possesses red marks on leaves. Further, commentators and authors tried to identify the drug by adding more and more characters and synonyms which were applicable to the plants which they had seen or used personally or on some imagination. It is quite possible that all the characters combined together may not be applicable to one plant but may be the characters of different plants. Modern scholars, beginning from the later half of the 19th century equated this with Mandrake plant which is a famous drug of Europe to which all sorts of imaginary and fictitious legends were attributed. Further, Jaikrishnaji Indraji, famous botanist of Gujarat, suggested hanumānavela (Ipomoea sepiaria Koen.) as its source which was accepted by Bapalal. Chunekar suggested for Chinese wonder drug, Ginseng as lakṣmaṇā. Many more plants have been suggested by other authorities but none could be proved to be correct. This is clearly apparent from the review of literature on lakṣmaṇā.

Introduction

Lakşmanā is a well-known drug in Āyurvedic literature. It is mentioned for pumsavana. It changes the sex of foetus, maintains a healthy pregnancy and cures infertility. Because of these facts, it has drawn the attention of almost all the Āyurvedic and other scholars from time to time. But, unfortunately this drug is still controversial due to non-availability of such drug in which the morphological features given by ancient scholars are applicable. Therefore, different plants were suggested by different scholars from time to time on the basis of some similar characters and properties. An exhaustive review of the available literature has been done and Panax quinquefolia (Aralia quinquefolia) has been suggested as the most suitable source of lakşmanā.

REVIEW AND DISCUSSIONS

In the Vedic literature, only one reference of lakşmaṇā is observed which is not for procreation. The other reference which has been suggested to be for lakşmaṇā

is actually for pṛśniparṇī.² This is also not in relation with puṃsavana. However, white flowered siṃhī and bṛhatī have been used for this purpose.³ This shows that lakṣmaṇā was not popular in the Vedic period but śweta kaṇṭakārī was well-known for its use in puṃsavana. Macdonell and Keith⁴ and Suryakant⁵ have not mentioned lakṣmaṇā in their Vedic kośas.

In the Ayurvedic Samhitā period, Caraka has described laksmanā in the group of vegetables⁶ whereas Suśruta suggests to use it variously as nasya for pumsayana, by ladies, to be administered on the second day to a new born child in a ghrta preparation, and to bear it on the body to ward off the ill effects of demons etc.7 The other two samhitās, viz. Astānga Samgraha8 and Astānga Hrdaya9 have mentioned for both the uses, i.e. as vegetable and as a drug. Why Caraka did not mention its use as a drug for procreation? This is clarified by some commentators by equating the $amogh\bar{a}$ of Praiasthapana group of drugs mentioned in Caraka with laksmana. 10 Similarly, laksmi mentioned in Susruta is also equated with laksmanā which is a multi-meaning name. 11 But again a question arises why Susruta did no use it as a vegetable? This shows that either the vegetable and the drug were derived from separate plants or the leaves were used as vegetable and the root as a drug of the same plant. The later seems to be more reasonable. Some commentators like Indu¹² and Yogindra Nath Sen¹³ have suggested madhuvasti as the vegetable laksmanā which does not seem to be correct because the root of madhuyasti which is used in medicine was imported. In punsavana, apart from laksmanā, other drugs including brhatī have been used in sanihitās. 14 Laksmanā being a name of female crane¹⁵ may suggest that either the drug is white in some of its part or it is like the shape of a crane. These are the only hints towards its morphology available from the earliest literature.

The root meaning of *lakşmanā* suggests that the plant must have some special marks or signs¹⁶ by which it can be identified and possesses some special property giving prosperity¹⁷.

Lakşmanā is suggested to be used into two forms, viz. powder and suspension (prepared either in cow's milk or water) and the route of administration is oral or nasal (either right or left according to the desire of having a male or female child). Usually 3-4 drops of the juice obtained by maceration of the root of lakşmanā has been suggested for use by nostril but Aşṭanga Samgraha, in addition, has suggested to use the pulp of the root in a dose equal to udumbara (fruit of Ficus glomerata Roxb.) orally. Kāśyapa has suggested to use it by the lady before sexual act¹⁹. Usually it is recommended for pumsavana karma.

In Cikitsā granthas, laksmanā and śweta bṛhatī or śweta kanṭakārī have been recognised for the treatment of infertility and for puṃsavana karma²⁰⁻³⁰. Some of these authors have used this drug as a single drug therapy while others have included these in some preparations. Puṣyānuga cūrṇa, kalyāṇa ghṛta and phala ghṛta are some of the important preparations which include these drugs. Bhaiṣajya Ratnāvalī has mentioned

different preparations of $laksman\bar{a}$, some of which contain large amount of it³¹. This shows the availability of $laksman\bar{a}$ easily during that period. Some authors have suggested to use $laksman\bar{a}$ in place of $ambasth\bar{a}$. In some books, $laksman\bar{a}$ is described as having circular marks on it³²⁻³³.

In most of the nighantus utility of lakşmanā and śweta kantakārī in female diseases has been given^{34–42}. The oldest Astānga Nighantu mentions that lakşmanā possesses red spots on the leaves⁴³. Most of the nighantus have quoted the same verse of Dalhana⁴⁴ regarding its description. The root of nīlakantha (mayūrašikhā) has been recommended as the substitute by Bhāvamiśra⁴⁵. It is well known that for helping to identify the plant which became a necessity due to urbanization and lack of contact with nature, several synonyms were coined in the later period, e.g. raktabinducchadā, bastagandhākrti, bindupatrā, durālabhā, kantakāri, kṣetradūtī, lakṣmī, nāginī, putradā, putrakandā, raktā, šūlinī, tūlinī, kapateśwarī, kumārtikā, kṣetradūtikā, garbhadā, candrapuṣpā, priyankarī etc. Some of the synonyms seem to be applicable to both, i.e. lakṣmaṇā and śweta kantakārī⁴⁶.

All the ancient commentators (upto 18th centuary A.D.) accept the *laksmaṇā* for infertility. Some commentarors also have given some morphological features to identify the plant. Cakrapāṇi's comment that it is well-known by the same name¹⁷ suggests that either it was a commonly known plant or more correct, he had no definite idea about it.

The first addition towards the morphological features apart from the etymology (which suggests that it has some marks), is from Aṣṭāṅga Nighanṭu (8th centuary A.D.) which has added that the marks are of red colour on leaves⁴⁸. Dalhaṇa has given more details.

Accordingly, it is a plant like bastagandhā having leaves marked with red spots of the shape of mini-human form and which helps to get a male child49a. The description given by Dalhana along with a variant replacing 'chada' (leaves) by 'sada' (always) has been used by modern authors to identify laksmana with different species by interpreting the meaning of this verse in different ways. 'Putrakākāra' has been applied to the part (root) instead of to the red spots. Any plant found useful for helping in conception was attempted to be proved as laksmana on the above characters or even by adding a few more synonyms, depicting some new characters which were present in the plant being considered for proving as laksmanā. In addition to verse of Dalhana, Adhamalla (16th centuary A.D.) mentions that lakşmanā flowers during the śarat (autumn) season and gives fruit thereafter. It should be collected under the influence of Pusya, Mūla or Hasta stars after enchanting mantrās486. Madanpāla Nighantu has added that it has milky white flowers, it is a hairy climber and it (the part used) resembles laksmanā (crane) in shape50. Bastagandhā (ajagandhikā), to which laksmanā resembles itself is not well identified. It is considered to be a plant of Labiatae family, being described as a variety of barbari by Bhāvaprakāša51a. Others equate it with

hulahula or yavānī or a wild yavānī^{51b}. Putrakākandā (Rājanighanṭu) indicates that the tuber is like a human form⁵². Sodhala Nighanṭu accepts that it has white flowers⁵³. In Abhidhānaratnamālā after the description of lakṣmaṇā another drug 'śūlinī', having nāginī, lakṣmī and matsyākṣī as its synonyms, is described⁵⁴. This is clearly a separate drug according to this Nighanṭu, but it seems that later compilers have included this or some of the synonyms with lakṣmaṇā. Bhāvamiṣra has described lakṣmaṇā and ṣweta kaṇṭakārī both in the Nighanṭu part⁵⁵; but has suggested to use the śifā (root) of nīlakaṇṭha as a substitute for lakṣmaṇā in 'niiṣra-varga', which has been equated as mayūraśikhā by the author himself⁵⁶. Nīlakaṇṭha is also not a commonly known plant and mayūraśikhā is also a controversial drug. Many synonyms added by the later nighantus seem to be applicable to the white flowered kantakārī.

The oldest botanical identification of lakşmanā as mandrake (Mandragora sp.) seems to be quoted by Watt⁵⁷. This has been followed by Dymock⁵⁸ and his followers like Desai⁵⁹ etc. Much imaginary and fictitious legends prevailed around this plant of Europe. It was taken out of the ground with the help of a dog with a belief that it may cause danger to the person digging the plant. It was supposed to be having root like a human form⁶⁰. One or two species of this genus are reported to grow in India and possess narcotic properties. The importance of this plant seems to have declined when it was correctly identified with particular species and the properties worked out.

The next plant which got much support was first suggested by the famous botanist of Gujarata, Jaikrishna Indraji⁶¹. This is known as hanumānavela in Gujarata due to similarity of its fruits with gadā (mace). The leaves are reported to possess reddish spots and the local people use the seeds of this climber for removing sterility. Bapalal, however, seems to have supported this plant as lakṣmaṇā in his earlier works⁶²; but later he changed his ideas and started to support ginseng⁶³. Kirtikar and Basu⁶⁴ have mentioned lajjālu (Biophytum sensitivum DC.) for lakṣmaṇā, which is accepted by Biswas⁶⁵.

Chunekar⁶⁶ proposed to equate Lakṣmaṇā with the Chinese wonder-drug ginseng (Aralia quinquefolia) on the basis that the root is like a small human form (putrakākāra) and possesses wonderful properties. It is not clear that whether the leaves have any spots, but some species of Aralia or Panax which is the source of ginseng are reported to be used as ornamental plants for their foliage. In some cikitsā granthas⁶⁶⁻⁶⁹, the character of lakṣmaṇā is given that it is having only cakras (circles or rings) which is supported by the description of ginseng given by Lucas⁷⁰. There are different varieties of ginseng. In Nepal, traditionally, this ginseng is used as lakṣmaṇā by the name of renśen. Bapalal⁷¹ also appears to have supported this identification in his latest work on Bṛhattrayī. Some authors have suggested Smithia geminiflora Roth., as lakṣmaṇā.⁷² Sharma⁷³ has proposed a new plant Cynoglossum lanceolatum Forsk, known as putariākanda in Madhya Pradesh and used tṛaditionally for similar purpose.

CONCLUSION

The critical review suggests that it is not possible to identify laksmana correctly and to the full satisfaction, taking into consideration the different views of commentators and nighantus. On the basis of some available clues, ginseng seems to be quite nearer to laksmanā. However, after screening experimentally and assessing clinically, all the plants suggested as laksmanā in books as also the plants reported to possess fertility action after extensive field survey, it may be possible to establish a definite view for laksmana. During the course of experimental process, it may be quite possible that a better plant may be found useful for procreation and change of sex in foetus. Nighanfus have described tubers other than laksmanā having such properties.

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