



Review Article

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SONITA-STHAPANA MAHAKASHAYA: A CRITICAL REVIEW

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ABSTRACT

Āyurveda is a great science and have very enormous ancient literature in Saṁskṛita language like bṛhatrayī and laghutrayī. Many of Āyurveda concepts and terms have not been recognized yet due to its intricacy. One such type of term is śoṇita-sthāpana. Śoṇita-Sthāpana term is given by Ācārya Charaka in the context of Mahākaśāya. This review is based on different commentaries on Āyurveda text and different modern text and information available on internet. On the basis of the review it is clear that śoṇita-sthāpana is a broad term which includes 'rakta-prasādana', 'rakta-Stambhana' and 'rakta-varadhana' property. Some of drugs of this Mahākaśāya are having all three properties, others having one or two, and acts accordingly.

Keywords: Śoṇita-Sthāpana Mahākaśāya, rakta-prasādana, rakta-Stambhana and rakta-varadhana

INTRODUCTION

Āyurveda, the ancient science of life stresses upon the maintenance of health through its preventive and curative aspects. It is one of the richest heritages of the world. Principles and guidelines of this heritage are laid by the Vedas, which are considered as the first available literature of the world¹. Most of the concepts and treatment methods of Āyurveda are philosophical and empirical. Despite of empirical and philosophical touch it is too scientific.

Āyurveda have a very huge ancient classical literature of Saṁskṛita language. Many commentaries are also available on some important text like bṛhatrayī and laghutrayī. Due to language obscurity and different understandings of commentators many of Āyurveda concepts and terms have not well understood yet. Although a number of commentaries are available, still Āyurveda is an obscure science. So it is the need of time to understand and evaluate our science on various scientific backgrounds to unearth the hidden concepts and principles of Āyurveda. This will truly enhance the scope of Āyurveda in the preventive and curative health care system.

One such term is śoṇita-sthāpana.

Ācārya Charaka has described fifty Mahākaśāya on the basis of different pharmacological actions. Śoṇita-Sthāpana term is given by Ācārya Charaka in the context of Mahākaśāya. Śoṇita-Sthāpana Mahākaśāya comprises ten drugs namely - Madhu, madhuka, Rudhira, Mocha rasa, Mṛtkapāla, Lodhra, Gairika, Priyaṅgu, Śarkarā and lājā².

The term Śoṇita-sthāpana has been interpreted by Chakrapāṇi as that which brings recovery of impure blood by eliminating its impurity whereas in the opinion of Ācārya Gaṅgādhara, Śoṇita-sthāpana term also includes Rakta Stambhana action. Many of different commentators also express their views in different

manner. This paper reviews Śoṇita-sthāpana to evaluate extents of the term.

Derivation of śoṇita and Sthāpana terms

The word, Śoṇita is derived from the root word 'śoṇa' (means complexion of body) with the suffix 'ktaḥ'³. Śoṇita is that which is responsible for the complexion of the body. It is synonym of rakta as per Amarakoṣa. The word Rakta is derived from the root 'Raṅja Rāge' (to colour) with the suffix 'ktaḥ'⁴. Rakta is that, by which anything is made coloured i.e. 'raṅjateraktavarṇamkriyateanaitiraktam'. Synonyms of Rakta (in Amarakoṣa) are Rudhira, Lohita, Śoṇita, Asra, Asṛk etc.

The word Sthāpana means 'Ropanam' as per shabdkaalpdrum⁵. According to Sir Monier Williams meaning of Sthāpana word is maintaining, preserving or a means of stopping (the flow of blood) or styptic⁶.

Comments on śoṇita– Sthāpana

Śoṇita-Sthāpana term is coined by Charaka in Sutra sthāna chapter 4 in context of Mahākaśāya. Suśruta is used a similar term "Śoṇitāsthāpana" in Chikitsa sthāna, chapter 1 in the context of ṣaṣṭi-upakrama of Vraṇa. Suśruta said that Śoṇitāsthāpana should be done in the case of excessive bleeding means haemostatic. Vagbhata used a different terminology Rudhiraśamsthāpana. Afterwards different commentators have given their comments on this term, as following –

1. Cakrapāṇi

Śoṇitasadyaduṣṭyaduṣṭimaphṛtya tat prakṛtausthāpayatī śoṇita-sthāpanam⁷.

Which restore blood in its pure form after eliminating vitiated doṣas. It emphasizes on the maintaining the Raktadhātu in its optimum form.

2. Gaṇagādhara

Śoṇitasthāpanānīduṣṭaśoṇitamśamyakduṣṭimaphartyaprakṛtausthāpayantīnabāhīrgamayantītibāhīrgacchaccaśoṇitam saṅgrahaṇantī⁸.

Thus he establishes Śoṇita-Sthāpana as all the combined actions which results in purification as well as coagulation of Rakta.

3. Yogīndranātha sena

Śoṇitamsthāpayatiatipravṛttamstambhayatī śoṇitasthāpanam⁹

Śoṇita-Sthāpana is which checks or stops excessive bleeding.

4. Śivadāsa sena

Śoṇitasthāpanaitivikṛtamśoṇitamvikṛtimaphartyaprakṛtausthāpayatīśoṇitasthāpanaḥ

Which purify the vitiated blood and keep it in its natural form.

5. Ḍalhaṇa

śoṇitāsthāpanamśoṇitātīpravṛtistambhanam¹⁰

Means which stops excessive bleeding.

6. Indu

Indu comments on the word rudhiraśmsthāpana¹¹
rudhiraśmsthāpanampuruṣasyarudhiravṛddhi-sthairyakaram

This increases the blood and also keeps it in its natural form

Chakrapāṇi and Śivadāsa sena interpret this as action which clears the impurities of blood and keep it in its natural form. Yogīndranātha sena and Ḍalhaṇa interprets it as action which is related to coagulation. Gaṇagādhara comprises both views in his statement. But according to Indu Śoṇita-sthāpana is which increases the blood and also keeps it in its natural form. On the basis of these statements of commentators, it can be said that śoṇita-sthāpana covers three areas –

1. Rakta-prasādana – which clear the impurities or vitiation in the blood
2. Rakta-Stambhana – which stop the bleeding conditions
3. Rakta-varadhana – which increases the blood.

Rakta-prasādana

The word prasādana means prasannatākārakam¹². Vitiated Blood which remains in the body after Raktavisrāvaṇa (Venesection), should be treated by rakta-prasādana karma, as said by Ācārya Vāgabhaṭṭa¹³. Arunadatta comments, rakta-prasādana is that which rinse out the impurities of blood (Kaluṣatāmparityajyatasyaprasannatvamupapādayet)¹⁴. Charaka and Vagbhata both said in vātaśoṇita Chikitsa that after treating the ādhyavāta, rakta-prasādana karma should be done¹⁵.

Ācārya Suśruta told one of the benefits of snāna (bathing) is raktaprasādana¹⁶. Ācārya Vagbhata quoted kaṣāya rasa as asra-viśodhana¹⁷, Hemadri comments on it that asra- viśodhana is rakta-duṣṭihara¹⁸ means that which purifies the blood.

Drugs which purify the blood by pacifying different doṣas and diseases can be called as rakta-prasādana. These are act as purifiers that's why also called as rakta-śodhana. Some examples of these drugs are mañjiṣṭhā, sārivā, plants of kākolyādi, sārivādi, aṅjanādi, and utpalādigāṇa act as blood purifiers by different mode of actions. Some of them directly act on blood and some pacifies the pitta doṣa because of pitta and rakta having similar properties.

The drugs which are used in skin disorder (kuṣṭhavyādhi) act as rakta- prasādaka. These drugs are having pitta and raktaśāmaka properties.

Rakta-Stambhana

The word Stambhana means 'jaḍīkaraṇam¹⁹. According to Śārīngadhara, drugs which increase Vāta by their Rukṣa (dry), Śīta (cold), kaṣāya (astringent), and Laghupāka (undergoing quick digestion) properties are stambhana²⁰.

According to Ācārya Charaka, the treatment which checks what is flowing and stabilizes what is unstable is called the stambhana²¹. He describes the properties of Stambhana drugs also. Drugs which are having Śīta (cold), manda (Sluggish), mṛdu (soft), Ślakṣṇa (smooth), Rukṣa (dry), sūkṣma (subtle), drava (liquid), sthira (stable), laghu (light) properties are act as stambhana²² (astringent).

Yogīndranātha sena and Ḍalhaṇa interpret the term śoṇita-sthāpana as śoṇitātīpravṛti Stambhana means which stop excessive bleeding.

Ācārya Suśruta describes four methods of preventing blood loss, these are²³

1. Sandhāna - Joining the edges of the wound, unification of instrument- made wound.
2. Skandana- Promoting clotting. It is done by drugs having kaṣāya (astringent) rasa such as lodhra, Vaṭa etc. Others, however, take haritaki, Panchavalkala ash of linen etc.
3. Pācana – Digestion
4. Dahana- Burning/ Cauterization of wound.

Astringent drug unifies the wound, ice-cold coagulates blood, ash desiccates, and cauterization causes contraction of blood vessels (Vasoconstriction).

In order to check hemorrhage, at first measures of coagulation (e.g. cold pack) should be adopted. If by this blood does not coagulate then astringent drugs like haritaki or Panchavalkala should be applied. In case by measures of unification bleeding does not stop, then desiccating ash should be applied, if all these measures are unable to check hemorrhage then lastly the part should be cauterized in order to stop bleeding.

Rakta-varadhana

Drugs which increase Rakta Dhātu can be said that as rakta-varadhaka. Rakta has Pañcabhautika property with the predominance of Agni and jala²⁴, so that it has been told 'anusṇāṣita'²⁵. So drugs which are having predominance of Agni and Jala Mahābhūta, increases Rakta Dhātu. It can be inferred that Āgneya dravya responsible for increasing blood corpuscles and Jalīya dravya are responsible for increasing blood plasma.

Charaka says that blood is increasing blood itself²⁶. In ancient time, in the condition of rakta-kṣaya, blood of living animals was used for drinking²⁷.

In the condition of excessive hemorrhage Suśruta has told that the patient should be managed carefully with the diet not too cold, light, unctuous, hematinic and with slight or without sour. So, this type of diet also helps in increasing blood²⁸.

Drugs of ſoṅita –Sthāpana mahakashaya

There are 10 drugs in ſoṅita-Sthāpana Mahākāṣāya– Madhu, Madhuka, Rudhira, Mocarasa, Mṛtkapāla, Lodhra, Gairika, Priyaṅgu, Śarkarā and Lājā

Madhu (Honey)

Madhu is having Madhura (sweet) and kaṣāya (astringent) rasa (taste), Rukṣa (dry) Guṇa (property), and ſīta (cold) Vīrya (potency) and having Pitta pacifying and Sandhāna (~conjunction) property²⁹. Madhu is used as Anupāna (vehicle) for various anna (food) and Auśadha (drug) in treatment of rakta pitta (bleeding disorder)³⁰. Suśruta also used honey in raktātīsruta (excessive blood loss) condition, Kākolyādi group of drugs decoction with sugar, honey and other drugs having Madhur (sweet) rasa are prescribed for internal use³¹. Daily consumption of honey reduced the cholesterol count in blood. Honey also normalizes the WBC levels in blood. It also increases the capacity of phagocytosis of WBCs. Daily consumption of Honey also increases RBC count and thrombocytes count³². Thus, it is having properties of Rakta prasādāna, Rakta Stambhana and Rakta vardhana also.

Madhuka (*Glycyrrhiza glabra* Linn.)

Madhuka is Madhura (sweet) in rasa (taste), ſīta (cold) in Vīrya (potency) and having pitta pacifying properties³³. It is one of the drugs of Madhura skandha (group of drugs having sweet taste)³⁴. It is use in various bleeding conditions, internally and externally both in bṛhatrayī (the great treatise of Āyurveda – Charaka Saṁhitā, Suśruta Saṁhitā and Ashtanga Hridaya)³⁵⁻³⁸. It is also mentioned in various pittaja and Raktaja disorders like Kuṣṭha and Visarpa. Licorice studied *in vivo* resulted to increase in body weight, increase in liver enzymes, decrease the total cholesterol and increase blood urea and creatinine. Licorice shows effect on blood components like improves WBC's and RBC's counts, increase hemoglobin and blood platelets³⁹. So It is having properties of Rakta prasādāna, Rakta Stambhana and Rakta vardhana.

Rudhira (*Crocus sativus* Linn.)

Rudhira or kuṅkuma is katu (pungent), tikta (bitter) in rasa (taste), snigdha (unctuous) in Guṇa (property), katu (pungent) in Vipāka, ushna (hot) in Vīrya (potency)⁴⁰. Kuṅkuma is used in treatment of Vātaṣoṅita and ViṣaChikitsa as ingredient of different formulations and having Varnya (beneficial for skin complexion) property as it improves complexion, useful in hyper pigmented spots. *C. sativus* enhances WBC count, Eosinophils and lymphocyte percentage in blood but neutrophil number is decreased. This study also indicates the preventive effect of the extract of *C. sativus* and its constituent, Safranin on WBC count in blood⁴¹. Crocin, one of the constituents of saffron was shown to produce hypolipidaemic effect in the dose range of 25 mg/kg to 100 mg/kg body weight in diet-induced hyperlipidemic rats by inhibiting pancreatic lipase thereby leading to malabsorption of fat and cholesterol producing hypolipidaemic effect⁴². Thus, it acts as Rakta Prasādaka (blood purifier) and rakta vardhaka agent.

Mocarasa (Latex of *Salmaliamalā barca* Schott and Endl.)

Mocarasa is kaṣāya (astringent) in rasa (taste), laghu (light), snigdha (unctuous), Picchila (slimy) in Guṇa (properties), ſīta (cold) in Vīrya (potency) and having Stambhana (Haemostatic), vṛaṇa-ropaṇa (wound healing) properties⁴³. Mocarasa is used as styptic agents in Charaka Saṁhitā. It is used for treatment of nasal bleeding as nasal drops⁴⁴. It is also used for the treatment of bleeding piles⁴⁵ and diarrhea⁴⁶ also. Mocarasa is having astringent, demulcent, styptic properties and used for Diarrhoea, Dysentery, Hemoptysis, bleeding piles, menorrhagia, spermatorrhoea⁴⁷. The Mocarasa is containing large amounts of tannic and Gallic acids acting as astringents which precipitate proteins which helpful in restoring the damaged epithelial mucosal lining of the ulcerated mucosa^{48,49}. Thus it is having protective Effect in Inflammatory Bowel Disease. Thus, mocha rasa is having Rakta Stambhana property.

Mṛtkapāla

Mṛtkapāla is broken piece of mud pot. Mud or soil is used as external application not for internal purpose. In many of skin disorders mud is used for external application. Water, made by sweating red hot soil clod over night in cold water, is used internally in treatment of raktapitta⁵⁰ (bleeding disorder), chardi⁵¹ (vomiting). So, this Mṛt (soil) is act as Rakta Prasādaka and Rakta Stambhaka agents.

Lodhra (*Symplocos racemosa* Roxb.)

Lodhra is having Kaṣāya (astringent) Rasa (taste), Laghu (light), Rukṣa (dry) Guṇa, ſīta (cold) Vīrya (potency) and Rakta Stambhana (Haemostatic) properties⁵². Lodhra is used in raktapitta⁵³ (bleeding disorder), arśa⁵⁴ (piles), raktātīsār⁵⁵ (bleeding with diarrhea). It is also used in treatment of visarpa⁵⁶ (a type of skin disorder), vātaṣoṅita⁵⁷, viṣa⁵⁸ (poison), internally as well as externally. Lodhra powder given along with dried ginger powder and Śarkarā (sugar) significantly effective in the treatment of Asṛgdara (menorrhagia)⁵⁹. *Symplocos racemosa* Q (60 % v/v alcohol content), on regular administration at a dose level of 25 mg/100 gm body weight daily once a day regularly for 7 days by the oral route produced as significant fall i.e. p < 0.01 in whole blood coagulation time, prothrombin time and fibrinolytic activity as compared to normal control and vehicle fed control groups⁶⁰. Thus, it is used as Rakta Prasādaka and Rakta Stambhaka.

Gairika (Red Ochre)

Gairika is kaṣāya (Astringent) and Madhura (sweet) in rasa, Snigdha (Unctuous) in Guṇa (property), ſīta (Cold) in Vīrya (potency), Madhura (Sweet) in Vipāka and having Kapha-Pitta-pacifying property, Vṛaṇa-Ropaka (wound healing), Cakṣuṣya (beneficial for eyes) properties. It also prevents hemorrhage. Its topical application gives relief in burns, ulcers, boils, pustular eruption. Therapeutically used for Netraroga (diseases of eyes), Raktapitta (bleeding disorder), Viṣa-vikāra (disorders due to poison), Raktapradara (menorrhagia or Metrorrhagia or both), Kaṇḍū (itching), Dāha (burning sensation)⁶¹.

It is used in different skin diseases (Kuṣṭha, Kilāsa etc.) for external application (Pradeha)⁶². And also used for treatment of nasal bleeding⁶³, used as content of different type of Agad (antidote) in Viṣa (poison) treatment⁶⁴. Hence it is having Rakta Prasādaka and Rakta Stambhaka property.

Priyaṅgu (*Callicarpa macrophylla* Vahl.)

Priyaṅgu is having tikta (bitter) and kaṣāya (astringent) rasa (taste), Śīta (cold) Vīrya (potency) and pitta pacifying property⁶⁵. Also useful in Rakt atisār (Diarrhea with bleeding), Daurgandhya (bed smell), Sveda (sweating), Dāha (burning), Jwara (fever)⁶⁶. Priyaṅgu is used in skin diseases for external application⁶⁷. It is used for bleeding piles as ingredient of Picchā basti.⁶⁸ Oil prepared with Priyaṅgu and other drugs is used for fast healing of ulcers (Vraṇa ropana)⁶⁹. Total flavonoids from *Callicarpa macrophylla* displayed potent anti-inflammatory and Antinociceptive activity and significantly shortened the blood coagulation time in mice at the dose of 200 and 400 mg⁷⁰. Thus, it is having Rakta Prasādaka and Rakta Stambhaka property.

Śarkarā (Sugar)

Śarkarā is having Madhura (sweet) rasa (taste), Śīta (cold) Vīrya (cold) and Madhura (sweet) Vipāka and Pitta and Rakta pacifying property⁷¹. It is used as Anupāna or Sahapāna with different herbs

in different bleeding condition⁷² and bleeding piles⁷³. It is used as replenishment agent after blood loss so Śarkarā is having Rakta prasādana and Rakta Vardhana property.

Lajā (Puffed Rice)

Lajā is having Madhur (sweet) rasa (taste), Śīta (cold) Vīrya (potency) and pitta pacifying property⁷⁴. It is used in Raktapitta (bleeding disorder) and Pathya dravya for the patient of raktapitta⁷⁵. Peyā which is made from Lajā is indicated to the patients of bleeding piles⁷⁶ and thirst⁷⁷ (Trṣṇā). Thus, Laja is having rakta Prasādaka and Rakta vardhaka action.

DISCUSSION

In accordance with above facts, the term śoṇita-sthāpana clearly includes 'rakta-prasādana', 'Rakta-Stambhana' and 'Rakta-Vardhana' property. All drugs of śoṇita-sthāpana Mahākaṣāya are either having one, two or all three actions. (As shown in Table 1)

Table 1: Drugs of Śoṇita-Sthāpana Mahākaṣāya

Drugs	Properties
Madhu, Madhuka	Rakta-prasādana, Rakta-Stambhana and Rakta-varhdhana
Rudhira (Kumkum)	Rakta-prasādana and Rakta-varhdhana
Mocarasa	Raktastambhaka
Mṛtkapāla, Lodhra, Gairika, Priyaṅgu	Rakta-prasādana and Rakta-Stambhana
Śarkarā, Lajā	Rakta-Prasadaka and Rakta-varhdhana

Most of drugs of śoṇita-sthāpana Mahākaṣāya are having Madhura and Kaṣāya rasa. These two rasas are having pitta pacifying property. Maximum of drugs are having cold potency. So, the drugs of śoṇita-sthāpana Mahākaṣāya are having Pitta Shamaka property. Rakta is resides in pitta as āśraya-āśrayī. Derangements in blood and blood parameters are mainly due to vitiation of pitta doṣa. That's why drugs having pitta pacifying action are also act on rakta as Rakta Prasadaka (blood purifying) agent.

Drugs having kaṣāya rasa, act as vasoconstrictor on bleeding surface resulting obstruction of blood flow and coagulation of blood. So, these drugs act as coagulating agents (Rakta Stambhaka)

Drugs like Madhu, Madhuka, Lajā and Śarkarā, are having Madhura rasa and act as replenishing agent (Rakta vardhaka) after blood loss as they use with food after blood loss.

CONCLUSION

On the basis of the review of text it is clear that Śoṇita-sthāpana is a broad term which includes 'Rakta-prasādana', 'Rakta-Stambhana' and 'Rakta-varhdhana' property. Madhu, madhuka, Rudhira, Mṛtkapāla, Lodhra, Gairika, Priyaṅgu Śarkarā and Lajā are having Rakta Prasadaka property. Madhu, madhuka, Mocarasa, Mṛtkapāla, lodhra, Gairika and Priyaṅgu are having Rakta Stambhaka property. Madhu, Madhuka, Rudhira, Lajā and Śarkarā are having Rakta vardhana property.

For further evaluation of different extent of Śoṇita-sthāpana Mahākaṣāya, each drug of Mahākaṣāya should be evaluated for their particular action on blood components and coagulation profile. This will give the clear picture and extent of the term śoṇita-sthāpana.

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