

# Evaluation of Shothahara Mahakashaya of Charak Samhita: A Literary Review

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## Abstract

Shothahara mahakashaya denotes group of ten medicines, which act on Shotha roga. Shotha roga can be correlated with the term edema/Swelling of modern medicine. Shothahara Mahakashaya is the 38<sup>th</sup> gana of the 50 mahakashaya gana described in fourth chapter of Sutra sthan of Charak Samhita and includes patala, agnimantha, bilva, syonaka, kashmariya, kantakari, brihati, shalaparni, prishaniparni, goksura ten ingredients. These 10 plants are work together and give enhanced effect. They are also effective individually. These plants having Katu, Tikta, Kasaya Rasa, Ushna Virya, Katu Vipaka, Ruksha, Laghu Guna and Tridoshaghan (Mainly Vataaghana) properties.

**Keywords:** Shothahara mahakashaya; Swelling; Dashamula; Ayurveda; Anti-edematous; Diuretic

## Introduction

Shothahara mahakashaya, group of ten dravyas, which act on Shotha roga. Shotha roga can be correlated with the term Swelling/edema of modern medicine [1-3]. In Ayurveda, various varieties of Shothaare described. These include mainly three types as described by charakasamhita-Vataj shotha, Pittaj shotha, kaphaj shotha. Two types (Nija & Agantuja or Ekangaja, Sarvaja four Vattik, Pattik, Shlaismika & Agantuja, seven types Vattika, pattika, Shlaismika, Shanipataja, vata-pattika, vattashlaismika, pittashlaismika eight types Vattika, pattika, Shlaismika, Shanipataja, vatapattika, vattashlaismika, pittashlaismika, agantuja [4-6].

## Samprapati

*Bahya sira prapya yada kaphasrikapitani samdushayati.*

*Tairbadhamarga sa tada visharpatyutsedhalinga shawathum karoti.*

(Charaka Samhita chikshasthan) [7-9].

Mentioned causative factors of shotha roga, kapha, asrik (Blood) and pitta enter the external vessels (Bahya sira) and afflict vata dosha. As a result, the channel of circulation gets obstructed which spreads to the nearby areas, leading to shotha. Shotha is characterized by swelling (Tables 1-3).

## Sign and Symptoms of Shotha Rog

*Ushma tatha syadwathuh siranamayam ityev ca poorvrupm.*

*Sgoravam syadanavsthitatvam sotsedhamoosmaatha siratanutavam.*

*Slomaharshaangavivarnata ca samanyalingam swathoh pradistam.*

(Charaka Samhita chikshasthan 12/10-11)

Ushma-Increased temperature;

Davathu-Burning sensation;

Siranam Ayam-Dilation of the vessels of Locality;

Sa gauravam-Heaviness;

Anvasthitatvam-Instability;

Utseda-elevation;

Loma harsa-Horripilation;

Anga vivarnata-Discoloration of skin over the limbs [10-12].

S. No.	Name	Botanical Name	Family	English Name	Useful Part
1.	Patala	<i>Stereospermum suaveolens DC</i>	Bignoniaceae	Rose flower fragrant	Root bark, flower, seed, leaf, kshara
2	Agnimantha	<i>Clerodendrum phlomidis Linn.</i>	Verbenaceae	Glory Bower	Root bark, bark, panchang, leaves
3	Shyonaka	<i>Oroxylum indicum Vent.</i>	Bignoniaceae	Midnight horror, oxylum, Indian trumpet flower	Root bark
4	Bilva	<i>Aegle marmelos Corr.</i>	Rutaceae	Bael tree	Fruit, leaves, root
5	Gambhari	<i>Gmelina arborea Linn.</i>	Verbenaceae	Kumil, White teak, Gamar	Root, fruit, flower, leaves
6	Kantkari	<i>Solanum surattense Burm./S. xanthocarpum Schrad and Wendl</i>	Solanaceae	Yellow berried night shade	Whole plant, root,
7	Brihati	<i>Solanum indicum Linn.</i>	Solanaceae	Poison berry, Indian night shade,, African Eggplant, Bush Tomato	Root, fruit
8	Shalaparni	<i>Desmodium gangeticum DC</i>	Leguminosae	Sal leaved desmodium	Whole plant, root
9	Prisnaparni	<i>Uraria picta Desv.</i>	Leguminosae	Indian uraria	Root
10	Gokshura	<i>Tribulus terrestris Linn.</i>	Zygophylaceae	Land caltrops/ Puncture vine/cow hage	Root, fruit

Table 1: Shothahara Mahakashaya Dravyas [2-7].

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S. No.	Sanskrit Name	Guna	Rasa	Virya	Vipaka	Dosha Karma	Main karma
1	<i>Patla</i>	<i>Laghu, Rooksha</i>	<i>Tikta, kashaya</i>	<i>Ushna</i>	<i>Katu</i>	<i>Tridoshahara</i>	<i>Shothahara, mutral,</i>
2	<i>Agnimanth</i>	<i>Laghu, Rooksha</i>	<i>Tikta, Katu, Kashay, Madhur</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kaphavatahar</i>	<i>Shothahara, vednasthapak</i>
3	<i>Syonaka</i>	<i>Laghu, Rooksha</i>	<i>Madhur, tikta, kashaya</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kaphavatahar</i>	<i>Upashosan, mutral, shothahara</i>
4	<i>Bilv</i>	<i>Laghu,Rooksha</i>	<i>Kasaya,Tikta</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kaphavatahar</i>	<i>Shothahara, Dipan, pachan</i>
5	<i>Gambhari</i>	<i>Guru</i>	<i>Tikta, Kasaya, Madhur</i>	<i>Ushna</i>	<i>Katu</i>	<i>Tridoshahara</i>	<i>Shothahara, mutral</i>
6	<i>Kantkari</i>	<i>Laghu,Rooksha,Tikshna</i>	<i>Katu, Tikta</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kaphavatahar</i>	<i>Kashahar, mutral,</i>
7	<i>Brihati</i>	<i>Laghu,Rooksha,Tikshna</i>	<i>Katu,Tikta</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kaphavatahar</i>	<i>Kashahar, mutral, hridroghara</i>
8	<i>Shalaparni</i>	<i>guru, snigdha</i>	<i>madhur, Tikta</i>	<i>Ushna</i>	<i>madhur</i>	<i>Tridoshahara</i>	<i>Angamardprashaman, Shothahara, deepan</i>
9	<i>Prisnaparni</i>	<i>laghu, snigdha</i>	<i>madhur, Tikta</i>	<i>Ushna</i>	<i>madhur</i>	<i>Tridoshahara</i>	<i>Angamardprashaman,deepan</i>
10	<i>Gokshur</i>	<i>Guru, Snigdha</i>	<i>Madhur</i>	<i>Sheeta</i>		<i>Vatapittahara</i>	<i>Mutravirechaniya</i>

These 10 dravyas are considered as Dashamoola. *Shothahara mahakashaya* having *Katu, Tikta, Kasaya Rasa, Ushna Virya, Katu Vipaka, Ruksha, Laghu Guna and Tridoshaghan* (Mainly *Vataaghana*) properties and with *Ushna Virya* and *Katu Vipaka* change sentence

Table 2: Properties and action.

S. No.	Dravya Name	Chemical constitutes	Extract/Active chemicals	Mode of Action
1	<i>Patla</i>	Flavonoids, terpenoids, saponin, stereolensin, Iridoid glycoside, beta-sitosterol etc	Ethanol extract of bark	Its inhibition on histamine and 5-HT release at the site of inflammation or by blocking their action responsible for prostaglandin synthesis or by inhibiting prostaglandin synthesis through COX-2 inhibition mechanism
2	<i>Agnimanth</i>	Beta-sitosterol, luteolin, alphelandrine, premnne, betulin, ganarine etc.	Chlorofom extract of aerial part, aqueous extract of root bark	Inhibition of the synthesis of prostaglandins & other inflammatory mediators
3	<i>Syonaka</i>	Baicalin, tetulin, oroxindin, aloe-emodin, chrysanthemum, oroxylium A, p-coumaric acid, scutellarein-7-rutinosides, prunetin, beta-sitosterol etc.	Ethanol Extract of Stem Bark	Suppressed the activation of pro-inflammatory cytokines including NF- $\kappa$ B, TNF $\alpha$ , IL-1 $\beta$ , and IFN $\gamma$ and the activity of cyclooxygenase enzymes
4	<i>Bilv</i>	Root-Xanthotoxin, umbelliferone, marmesin, marmin, skimmianine, etc.	Root-three active compounds aegeline, skimmianine, and marmin	Potently inhibited the histamine release from rat mast cells
5	<i>Gambhari</i>	Beta-sitosterol, ceryl alcohol, gmelinol, butyric acid, tartaric acid, apigenin, arborone, ardorel, isoarborel, cutytyl ferulate, epieudesmin, gmelanore, etc.	Aqueous and Methanolic extract of bark	Inhibition of prostaglandin and other autocoids
6	<i>Kantkari</i>	Beta-carotene, diosgenin, carpesterol, solasodine, solamargine, beta-solamargine, solasonine, solasodino-L-rhamnosyl-B-D-glucoside, solanocarpine, tomatidienol etc.	Methanolic Extract of Leaf	Inhibitory effect on the release of active pain substance such as histamine, serotonin, polypeptides or prostaglandins
7	<i>Brihati</i>	Carotene, solasonine, carpesterol, solanocarpone, diosgenin, beta-sitosterol, lanosterol, solanine, solamargine, solasodine, vit-C etc.	Methanolic extract of fruit	Inhibition of pain substance like histamine, serotonin & inhibit the synthesis of prostaglandins, inhibit the cyclooxygenase pathway
8	<i>Shalaparni</i>	Flavonoids, N,N-dimethyltryptamine, hypaphorine, hordenine, caudicine, gangetin-3H, gangetinin, desmodin etc.	Ethanolic extract of leaves	Flavonoids-anti-inflammatory effects through its inhibition of the cyclooxygenase pathway
9	<i>Prisnaparni</i>	Flavonoids, steroids, triterpinoids, tannins, carbohydrate, Amino-acids,	Methanolic Extract of aerial part	Histamine, prostaglandins, kinin and pro-inflammatory cytokinins
10	<i>Gokshur</i>	Root-campesterol, beta sitosterol, stigmasterol, neotigogenin	Ethanolic extract of fruit	Inhibited the expression of cyclooxygenase-2 (COX-2), suppressed the expression of pro-inflammatory cytokines

Table 3: Shows chemical constitute pharmacological properties.

### Shothahara Mahakashaya Dravyas

Patlaagnimanthsyonakabilvakashmriyakantkarikabrihatishal-parniprishamanigokshuraiti dashemani swayathuharani bhawanti. (Charaka Samhita Sutrasthan 4)

### Discussion

Dashmool reduces vitiated Tridosha; when there is a high Vata & it can be used as a tonic to strengthen the system, exhibits antioxidant, anti-cancer activity, strengthens the body and enhances the production of tissue. Dashmoola is used in Ayurveda texts for the

following disorders- use ayurveda terms (Pyrexia (different types of fevers)), (acute and chronic asthma), (chronic cough), (hiccups), (cough), all types of vata disorders, pain disorders, epilepsy, heart diseases, renal disorders, all types of paralysis, ascites and all types of post-delivery complaints, tetanus aphrodisiac, infertility and in panchkarma treatments mainly Basti, ShiroDhara, Swedan Karma [13-19].

### Conclusion

All the drugs are and having Alkaloids, Lignan, Flavanoid etc which, Help the reduce the edema. All the 10 drugs are having the qual-

ity to treat the shotha roga. Shothahara mahakashya helps re-establish normal physiological function in the affected tissues and organs.

Dosha karma (Effect on humors) specifies mainly vata dosha, normalizes kapha dosha.

Dhatu (Tissue effect)-Rasa, Mamsa, Asthi.

Organs effect-Nerves, Muscles, Bones, Joints.

Main Indication-Vata disorders.

Physician can select the best drug among these with the help of Yukti Pramana.

Shothahara mahakashya every dravya though an ingredient of Dashmool, an anti-inflammatory formulation from Ayurveda, is not indicated in Ayurveda as a single drug formulation for internal use in treatment of inflammatory disorders.

#### References

1. Pandey K (2013) Shadavirechanshatakrityadhyam, quotation-38, Charak Samhita, part-1, Chaukhamba bharati academy, Varanasi.
2. <http://www.amazon.in/Dravyaguna-Vijnana-Dravya-Materia-Medica/dp/9381301328>
3. (2005) Dravyaguna Hastamalak by Vaidya Banvari Lal Mishra edition.
4. (1970) Aushadhi vigyan shastra by Acharya Vishwanath Devedi edition.
5. Kaushal K, Meena L (2015) Shvasahara mahakashaya and its pharmacology: a review study.
6. <http://www.onlinebooksstore.in/publication/chaukhamba-bharati-academy>
7. Sharma PV, Dravyaguna vijnana (2013) Chaukhamba bharati academy, Varanasi, Vol. II, Reprint Edition.
8. Kilimozhi D, Parthasarathy V, Jayant MN, Manavalan R (2009) Antinociceptive, antipyretic and anti-inflammatory effects of *Clerodendrum phlomidis* in mice and rats. IJBCS 3.
9. Lawania RD, Mishra A, Gupta R (2010) Oroxyllum indicum: A Review. PHCOG 2: 304-310.
10. Behera JP, Mohanty B, Ramani YR, Rath B, Pradhan S (2012) Effect of aqueous extract of *Aegle marmelos* unripe fruit on inflammatory bowel disease. Indian J Pharmacol 44: 614.
11. Kulkarni YA, Panjabi R, Patel V, Tawade A, Gokhale A (2013) Effect of *Gmelina arborea* Roxb in experimentally induced inflammation and nociception. Journal of Ayurveda and Integrative Medicine 4: 152.
12. Sagar MK, Upadhyay A, Kalpana, Upadhyaya K (2010) Evaluation of antinociceptive and anti-inflammatory properties of *Desmodium gangeticum* (L.) in experimental animals models. Arch Appl Sci Res 2: 33-43.
13. Balasubramanian T, Chatterjee TK, Sarkar M, Meena SL (2010) Anti-inflammatory effect of *Stereospermum suaveolens* ethanol extract in Rats. J Pharmaceut Biol 48: 318-323.
14. Parekar RR, Dash KK, Marathe PA, Apte AA, Regeet NN (2012) Evaluation of anti-inflammatory activity of root bark of *Clerodendrum phlomidis* in experimental models of inflammation. Int J Appl Bio Pharma Tech 3: 54-60.
15. Nugroho AE, Riyanto S, Sukari MA, Maeyama K (2008) The Effects of compounds isolated from *Aegle marmelos* Correa on the histamine release from mast cells. The 81<sup>st</sup> Annual Meeting of the Japanese Pharmacological Society, Yokohama, Japan.
16. Huque A, Biswas S, Bhuiyan JR, ur Rashid MH, Jahan A, et al. (2015) Analgesic, anti-inflammatory and anxiolytic activity evaluation of methanolic extract of *Solanum surattense* Leaf in swiss Albino mice model. IJPCR 7: 68-76.
17. Deb PK (2014) Phytochemical and pharmacological evaluation of fruits of *Solanum indicum* Linn. Int J Pharm Sci Rev Res 25: 28-32.
18. Hem K (2017) Anti-inflammatory and hepatoprotective activities of the roots of *Uraria picta*. Int J Green Pharm 11: S166.
19. Oh JS, Baik SH, Ahn EK, Jeong W, Hong SS (2012) Anti-inflammatory activity of *Tribulus terrestris* in RAW264.7 Cells J Immunol 88: 54-62.