

Conceptual study of *Vedanasthapan Gana* in pain management

Priyanka S. Kandikattiwar*¹, Mrityunjay Sharma², Archana S. Dachewar³

1. PG Scholar, Dept. of Kayachikitsa, Shree Ayurved Mahavidyalaya, Nagpur, India.
2. Associate Professor, Dept. of Kayachikitsa, Shree Ayurved Mahavidyalaya, Nagpur, India.
3. H.O.D. and Professor, Dept. of Kayachikitsa, Shree Ayurved Mahavidyalaya, Nagpur, India.

*Corresponding Author – Email id – kandikattiwarp@gmail.com

ABSTRACT:

The international association for the study of pains defines pain as an unpleasant sensory and emotional experience association. Classical texts of *Ayurveda* like *Charak Samhita* explains pain as a separate entity termed as *Vedana*. There are 50 formulations mentioned in *Charak Samhita*; each of them having ten different ingredients, one of them is *Vedanasthapan Gana*. Drugs mentioned in *Ayurveda* are having firm scientific background but the drugs need revalidation in today's era. Many drugs in *Vedana Sthapana Gana* has significant action on *Vedana* but are not very effective in RA, Osteoarthritis or abdominal pain etc. Most of the doctors think that *Vedana Sthapana* drug means analgesic but it does not seem true. In this regard, attempt has been made to critical review the *Vedana* and *Vedanasthapan Gana* drug mentioned in *Ayurvedic* classical texts which may abet our understanding of prevention and management of pain in various conditions like *Rakta* and *Shwetpradara*, *Atyaartava*, *Karna Roga*, Post operative

pain and *Raktadushtijanya Vikara*, *Dysmenorrhea* etc.

KEYWORD: *Vedana*, *Vedana Sthapana Gana*, Drug review

INTRODUCTION:

Pain is distressing feeling often caused by intense or damaging stimuli. Even through the experience of pain varies from one person to next; it is possible to categorize the different type of pain like chronic, nerving, psychogenic, musculoskeletal, abdominal, joint, etc. Pain management in *Ayurveda* has a holistic view which incorporates several therapeutic procedures and behavioural modifications under the light of basic principles narrated in *Ayurved*. *Ayurveda* suggests a different approach to pain relief. Classical text of *Ayurveda* like *Charak Samhita* explain *Mahakashaya* like *Vedanasthapan* (for haemorrhagic pain), *Shoolprashaman*(for colic), *Angamardprashaman*(for body ache) with its varied clinical application considering the important for the same. It is hence mandatory to explore the concept of pain and its practical utility requiring establishment in pain care reconnoitred in *Ayurved*. Critical review

of the previous available classical references and fact about the pain with chief therapeutic medication such as *Vedanastapan Gana* utilized in *Ayurveda* with a modern lookout could find a way to address this grief.

AIMS/OBJECTIVES:

- To discuss, elaborate, evaluate *Vedana* and *Vedanasthana Gana*.
- To evaluate *Rasa*, *Virya*, *Vipak*, *Guna*, *Prabhav*, *Doshaghanta* of *Vedanasthapan Gana* drug according to different *Acharya*.

MATERIALS & METHODS:

This conceptual study is based on literary review collected, compilation and tabulation of *Vedanasthapan Gana* herb from classical *Ayurveda* texts book, modern literature and journals, articles.

The meaning of word *Vedana* in various books is as follows.

- दुःख या कष्ट आदि का होने वाला अनुभव । पीडा । व्यथा । तकलीफ ।¹
हिन्दी शब्द

सागर

- वेदना-स्त्री.(स.वेदन+टाप)

१. बहुत तीव्र मानसिक या शारीरिक कष्ट विशेषतः

प्रसव के समय स्त्रियों को होने वाला कष्ट ।

२. तीव्रमानसिक दुःख । व्यथा।

मानव हिन्दी

कोश

- वेदना । स्त्री। चिकित्सायाम। रा.नि.व.२०। व्ययायाम।

वैद्यकः शब्दः

सिन्धुः²

- वेदना (सं स्त्री) कळ, यातना, दुःख.

मराठी शब्दरत्नाकर³

The *Vedana Sthapana Gana* is as follows:

शालकट्फलकदम्बपट्टकतुम्बमोचरसशिरीषवज्जु
लैलवालुकाशोका इति दशेमानि
वेदनास्थापनानि भवन्ति ॥⁴ च.सु.४/४७1

DRUG REVIEW^{5, 6}

Sr. no.	द्रव्य	Latin name	रस	विपाक	वीर्य	गुण	प्रभाव	दोषघ्नता
1	शाल ⁷	Shoerea robusta	कषाय	कटु	शीत	रुक्ष	वेदनास्थापन	रक्तकफहर
2	कट्फल ⁸	Myrica esculanta	कषाय तिक्त कटु	कटु	उष्ण	लघु तीक्ष्ण		कफवातहर
3	कदम्ब ⁹	Anthocephalus cadamba	तिक्त कषाय	कटु	शीत	रुक्ष	वेदनास्थापन	त्रिदोष शामक
4	पट्टक ¹⁰	Runus cerasoides	तिक्त कषाय	कटु	शीत	लघु स्निग्ध	वेदनास्थापन	कफ पित्त शामक
5	मोचरस ¹¹	Salmalia malbarica	कषाय	मधुर	शीत	लघु स्निग्ध पिच्छिल	कफपित्त शामक	व्रणशोथहर
6	शिरीष ¹²	Albizia Lebbeck	कषाय तिक्त	कटु	अल्प उष्ण	लघु रुक्ष तिक्ष्ण	विषघ्न	त्रिदोषशामक

			मधुर					
7	अशोक ¹³	Saraca asoca	कषाय तिक्त	कटु	शीत	लघु रुक्ष	वेदनास्थापन	विषघ्न , कफपित शामक
8	जलवेत स ¹⁴	Salix tetrasperma	कषाय तिक्त	कटु	शीत	लघु	वेदनास्थापन	कफपित शामक
9	ऐलवालुक ¹⁵	Prunus cerasus	कषाय	कटु	शीत	लघु		अरुचि, कफ, विष, रक्त, पित्त, शामक
10	तुम्ब्री ¹⁶	Lagerflora siceraria	तिक्त	कटु	शीत	लघु		वात पित्त नाशक, अरुचिकर, कास श्वास ज्वर विष नाशक

Chemical constitutions and Pharmacological activity *Vedanasthapan Gana according to modern*

SHOREA ROBUSTA¹⁷

Chemical constituent

S. robusta contain ursolic acid and α -amyrenone; α & β -amyrin, bark contain ursolic acid and oleanane, Shoreaphenol, seed contains hopeaphenol, leucoanthocyanidin, and 3,7-dihydroxy-8-methoxyflavone 7-O- α -l-rhamnopyranosyl-(1 \rightarrow 4)- α -l-rhamnonopyranosyl-(1 \rightarrow 6)- β -d-glucopyranoside³¹; while heartwood contains germacrene-D. The isolation of β -amyrin, friedelin, β -sitosterol, pheophytin- α , and dihydroxyisoflavone from mature leaves were also reported.

Pharmacological properties

Crude extracts and isolated compounds from Shorea robusta show a wide spectrum of pharmacological activities, such as anti-inflammatory, anti-obesity, antibacterial, wound healing, anti-pyretic & analgesic activities.

Analgesic activity:-The methanolic and aqueous leaf extract of S. robusta shows

significant central and peripheral analgesic effect.

Antipyretic activity:-The ethanolic extract (70%) of S. robusta resin (SRE) was investigated for its antipyretic activities

Anti-inflammatory activity:-The methanolic and aqueous leaf extract of S. robusta shows anti-inflammatory activity.

Wound healing activity:-The ethanolic extract of S. robusta applied locally in excised and incised wounds produced a dose-dependent acceleration in wound contraction and increased hydroxyproline content and tensile strength of wound. The result demonstrates wound healing activity.

MYRICA ESCULANTA¹⁸

Chemical constituent

This plant is found to be a rich source of phenolic compounds, flavonoids and flavonols. Other bioactive compounds reported in the plant belong to the class of alkaloids, glycosides, diarylheptanoids, ionones, steroids, saponins, triterpenoids, and volatile compounds. The structure of some

important bioactive phyto-constituents reported in *M. esculenta* plant.

Pharmacology properties

Several crude extracts from various parts of the plant and isolated bioactive compounds have shows different biological activities such as analgesic, antiasthmatic, anticancer, antioxidant, antiinflammatory, antidiabetic, antiulcer, anxiolytic, hepatoprotective, chemopreventive, hypotensive and wound healing activity.

Analgesic activity and Antipyretic effect:-

Oral administration of methanol extract of the fruits of *M. esculenta* manifested a significant analgesic activity.

Anti-inflammatory activity: - The methanol extract of *M. esculenta* leaves shows anti inflammatory activity.

Wound healing activity:- Application of ointment prepared from the aqueous extract of bark facilitated wound healing process as evident by significant increase in the tensile strength, hydroxyproline content, faster wound contraction and decrease in the epithelization period found.

ANTHOCEPHALUS CADAMBA¹⁹

Chemical composition

The preliminary phyto chemical screening of *Anthocephalus cadamba* whole plant showed the presence of saponins, terpenes, sesquiterpenes glycosides, alkaloids and absence of anthraquinones and flavonoids. cadambine, cadamine, β -sitosterol, quinovic acid, chlorogenic acid.

Pharmacological

From literature survey it was found that the almost all parts of the plant *Anthocephalus cadamba* are used in the treatment of various diseases such as ulcers, wounds, and metorrhea. Bark of the plant is used in fever, inflammation, cough, vomiting, diarrhoea, diabetes, burning sensation, diuresis, wounds, and in treatment of snake-bite.

Analgesic, Antipyretic and Anti-inflammatory activities:-The methanolic extract of the bark of *Anthocephalus cadamba* was successfully evaluated for analgesic, antipyretic and anti-inflammatory activities.

RUNUS CERASOIDES²⁰

Chemical constituents: Stem: Narigenin, apigenin, β -sitosterol, sakuranetin, prunetin, genkwanin, Stem bark: Padmakastein and its derivatives, β -sitosterol behenate, tectochrysin, genistein, and its 5-glucoside, neosakuranin (2, 4'-dihydroxy-4-methoxy-6-glucosidoxy chalcone), leucocyanidin puddumin B (naringenin-4'-methyl ether-7-O- β -D-galactoside), Taxifolin, Root bark: Ursolic acid, stigmasterol, prunetinoside, glucogenkwanin, Seed: Naringenin-5-O- α -L-rhamnopyranoside, 4'-O-methyl-liquiritigenin-7-O- α -L-rhamnopyranoside, naringenin 4'-methylether 7-xyloside, β -sitosterol-3-O-D-galactopyranoside, Leaves: Quercetin-3-rhamnoglucoside, kaempferol.

Pharmacology activity

R. cerasoides is traditionally acclaimed for its high therapeutic value. It is considered as anti-abortion, analgesic, carminative, conceptive, expectorant, antispasmodic, febrifuge, antioxidant and tonic

SALMALIA MALABARICA²¹

Chemical Constituents

All parts of *Salmali Malabarica* have active constituents like Betasitosterol and its Glucosides.

Flowers- hentriacontane, hentriacontanol, Seeds bark and root bark-lupeol, Root bark in addition gave 7-hydroxycadalene. Younger root contain more sugars and peptic substances. They contain mucilage,

starch, mineral matter tannins and non tannin

Pharmacology

Salmali malabarica shows Antioxidant activity, Analgesic activity, Antimicrobial and antibacterial activity, Antipyretic and Aphrodisiac activity Anti-inflammatory agent in Muscular Injury:- barks and roots were used to treat muscular injury Wound healer

ALBIZIALEBBECK²²

Chemical constituent:

Major phyto-chemicals reported in Sirish are Stem bark- D-catechin, betulinic acid, lebbekanin A-C, leucocyanidin, melacacinidin, leucoanthocyanidin, lebbecacidin, friedelin, β -sitosterol. Leaves- echinocystic acid, flavonovicenin-2 and β -sitosterol, myricitin, quercetin, albigenic, albigenin, kaempferol, albizziahexoside. Flowers- Lupeol, amyirin, benzyl acetate, benzyl benzoate, crocetin, different sterols- taxerol, cycloartemol, lupeol, campesterol and lebbeckannin-D,F,G and H. Pod and Seed- albigenin, albigenic acid, echinocystic acid and sitosterol in pods, seeds are rich in amino acids and fatty acids.

Pharmacology activity

Albizia shows Anti-asthmatic activity, Anti-allergic activity, Immunomodulatory activity, Anti-fungal activity, and Antimicrobial activity, Effect on anaphylactic shock, Anti-fertility activity, Anti-diarrheal activity, Anti-inflammatory activity and analgesic effect.

Anti-inflammatory activity and Analgesic activity:- the methanol extract of Albizia bark shows anti inflammatory effect.

SARACA ASOCA²³

Chemical constituent

Flower :- Oleic, linoleic, palmitic and stearic acidssitosterol,quercetin, kaempferol, quercetin, apigenin- 7-0-p-

D-glucoside, Pelargonidin- 3, 5- diglucoside, cyanidin-3, 5- diglucoside, palmitic, stearic, linolenic, leucocyanidin and gallic acid, Bark: - Procyanidin, epicatechin, 11'- deoxyprocyanidin B, catechin, leucopelargonidin and leucocyanidin, Seed and Pod: - Oleic, linoleic, pal mitic and stearic acids, catechol, epicatechol and leucocyanidin.

Pharmacological Activity

Asoca shows Antimicrobial activity, uterine tonic activity, Anti menorrhagic activity, CNS depressant activity, Analgesic activity, Anti-inflammatory activity and Larvicidal activity.

Anti-inflammatory activity: The ethanolic extract of Saraca asoca leaves find out the anti-inflammatory activity.

Antimenorrhagic activity: - Ashoka dried bark has been used for menorrhagia. Saraca asoca dried bark as well as flower is given as a tonic to ladies in case of uterine disorders. Saraca asoca stem

Bark also used to treat all disorder associated with the menstrual cycle.

CNS depressant activity: The leaves of Saraca asoca shows CNS depressant activity in various solvent such as petroleum ether, chloroform, methanol and water respectively depending upon their polarity.

Analgesic activity: - Saraca asoca leaves extracts are accountable for analgesic activity. The leaf extracts like petroleum ether, chloroform, methanol and water were investigated for Phytoconstituents like sterols, glycosides, saponins, carbohydrates alkaloids, flavonoids, tannins, protein etc

SALIXTETRAPERMA²⁴

Chemical Constituent

The bark extract was shown to contain flavonoids, tannins and saponins. Salicin and its derivatives tremuloidin and 2'-O-p-(E)-coumaroyl salicin were isolated from the ethyl acetate fraction of the methanolic extract of leaves. flavonoids, tannins, triterpenes, phenolic

compounds, saponins, steroids and sterols in the leaves.

Pharmacological activity

Laxative activity, Antioxidant activity, Central nervous system activity, Cytotoxic activity, Insecticidal activity, Anti-inflammatory activity, Analgesic activity, Antipyretic activity, Hypoglycemic activity, Antibacterial activity and Antischistosomal activity

P. CERASUS²⁵

Chemical constituent

Stems, leaves, and pomace of the sour cherry (*P. cerasus* L.) are the rich sources of bioactive compounds. Eight phenolic acids were estimated in methanol extracts: Gallic, chlorogenic, tannic, caffeic, salicylic, ferulic, p coumaric and trans cinnamic. Leaves of sour cherry contained 30.702 mg of phenolic acids. It was also found that salicylic acid was a dominant compound in leaves of sour cherry.

Pharmacological activity

P. cerasus shows Immunomodulatory activities, Antioxidant activities, Skin care and promoting health, Antioxidant and anti-inflammatory activities, Melatonin levels and enhanced sleep quality, Anti diabetic activities and Antimicrobial activities.

LAGENARIA SICERARIA²⁶

Chemical constituent

The phytochemical analysis of edible portion of the fruit it is shown that it is a good source Glucose and fructose.

Fruit- The fruit is a good source of vitamins B and a fair source of ascorbic acid. Bitter fruits yield 0.013% of solid foam containing cucurbitacins B, D, G and H, mainly cucurbitacin B. These bitter principles are present in the fruit as aglycones, Leaves- contain cucurbitacin B and roots, cucurbitacins B, D and E. *Lagenaria siceraria* shows presence of flavone-C glycoside. A water soluble

polysaccharide, isolated from fruiting bodies of *Lagenaria siceraria*, is composed of methyl- α -D-galacturonate, 3-O-acetyl methyl- α -D-galacturonate, and β -D-galactose

Pharmacology activity

Central nervous system activity, Ant hyperglycemic activity, Cardio protective activity, Antioxidant activity, Cytotoxic activity and Anticancer activity.

RESULT AND DISCUSSION:

All drugs are *Kashaya Rasatamaka* and *Sheet Veerya*. Though *Kashaya Rasa* drugs are supposed to have properties like *Grahee*, *Sandhankara*, *Pidan*, *Ropana*, *Shodhana*, *Kaphapittaghna*, *Garbhashthairyakara* and *Kledaghna*. Due to these properties these drugs are mostly helpful in *Rakta* and *Shwetpradara*, *Atyaartava*, *Karna Roga*, Post operative pain and *Raktadushtijanya Vikara*, that's why we conclude that these drug are mostly effective in gynecological and obstructive symptoms. Various preliminary phyto-chemical studies carried out on the fruits, leaves and bark of *Vedanasthapan Gana* showed the presence of various active phyto-constituents that exhibit a variety of biological effects, such as anti-inflammatory, wound healing, anti-pyretic & analgesic activities.

CONCLUSION: Hence this present review on the *Vedanasthapan Gana* and its potential uses in Pain Management provide information that all of these *Dravyas* having capability to stabilize the process of Pain and protect body. In Ayurveda these drugs are grouped as *Vedanasthapan gana* drugs. Since the ingredients used are of natural origin, Ayurvedic pain treatment is not associated with any serious side effect.

REFERENCE:

1. Hindi Shabdha Sagar edited by Balakrushna Bhatta et al,

- Published by Shambhunath Vajpeyi Nagari Mudran Varanasi
2. Vaidyak shabdha sindhu edited by kaviraj Umesh Gupta, Published by chokhamba Orientaliya varansi
 3. Marathi shabdharatnakar edited by Ke. V.G.Apate, Published by Shri Samarth Sadan Girgao Mumbai.
 4. Charak Samhita part 1 edited by, vidhyadhar shukla, published by Chokhamba Sanskrit Pratishthan Delhi.
 5. Dravyagun vigyan part 2 edited by Acharya Priyavat Sharma, Published by chokhamba bharati akadami Varanasi.
 6. Dravyagun vigyan part 2 edited by prof.Dr.A.P.Deshpande Published by Proficient, Publishing House Pune.
 7. सर्जकोऽन्योऽजकर्णः स्याच्छालो मरिचपत्रकः | कफपाण्डुश्रुतिगदान् मेहकुष्ठविषव्रणान् ||१८|| भा.प्र.-पूर्व.-मिश्र.- वटादिवर्ग शालभेद (सर्जक)
 8. कटफलः सोमवल्कश्च श्रीपर्णी कुमुदा तथा |कासश्वास ज्वरापहम् ||८४|| ध. नि. कटफल
 9. कदम्बो वृत्तपुष्पश्च नीपस्तु ललनाप्रियः |व्रणसंरोहणश्चापि कासदाहविषापहः ||१०७|| ध. नि. आम्रवर्ग कदम्ब
 10. पद्मकाष्ठं पद्मवर्णं पद्मकं हेमवर्णकम् ||१४००||विस्फोटव्रण वीसर्पवमिकुष्ठतृषापहम् |१४०३ कै.नि. ओषधिवर्ग पद्मक
 11. निर्यासः शाल्मलेः पिच्छा शाल्मलीवेष्टकोऽपि च |प्रवाहिका ऽतिसारामकफपित्तास्रदाहनुत्
 - ||४८|| भा.प्र.-पू.-मिश्र.वटादिवर्ग मोचरस
 12. शिरीषः कलिमो विप्रो मृदुपुष्पः कपीतनः ||९७३||निहन्ति दोषवीसर्पशोफकासविषव्रणान् ||९७५|| भा.प्र शिरीष
 13. अशोकः शोकनाशश्च विचित्रः कर्णपूरकः |अशोको मधुरो हृद्यः सन्धानीयः सुगन्धिकः |१६४| ध. नि. आम्रवर्ग अशोक
 14. नदीकूलप्रियोऽन्यः स्यान्निचुलो जलवेतसः |कषायः शीतलो रूक्षः सङ्ग्राही जलवेतसः ||७६३| कै.नि. - ओषधिवर्ग जलवेतस
 15. एलवालुकमैलेयं सुगन्धि हरिवालुकम् |बलासविषपित्तास्रकुष्ठमूत्रगदक्रिमीन् ||१००|| भा.प्र .नि. एलवालुक
 16. तुम्बी लम्बा पिण्डफला राजन्या प्रवरापरा |अलाबुपत्रं मधुरं पित्तघ्नं मूत्रशोधनम् ||५४३|| कै.नि. - ओषधिवर्ग कटुतुम्बी
 17. Soni et al. A review update on shorea robusta gaertn f. (sal), journal of drug delivery & therapeutics; 2013, 3(6), 127-132
 18. P. Sood and r. Shri, A Review on Ethnomedicinal, Phytochemical and Pharmacological Aspects of Myrica esculenta, Indian J Pharm Sci 2018;80(1):02-13
 19. Atul Dubey, et al.: Anthocephalus Cadamba: A Review, Pharmacognosy Journal | January 2011 | Vol 2 | Issue 18.
 20. Chityanand Tiwari et al. A Review on Padmaka (Prunus Cerasoides D. Don): Different Species and Their Medicinal Uses AYUSHDHARA, 2017;4(1):1051-1055
 21. Sarita Verma et al. Case Report on Mocharasa (Haemostyptic Drug) - Action And Uses, Int. J.

- | | |
|--|--|
| <p>Ayur. Pharma
Research, 2017; 5(7): 48-57</p> <p>22. Vinita et al: Sirish (Albizia Lebbeck Benth.): A Natural Anti-Allergic Drug, IAMJ: Volume 6, Issue 7, July – 2018</p> <p>23. Satish A Bhalerao et al., Saraca asoca (Roxb.), De. Wild: An overview, Annals of Plant Sciences, 2014, 3 (07), 770-775</p> <p>24. Prashith Kekuda TR, Vinayak and Raghavendra HL, Ethnobotanical uses, phytochemistry and biological activities of Salix</p> | <p>tetraspermaroxb. (Salicaceae) – A review, Journal of Medicinal Plants Studies 2017; 5(5): 203-208</p> <p>25. Ahmad, et al.: Sour Cherry: A high value Unani medicinal fruit, International Journal of Green Pharmacy Jan-Mar 2017 • 11 (1) 4</p> <p>26. Sakshi Minocha, AN OVERVIEW ON LAGENARIA SICCERARIA (BOTTLE GOURD) et al. Journal of Biomedical and Pharmaceutical Research 4 (3) 2015, 04-10</p> |
|--|--|

Cite this article:

Conceptual study of Vedanasthapan Gana in pain management

Priyanka S. Kandikattiwar, Mrityunjay Sharma, Archana S. Dachewar

Ayurline: International Journal of Research In Indian Medicine 2019; 3(4) : 1 - 8