

[https://doi.org/10.46344/JBINO.2022.v11i05\(b\).13](https://doi.org/10.46344/JBINO.2022.v11i05(b).13)

## A CLINICAL EVALUATION OF AGNIMANTHA IN THE MANAGEMENT OF SANDHIGATVATA - A REVIEW

Dr.Anupama Shimpi & Dr.S.V. Deshpande

Associate Professor., Department of Kayachikitsa, Tilak Ayurved Mahavidyalaya,Pune

Professor, Department of Kayachikitsa , Tilak Ayurved Mahavidyalaya.Pune.

Email id: [dranupamaj.shimpi@gmail.com](mailto:dranupamaj.shimpi@gmail.com)

### ABSTRACT

There is high prevalence of osteoarthritis worldwide and the incidence is high above the age group of 40 years. The symptoms of osteoarthritis are joint pain, stiffness, swelling, tenderness and restricted movements . Literature explains duo treatment modalities i.e the alleviating therapy and elimination therapies.In the present article we are discussing regarding the role of Agnimantha in the management of Sandhigatavata.

**Keywords:** Agnimantha , Agnimantha , Clinical evaluation



## INTRODUCTION

Sandhigata Vata is one of the most common Vatika disorder found in elderly age groups. In

Ayurveda, its manifestation has clearly defined and understood that the vitiated Vata

dosha produces Shula (pain), Sopha (swelling) and Hantisanshin (diminution of functions). Acharya Vagbhata has very rightly defined the Hantisanshin i.e. Akunchana Prasaranjanya Vedanan (pain during joint movements Various aetiological factors eg. Abhighata (trauma), Dhatukshaya (degeneration), Dukhashayya (faulty posture), old age etc. are documented in Ayurvedic text Similar causative factors are enumerated in modern medicine also. In Samprapti, vitiated Vata Doṣa (especially Vyana Vayu which is responsible for all types of body movements) is localized at Kati Pradesa (lumbar region) and reduces the movement (Karma Hani) of the Kati Sandhi. Simultaneously Kaphavrita Vyana Vayu is restricted the Rasa Rakta Sambahana (Blood circulation Sandhi does not get nutrition from Purva Dhatu and gradually initiates the Dhatu Kshaya (degenerative changes) and diminishes the Sleṣmaka Kapha which facilitates the joint movements. If it is not controlled in this phase, Sandhi loses its normal structure and develops Hantisanshin (anatomical deformity), Sandhi Shula (pain), Sandhi Sopha (disc herniation), Karmahani (restriction of movement), Sunyata (numbness) etc.

Lumbar spondylosis is a degenerative condition of the lumbar vertebrae / spine. It affects to vertebral bodies as well as intervertebral disc. Initially low back pain is a common subjective complaint which further leads to worst pain during activity. The symptoms of radiculopathy may develop in latter stage of the disease. Various treatment options like NSAID (Non-steroid anti-inflammatory Drugs), epidural steroid injection, periradicular infiltration, surgical interventions, physiotherapy etc are the options for its But all these treatment have their own limitations and complications. In Ayurveda several methods of treatment options like Snehana, Upanaha, Agnikarma, Raktamokṣana, Pancakarma, Bhesaja cikitsa etc. are available. All these methods have been recommended for management of Vatik disorders. Among these methods Snehana is a first & foremost Upakarama has been described by Sushruta to pacify the vitiated Vata Dosa Under the context of Vatavyadhi, Narayana Taila has mentioned as a most efficacious for all age group of patients because of its Vata Kapha Samaka and Rasayana property Kativasti is one type of Bahya Snehana in which warm medicated oil is kept for specific time at the Kati Pradeshalt is a very simple and cost effective treatment modality. Routinely, it is in practice for the management of musculoskeletal pain without need of sophisticated instruments.

Disease is formed due to the vitiation of the dosha, and to be free from diseases the

dosha has to be in its normal form. When there is a fluctuation in the normalcy of dosha, may it be any of the three dosha, it causes wide spread fluctuations in the body as the ripples across a waterbody created by an untoward anomaly. Similarly when the vata becomes morbid it leads to the formation of vatavyadhi. Sandhigatavata is described under the chapter of vatavyadhi where vata is following the principle of gatavata<sup>2</sup>. The affliction of joints by morbid vata is mentioned in the pathogenesis expressing the specific symptoms related to it<sup>3</sup>. It is a disease that is difficult to cure and mainly occurs due to the etiological factors which are classified as dhatukshayajanya and margavarajanajanya. The symptomatology includes pain, stiffness, swelling, crepitus, and restricted movement of the joints. The modalities of treatment mentioned in the contemporary science include non-pharmacological and pharmacological measures. Exercises, lifestyle changes and proper medication such as analgesics play an important role in reducing the symptoms. In circumstances where the conservative management is not able to tackle the situation at hand, surgery is an option. If not treated properly it will lead to further complications which may even make the patient restricted to bed<sup>4</sup>. In Ayurveda point of view, vatavyadhi is best treated by principles of treatment that includes alleviating and eliminative therapies<sup>5</sup>. And further, alleviating therapies can be classified as internal and external methods of treatments. There are many alleviating therapies mentioned that are useful in the conditions like osteoarthritis. It includes decoctions,

tablets, linctus, ghee preparations, bandaging, oil application et al. So to analyse the therapeutic effect of the alleviating therapy like the oral medication in the morbid condition of vatavyadhi, the present work was done.

### Aginmantha

Agnimantha (*P. integrifolia*) is a scandent, erect shrub or small tree, more or less thorny on the trunk and large branches. It is large shrub or small tree up to 10 m tall, bole up to 30 cm in diameter, much-branched and sometimes spiny, bark fissured-flaky, brownish-grey and branches are spinous usually. Fruits are drupe, black coloured, obovoid– globose, 3-6 mm long, green turning black, pear shaped, its endocarp being ridged, bony, and 4-celled. Fruits appearing in Aug.–Sept. Flowers having pedicel 0–0.5 mm long, dense corymbs, corolla greenish white with unpleasant smell or disagreeable odour, in terminal pubescent paniculate corymbose cymes, bracts minutes, lanceolate. Calyx 2.5 mm long, thick, glabrous, 2-lipped, one lip 2-toothed, and the other sub entire. Corolla is glabrous outside, tube 3 by 2 mm, cylindrical, hairy inside of the throat, lobes are four in number, oblong, rounded, 1.2 mm long. Stamens slightly exerted filaments hairy at the base. Ovary and style is glabrous, stigma of 2 equal divaricate lobes. Flowering occurs in April–June. Leaves are 5–9 by 3.2–6.3 cm, broadly elliptic, oblong or ovate, obovate to sub-orbicular, obtuse, very shortly acuminate, glabrous, and entire or the upper part dentate, base rounded or sub-acute, main nerves 4–5 pairs, petioles 1–1.6 cm long. Seeds are pear-shaped and oblong. Roots

are yellowish brown in colour, woody, branched and somewhat tortuous to cylindrical in shape. Surface gets exfoliated easily and shows prominent longitudinal striations and wrinkles. Roots possess bland taste and slightly aromatic odour. The transverse section of *P. integrifolia* root shows rhytidoma made up of 15–20 layers of interrupted cork and 2–3 layers of cortex containing small stone cells packed with calcium oxalate prisms. Stone cells are pitted and show thickening on three sides. Inner cork is made up of about 8–10 layers of thin walled tangentially elongated suberised cells. The cortex is made up of collenchymatous parenchyma and shows a single discontinuous layer of elongated lignified, thick walled stone cells (80–125  $\mu$ ) lodged with 3–5 prisms of calcium oxalate (16–30  $\mu$ ). Phloem is comparatively wide and parenchymatous. The elements of wood occur in thin radial wedges. Xylem vessels are small (50– 138.1  $\mu$ ) and numerous. Medullary rays are 1–4 seriate, lignified and pitted. Starch (8–30  $\mu$ ) is found in cortex, phloem and xylem. Powder of root of *P. integrifolia* is brown in colour having slight aromatic odour and bland taste. Starch is simple, spherical and cup shaped with distinct hilum. Stone cells are small, rectangular to oblong in shape and lodged with prisms, which are found scattered also.

### Importance of Agnimantha

Agnimantha is useful in neurological diseases, musculoskeletal disorders and disease related to the lungs, heart, blood, skin and kidneys. It acts as a protective agent for blood vessels, heart, liver, skin,

muscles, joints and other connective tissues. Agnimanth roots act as appetizer and digestive. It improves appetite and aids in proper digestion. It is the best natural ayurvedic herb for people feeling the inability to digest foods, heaviness in the abdomen, drowsy or tiredness after having a meal. It reduces all these symptoms and improves digestion and promotes proper assimilation of the food. Agnimantha is also very effective for alleviating the pain, inflammation and swelling of the lymph nodes occurring in lymphadenitis. It has anti-inflammatory, antibacterial and antiviral actions that help to inhibit the growth of microbes, fights against infections and reduce inflammation. However, if tuberculosis is the underlying cause of lymphadenitis, then Agnimantha may not alone help.

Overall effect of improvement of symptoms Considering the overall effect in this treatment, percentage of improvement of the patients with respect to their symptoms showed that 46.66% each of the patients fell into mild and moderate improvement category respectively. Visha showed its effect on chronic rheumatism. Hareetaki also has a rejuvenative action which acts on vatavyadhi caused due to depletion of dhatu. Pippali, maricha, agnimantha, and nirgundi have vatahara and kaphahara properties<sup>9, 10, 11, 12</sup>. Maricha has action of enhancing the digestive fire which aids in pathology related to margavarana. Agnimantha has anti-arthritic properties which also have helped in reducing the symptoms of osteoarthritis. The aqueous extract of agnimantha was found to be

effective in reducing the edema of formalin induced arthritis. was also found to be effective in reducing the edema. Rasoushadhi like parada, lohabhasma, and tapya present in the formulation: swacchandabhairava rasa acts as tridosahara<sup>13, 14</sup>. They are having rejuvenating power i.e. which helps in dhatukshayaja vatavyadhi. It also has action against oedema. Gandhaka, haratala and tankana are the trio that helps to reduce vata and kapha and help to enhance the agni. Lohabhasma has its action on oedematous condition. In Svacchandabhairava rasa most of the drugs are vata kaphahara, so that it helps in alleviating the morbid vata as well as kapha dosha. The majority of the drugs in the formulation have hot potency so that the stiffness of joints occurring due to cold potency of vata gets neutralized. The anti-arthritis and anti-inflammatory effect of the drugs helps to pacify the symptoms of osteoarthritis. The presence of rasaoushadhi and also anupana kwatha aids in relieving the symptoms. The anupana kwatha contains the drugs like rasna, eranda and devadaru which have the property to relieve pain and swelling. The aqueous extract of rasna was found to be effective in reducing the edema of formalin induced arthritis. External application of alcoholic extract of eranda was also found to be effective in reducing the edema<sup>15, 16</sup>. The guggulu<sup>17</sup> is having the anti-inflammatory action and vatahara and kaphahara property. This also helps for the remission of inflammation. In short swacchandabhairava rasa is a combination which acts on the pathology of vatavyadhi. Whether it be

margavaranajanya or dhatukshayajanya vatavyadhi, swacchandabhairava rasa is a combination which gives promising results in reducing the symptoms.

Osteoporosis is a growing public health problem worldwide. It is the " Silent thief" which is often unrecognized until fracture. With a predicted dramatic increase of the older population in both developed and developing countries, the numbers of those with osteoporosis and suffering fractures is set to increase dramatically. Osteoporosis is defined as a systemic skeletal disease characterized by low bone mass and micro architectural deterioration of bone tissue with a consequent increase in bone fragility and susceptibility to fracture. The lifetime risk for an osteoporotic fracture is 30-50% in women and 15- 30% in men. Both bone formation and resorption are governed by complex interactions of genetic, environmental, nutritional, hormonal, age-related and lifestyle factors. Bones grow in size during the first two decades of life, with acceleration during adolescence, followed by a period of consolidation. Bone mass subsequently declines with ageing. This is a universal phenomenon, occurring in both sex and in all races. At all ages, women have less bone mass than do men. With ageing this difference becomes more pronounced. It is stated by International Osteoporosis Foundation that one out of 8 males and one out of 3 females in India suffer from Osteoporosis, making India one of the largest affected countries in the world. The increased prevalence of artificial and premature menopause accelerates osteoporotic

changes in women. Osteoporosis is somewhat similar to high blood pressure. For instance, if somebody has high blood pressure, he or she may not know it because people rarely experience any symptoms from an elevated blood pressure. Untreated hypertension causes damage to blood vessels and may end up in stroke, CVA etc. over many years. Similarly, when somebody develops a fracture from osteoporosis, it's likely that he or she might have the problem for years. World Health Organization has declared the decade 2000-2010 as the "Bone and Joint Decade." Government of India under the department of AYUSH, has also included Osteoporosis in its "Golden Triangle Partnership Programme. Even though now people are more health conscious and undergoing routine check-ups which include monitoring of Blood Pressure, Sugar, Lipid Profiles, Liver and Kidney function tests, it miss the tests to assess the health status of bone. Common man and even medical professionals are least bothered about it. So Osteopenia/Osteoporosis is often diagnosed at the most devastating stage. Number of researches conducted over Osteoporosis is less while comparing to diseases like Diabetes Mellitus, Cardiovascular Diseases, Stroke etc. 'Prevention is better than Cure' should be the main point to be remembered while treating Osteoporosis. Early detection and prevention of fractures is the vital step in treating Osteoporosis.

Ayurvedic Treatment and Management Approach Increase in life expectancy and following faulty lifestyle – unwholesome

food and sedentary life – are the culprits behind the increased prevalence of Osteoporosis. The first factor is non-modifiable and the disease itself is Swabhava bala pravrittjanya vyadhi. Hence, utmost care should be given to modify the second factor – through proper following of Dinacharya and Ritucharya to fight against the dreadful disease. Vatadosha and Asthimajjadhatu are the basic stones of samprapti. This condition may occur due to both Santharpana and Apatharpana. Apatharpana directly causes Vatavidhi, while santharpana leads to srotorodhaandavarana which in turn causes vatavidhi. There is less chance for Asthimajjadushti to occur alone without the involvement of other dhatus. So, Rasa Rakta, Mamsa and Medodhatu may also be involved in the samprapti. Therefore, treatment should start from the level of Jadaragni and Dhatwagni. Updated signs and symptoms of Osteoporosis as per the available literature are exactly similar to the lakshanas of Asthimajjakshaya. Asthitoda, Danthakeshanaghashatanam are the features of Asthikshaya. Majjakshaya shows Asthisoushrya, Bhramaand Timiradarshana. Asthigathavatha is having the features like Sakthisandhiasthisoola, Teevrabalakshaya and Majjagathavatha shows Asthisoushryam, Aswapna, Sthabdhatha and Ruja.(1) The first stage of the disease can be considered as Asthikshaya or Asthigathavatha, which is mainly characterised by different kinds of pain and deformities of upadhatu and malas of Asthi. Dantha, Nagha, Keshha etc. When the disease progresses, as per the principles of Anulomakshaya, it will affect

majjadhatu and manifest as Asthisoushira , which may lead to Bhagna in the later stage. So it is better to compare Osteopenia with Asthikshaya or Asthigathavatha and Osteoporosis with Majjakshaya or Majjagathavatha. While considering Asthikshaya , prevention should be the first step. Aharadravyas having madhura, guru, snigdha, ushnagunas which are Vatadoshashamaka and Asthimajjaposhaka have to be included more in diet. Swadutikta rasa pradhanadravyas, ksheera,ghrita etc. have specific action on Asthi Majja Dhatu.(2) As per the recommendations of WHO, daily Calcium and Vitamin D requirements are more for adolescents, pregnant ladies and old age people especially for peri-post menopausal ladies. Tilam, Shimbeedhanyam, ksheeram, ghrita, shatavari, kharjoora, vaataada, kukkutaanda, matsya, Asthibaddhamamsa, mamsarasa etc. should be included in diet. Excessive Katuamlalavana rasa, laghurookshasheetaaharas like fried spicy items, bread, biscuits, soft drinks etc. should be avoided. Utmost care should be given for the Asthisamrakshana of Soothika as garbhakaala and prasava cause vataprakopa and Asthikshaya. Similarly, Bhagna rogi should be provided with Asthimajjaposhakadravyas, along with bhagna management. Abhyanga, Vyayama, Athapaseva etc. should be included in daily routine for promoting bone health. Dantadhavana and Tailagandusha will help to maintain dental hygiene and health. Shiroabhyanga will prevent excessive hair fall and greying.

Ushnajalasnana is vatashamaka and balavardhana.

## REFERENCES

- Cooper C, Campion G and Melton LJ 3rd , Hip fractures in the elderly: a world-wide projection, Osteoporos Int. 1992 Nov;2(6):285-9
- Melton III LJ, Chrischilles EA, Cooper C, Lane AW Riggs BL, Perspective: How many women have osteoporosis?, J Bone Miner Res 1992;7:1005-10
- Randell A, Sambrook PN, Nguyen TV, Lapsey H, Jones G, Kelly PJ and Eisman JA, Direct clinical and welfare costs of osteoporotic fractures in elderly men and women, Osteoporosis Int 1995;5:427-32
- Reginster JY and Burlet N., Osteoporosis: A still increasing prevalence and Bone 2006;38: S4-S9
- Kanis JA, Johnell O, De Laet C, Johansson H, Oden A, Delmas PD, Eisman JA, Fujiwara S, Garnero P, Kroger H, McCloskey EV, Mellstrom D, Melton LJ, Pols H, Reeve J, Silman A and Tenenhouse A, A meta-analysis of previous fracture and subsequent fracture risk, Bone 2004;35(2):375-82
- Jasmine Jaypee et al., A Clinical Study on the role of Shatavari in minimizing the risk of Post-menopausal Osteoporosis , Department of Prasutitantra and Streeroga, 2006, IPGT and RA, GAU, Jamnagar
- Aruna Datta: Sarvanga Sundara Commentary on Astanga Hridaya Sutrasthana, 11/19, Ed. A.M. Kunte, Chaukhamba, (1982)

Nirmal Saxena editor. Yogatarangini. Varanasi: Chaukhambha Sanskrit bhavan, 1st ed 2007; pp454. p225

9. G.S.Lavekar, M MPadhi, G.V.R.Joseph, S.Selvarajan et.al. Database on Medicinal plants used in Ayurveda and siddha. reprint 2008. vol 5. New Delhi: central council for Research in Ayurveda &Siddha; pp 552. p376

10. P.C.Sharma, M.BYelne. T.J.Dennis. Database on Medicinal plants used in Ayurveda. volume2. New Delhi: central council for Research in Ayurveda & Siddha. Reprint 2005; pp567. p1

11. G.S.Lavekar, M MPadhi, G.V.R.Joseph, S.Selvarajan, et.al. Database on Medicinal plants used in Ayurveda and siddha, reprint 2008. vol 5 New Delhi: central council for Research in Ayurveda &Siddha; pp 552. p187

12. P.C.Sharma, M.BYelne, T.J.Dennis, Database on Medicinal plants used in Ayurveda. volume2. New Delhi: central council for Research in Ayurveda & Siddha, reprint 2005; pp567. p450

13. P.Himasagara Chandra Murthy editor. Rasasastra the mercurial system 1st ed. Varanasi: chaukhambha Sanskrit series office 2011; pp 497. p.335