BALA RASAYAN AND OSTEO-ARTHRITIS: A CLINICAL REVIEW

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ABSTRACT

Sandhigata Vata (Osteoarthritis) is the commonest form of articular disorder. It is a type of Vatavyadhi which mainly occurs in Vriddhavastha due to Dhatukshaya, which limits everyday activities such as walking, dressing, bathing etc. thus making patient disabled / handicapped. It being a Vatavyadhi, located in Marmasthisandhi and its occurrence in old age makes it Kashtasadhya. Vata Dosha plays main role in the disease. Shula Pradhana Vedana is the cardinal feature of the disease associated with Sandhishotha with Vata Purna Druti Sparsha, lack of movement of the joints or painful movement of the joints. Sandhigata vata is related with ageing (Dhatu Kshaya-destruction of joint protecting mechanism), so Rasayan chikitsa is very effective in its management because it slowdown the process of destruction (ageing) in the body and helps in rejuvenation of Nava Dhatu. Acharya’s also describes the Rasayan chikitsa in the management of Vata vyadhies (Ch.Chi-28) hence we will select the “Bala (Sida corfolia) Rasayan” to assess the outcome in diseased persons.

Key Words: Osteoarthritis, Sandhigata Vata, Bala Rasayan, Vata Vyadhi, Ayurveda.

INTRODUCTION

Worldwide, osteoarthritis is the most common joint disorder. In western countries, radiographic evidence of this disease is present in the majority of persons by 65 years of age and in about 80% of persons more than 75 years of age. Approximately 11% of persons more than 64 years of age have symptomatic osteoarthritis of the knee. The non-steroidal anti-inflammatory drugs (NSAIDs) are the main drugs of choice in modern medicine which has lots of side effects; therefore they are not safe for long-term therapy.
Sida cordifolia (bala, country mallow, heart-leaf sida or flannel weed) is a perennial sub-shrub of the mallow family Malvaceae native to India. It has naturalized throughout the world, and is considered an invasive weed in Africa, Australia, the southern United States, Hawaiian Islands, New Guinea, and French Polynesia. The specific name, cordifolia, refers to the heart-shaped leaf. S. cordifolia is used in Ayurvedic medicine. Rajanighantu describes this herb as extremely bitter (atitikta), yet madhura, and it is beneficial in deranged pitta. It cures diarrhea and is invigorating and nutritive. It is also efficacious in diseases caused by deranged kapha. The rejuvenating action of this herb extends to the nervous, circulatory, and urinary systems. It has a diuretic effect and is useful in urinary problems, including cystitis. Being cooling and astringent, it is used in inflammations and bleeding disorders also. Researchers suggest that it has hypoglycaemic, anti-inflammatory, and analgesic (pain relieving) properties. Because the leaves of Sida cordifolia contain small amounts of both ephedrine and pseudoephedrine many nutritional companies have included it as a weight loss product.

AIMS AND OBJECTIVES
1. To search and re-evaluate Bala Rasayan and Sandhigata-Vata in various texts including Vedas, Puranas, Yogic and Ayurvedic literatures with references.
2. To understand the chemical properties, therapeutic benefits, and toxicity in the literature and research papers.

MATERIALS AND METHODS
This article is based on a review of Ayurvedic texts and research papers. Materials related to Bala Rasayan, Sandhigata vata and other relevant topics have been collected. The main Ayurvedic texts used in this study are Charak Samhita, Sushruta Samhita, Astang Sangraha, Astang Hridaya, Madav Nidana and available commentaries on these. We have also referred to the modern texts and searched various websites to collect information on the relevant topics.

SANDHIGATA VATA
If we go through our ancient literature, Sandhivata is briefly described in Ayurvedic texts. In the Vruhattaryi, Acharya Charaka has described the disease Sandhigatavata under Vatavyadhi Chikitsa chapter. He has mentioned it as “Sandhigata Anila”. There, he has mentioned its symptoms but not the treatment. Acharya Sushruta has described the disease Sandhigata Vata under Vatavyadhi chapter. He has given its symptoms and the line of treatment. He added a
new symptom i.e. ‘Hanti Sandhin’ in the symptoms shown by Acharya Charaka (Su. Ni. 19). Acharya Vriddha Vagbhata and Vagbhata accepted the symptoms given by Acharya Charaka and line of treatment given by Acharya Sushruta. (Su. Ni. Vatavyadhi 15/14) Acharya Bhela has not clearly mentioned about this disease. However, while explaining the Asthi-Majjagata Vatavyadhi, he has described Sandhi Vichyuti (Bhel Chi. 24/47-49).

Acharya Harita has mentioned the line of treatment like Bhedana Kriya, Sneha Upanaha, Agnikarma, Bandhana, Mardana etc. (H. S. 3 Sthana, Chap. 23 Vatavyadhi Chikitsa). Acharya Madhavakara, in Madhava Nidana has mentioned the symptoms of Sandhigata Vata under the chapter of Vatavyadhi. He has quoted new symptom i.e. Sandhinasha, Sandhishoola, Sandhishotha. (Ma. Ni. 22/14). Acharya Bhavamishra has described the disease in Madhyakhanda of Bhavaprakash. He has given similar description of the entity as given by Acharya Sushruta. (Vatavyadhi Chap. 24/258 Mad. Kh. Chikitsa Prakarana). In Chakradatta and Bhaishajya Ratnavali, the disease has been described from the management point of view. In Chikitsasarasangraha and Yogaratnakara both diagnostic and treatment aspects of this disease have been mentioned without any specific addition in the knowledge. Yogaratnakara mentioned as Sandhigata Vata in the chapter of Vatavyadhi Nidanam also mentioned Hanti Sandhigata. (Vatavyadhi Chapter Vol. 1)

Sandhigata vata vis-a-vis osteoarthritis is a type of Vatavyadhi. The vitiated vata when takes shelter in sandhisthana causes pain, swelling, stiffness, crepitus is known as Sandhivata. It is most common type of arthritis in men over 40 years. It can affect the hands, hips, shoulders, knees etc. It is one of the most frequent causes of joint pain and physical disabilities in advancing years of life. About the etiopathogenesis of SandhigataVata much descriptions are seldom witnessed. On the basis of common etiopathogenesis of Vatavyadhies it is clear that vitiated Vata (Vyana vayu) when takes shelter in sandhisthana leading to degeneration of asthidhatus and decrease of Shlesaka Kapha and disturbs the normal structure and functions of joints and produces the Sandhivata.

On the basis of above mentioned aetiopathogenesis of Sandhigata Vata, it is clear that the main etiological factor for vitiated Vata is ‘dhatukshaya’. The ayurvedic therapeutic nucleus in Sandhigata Vata is based on the principle to check or slowdown the process of dhatukshaya and to pacify vata through various means like ahara-vihara-ausadha, shamana (Palliative measures) and samsodhana (Purificatory measures) karma.
In *Vriddhavastha*, all *Dhatus* undergo *Kshaya*, thus leading to *Vataprakopa* and making individual prone to many diseases. Among them *Sandhigata Vata* stands top in the list. The incidence of osteoarthritis in India is as high as 12%. It is estimated that approximately four out of 100 people are affected by it. Osteoarthritis is the most common articular disorder begins asymptotically in the 2nd & 3rd decades and is extremely common by age 70. Almost all persons by age 40 have some pathologic change in weight bearing joint, 25% females & 16% males have symptomatic osteoarthritis.

Allopathic treatment has its own limitation in managing this disease. It can provide either conservative or surgical treatment and is highly symptomatic and with troublesome side effects. Whereas such type of conditions can be better treatable by the management and procedures mentioned in *Ayurvedic* classics.

Sandhigatavata (Osteoarthritis) is a chronic, progressive and degenerative disorder of the joints. In modern medical science, a lot of research works have been conducted but still no radical therapy is available for Sandhigata Vata (Osteoarthritis). Some drugs like NSAIDs, Corticosteroids and Opid analgesics are used in routine practice to provide some relief in signs and symptoms. These medications usually provide quick relief in symptoms but causes a number of unpleasant and intolerable side effects.

Sandhigata vata is related with ageing (Dhatu Kshaya-destruction of joint protecting mechanism), so Rasayan chikitsa is very effective in its management because it slowdown the process of destruction (ageing) in the body and helps in rejuvenation of Nava Dhatu. Acharya’s also describes the Rasayan chikitsa in the management of Vata vyadhies (Ch.Chi-28) hence we will select the “Bala (Sida corfolia)” Rasayan to assess the outcome in diseased persons

**BALA RASAYANA**

It is used in neurological ailments, especially in Stroke rehabilitation. Known as "malva branca", it is a plant used in Brazilian folk medicine for the treatment of inflammation of the oral mucosa, blenorrhrea, asthmatic bronchitis and nasal congestion, stomatitis, of asthma and nasal congestion and in many parts of Africa for various ailments, particularly for respiratory problems. It has been investigated as an anti-inflammatory, for preventing cell proliferation, and for encouraging liver re-growth. Due to its ephedrine content, it possesses psycho-stimulant properties, affecting the central nervous system and also
the heart. A 50% ethanolic extract of Sida cordifolia tested on rats showed potent antioxidant and anti-inflammatory activity comparable with the standard drug deprenyl. The plant has demonstrated anti-pyretic and anti-ulcerogenic properties. The aqueous extract of Sida cordifolia stimulates liver regeneration in rats.

*Sida Cordifolia* is a plant native to North-east Brazil. Research suggest that it has hypoglycaemic, anti-inflammatory, and analgesic (pain relieving) properties. Because the leaves of Sida cordifolia contain small amounts of both ephedrine and pseudoephedrine many nutritional companies have included it as a weight loss product.

**Medicinal Uses:** Sida Cordifolia has been used in India for over 2,000 years now to treat a variety of health disorders like bronchial asthma, cold & flu, chills, lack of perspiration, headache, nasal congestion, aching joints and bones, and edema. One of its uses is in weight loss too as the ephedrine alkaloids control metabolism in human body.

- It is one of the best medicines for Rheumatism.
- It is also used as cardiac tonic.
- Its herbal extract or tea is used for obesity and obesity related disorders, especially in western countries.
- It is used for all kinds of detoxification and rejuvenation therapies like in medicated enema where its root extract is used for all kinds of nervous disorders like paralysis, arthritis etc.
- It May decrease both blood pressure and heart rate

Has a hypoglycaemic (blood sugar lowering effect), Use as a weight loss supplement, Increases pain tolerance, has an anti-inflammatory effect, Possible antioxidant effect. Though a major Ayurvedic herb, there is still little scientific research available on bala. Test tube research has confirmed the presence of analgesic and anti-inflammatory activities in the aerial portions and roots (Kanth and Diwan, 1999).

**RESULTS**

Studies indicate Bala (*Sida cordifolia*) possesses anti-inflammatory, antiobesity, antistress, antioxidant, immune-modulatory, and rejuvenating properties. It also appears to exert a positive influence on the cardio-pulmonary, and central nervous systems. The mechanisms of action for these properties are not fully understood. Toxicity studies reveal that Bala (*Sida cordifolia*) appears to be a safe compound.
CONCLUSION

Preliminary studies have found various constituents of Bala exhibit a variety of therapeutic effects with little or no associated toxicity. These results are very encouraging and indicate this herb should be studied more extensively to confirm these results and reveal other potential therapeutic effects. Clinical trials using Bala for a variety of conditions should also be conducted.

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