



## POSTMENOPAUSAL KNEE OSTEOARTHRITIS – AYURVEDIC REVIEW

## Ayurveda

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## ABSTRACT

According to Ayurveda, Sandhigata Vata is described in all Samhitas. The diseases produced by morbid Vata dosha are more common in Jaravastha (old age). In Ayurveda the context of menopause is depicted as "Jarapakwa Avastha" of body and Rajonivrutti. Rajonivrutti Janya Laksana is a group of symptoms produced by degenerative changes in the body. Degenerative changes are explained in Ayurveda as Dhatukshaya Lakshana. Vata Dosha dominance is seen in the later stage of life. In Ayurveda, Menopausal symptoms are regarded as imbalance of the Dosha [Vata, Pitta, Kapha] and Dhatukshaya which occurs as a natural & gradual consequence of aging. Ayurvedic treatment for menopause involves correcting hormonal imbalance with appropriate diet, Samshamana therapy, internal detoxification (Panchakarma therapy), Rasayan therapy and Yoga therapy.

## KEYWORDS

Menopause, Sandhigata Vata, Vata Vyadhi

## INTRODUCTION

Knee osteoarthritis (OA) is the most frequent kind of arthritis and is a main reason for disability that abridged the quality of life. "India is expected to be the chronic disease capital, with 60 million people with arthritis, by 2025. OA is more common in women than men, but the prevalence increases dramatically with age" Nearly, 45% of women over the age of 65 years have symptoms while radiological evidence is found in 70% of those over 65 years" OA of the knee is a major cause of mobility impairment, particularly among females'

In Ayurveda, the disease *Sandhigata Vata* resembles with OA, which is described under *Vatavyadhi*. Sushruta has described the disease in the *Vatavyadhi* chapter under the heading of *Sandhigata vata*, while Charaka has described *Sandhigata vata* under the *Vatavyadhi* as *Sandhigata Anila*. The diseases produced by morbid *Vata dosha* are more common in *Jaravastha* (old age).

## MATERIALS AND METHOD

Ayurvedic classics, Textbooks of clinical medicine, and e-publications were consulted and reviewed for carrying out the present work.

## OBSERVATION AND ANALYSIS

Aetiology- Knee osteoarthritis is classified as either primary or secondary, depending on its cause. Primary knee osteoarthritis is the result of articular cartilage degeneration without any known reason. This is typically thought of as degeneration due to age as well as wear and tear. Secondary knee osteoarthritis is the result of articular cartilage degeneration due to a known reason. Main cause of secondary OA is Posttraumatic Postsurgical, Congenital or malformation of the limb, Malposition (varus/valgus), Scoliosis, Rickets, Hemochromatosis, Chondrocalcinosis, Ochronosis, Wilson disease, Gout, Pseudogout, Acromegaly, Avascular necrosis, Rheumatoid arthritis, Infectious arthritis, Psoriatic arthritis, Hemophilia, Paget disease, Sickle cell disease. The relationship between OA and menopause was first described by Dr. Cecil and Harper in 1925 and by 1952 was termed "menopausal arthritis"

The relationship between OA and menopause was first described by Dr. Cecil and Harper in 1925 and by 1952 was termed "menopausal arthritis". Incidence and prevalence rate of postmenopausal syndrome is 78% of population, but only 19.5% of the symptomatic women take treatment. Currently, the number of menopausal women is about 43 million and projected figures in 2026 have estimated to be 103 million. The higher prevalence of OA in older women is, in part, a result of oestrogen deficiency making hormone replacement therapy (HT) an important avenue to explore with consideration to preservation of joint health in OA. Incidence and prevalence of OA are significantly greater in women than in men after the age of 50 and there is a greater difference in the loss of cartilage volume between the sexes that becomes more prominent with age. Particularly in knee and hip OA, the prevalence and risk rapidly increase from menopausal age (around

50 years) to 75 years when compared to men of similar age. The increased OA prevalence and cartilage decline in post-menopausal women suggests that there could be a role of sex hormones on maintenance of joint health. Several earlier reviews investigating the effect(s) of endogenous sex hormones in post-menopausal women on OA concluded that there is an association between decreased endogenous estrogen levels and an increased risk and incidence of OA. More recently, a study found that lower serum estradiol and progesterone were associated with increased knee effusion synovitis in post-menopausal women, whereas higher levels of endogenous progesterone were associated with greater cartilage volume.

Osteoarthritis can be correlated with Sandhigata Vata in Ayurveda. Acharya Charaka has explained this disease under *Vataja Nanatmaja Vyadhi*. He had explained this condition with symptoms such as pain while walking, inflammation and crepitus present in joint. Acharya Sushruta has added peculiar symptoms like degenerative changes in joints as the symptoms of Sandhigata Vata other treatment pathy has its own limitation in managing osteoarthritis. The pharmacological management of osteoarthritis includes the administration of pain killers and Non-Steroidal Anti-Inflammatory Drugs (NSAIDs). But this line of treatment is not adequate for pain relief nor deceleration in disease process. And non steroid anti-inflammatory medicines cause many side effects. Such type of rheumatological condition can be better treated with application of various Shodana (Panchakarma) and Shamana Chikitsa (oral medicine) in Ayurveda. The line of treatment in the study is based on the Chikitsa Sootra (recommendation) from classical books of Sandhigata Vata (osteoarthritis).

## RISK FACTORS FOR OSTEOARTHRITIS

Exact aetiology of OA is not clear. The incidence of the disease increases with the age. The risk factors for OA of the knees, hips and hands have been depicted in the table as under:

**Table 1: Risk Factors for Osteoarthritis<sup>SMVI</sup>**

Risk factor	Effect
Age	Increases with age Maximum incidence after the age of 80
Trauma	Joint fractures and injuries lead to increased risk for OA
Occupation	Incidence is more in persons doing heavy physical work like Labourers. Exercise
Exercise	OA is common in sports persons or those doing aggressive exercise
Gender	Men under the age of 50 Women after the age of menopause
Genetics	Incidence have been found to be increased in children of parents with early onset OA
Obesity	Increases the risk of OA

Diet	Increased risk in people with lower vitamin C and D blood levels
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### MANAGEMENT STRATEGIES

Sandhigatavata should be planned by taking into consideration of factors as doshic involvement, vitiated dhatu. In case of dhatukshaya (degenerative changes), treatment should be given for santarpana and dhatuposhana (nutrition). In menopausal age dhatukshaya (degenerative changes) is seen. According to Charak "Vighatana of Samprapti" is the chikitsa. Sandhigatavata is a vatika disease, mainly occurring due to Dhatukshaya or Avarana, so, general treatment of vatavyadhi like snehana, swedan, mriduvirechan, niruha basti, vataharaasadhis, ahar and vihar etc can be adopted considering its etiology.

Acharya Charak has mentioned in vatavyadhichikitsa about the Brimhana measures in different forms like bhojana, snigdhasweda, seka, basti etc. are beneficial for the patients suffering from vatarogas. All the Acharyas gives prime importance to Snehanachikitsa in the management of Sandhigatavata. Snehana can be performed both Bahya and Abhyantara. Bahya Sneha include - Abhyanga, tarpana, Murdhaitala etc., and Abhyantara Sneha include Bhojana, pana, nashya and Basti. Sushruta has explained the specific line of treatment of sandhigatavata as snehana, upanaha, agnikarma, bandhana and mardana. In Chakradutta and Bhaishjya Ratnavalli there is mention of vataharaganas. Chakradutta mentioned drugs like- Aswagandha, Bala, Dasamoola, Sunthi, Rasna etc. And Bhaishjya Ratnavalli mentioned - Nirgundi, Guggulu, Gandhaprasarani, Rasna, Bala, Shigru etc. Vagbhata has mentioned snehana, daha and upanaha if vayu get aggravated in snayu, sandhi and sira.

### DIET AND REGIME

At present there are three groups of treatment measures available for OA: medicinal, surgical and non-medicinal. Surgery is the last measure where there is no scope for management by medicines. Medicinal therapy helps to reduce pain and thus improves the quality of life. Better response can be obtained by simultaneously using small quantity of medicine in combination with other measures like exercise, weight loss and physical therapy which help to avoid toxicity of drugs and by proper dietetic practices and adopting the daily and seasonal regimes illustrated in Ayurvedic texts. Ahara (diet) and Vihara (lifestyle) are the key modalities of prevention and management of diseases in Ayurveda. According to Ayurveda, the overall metabolism of the body depends upon proper functioning of Agni and improper dietary habits cause deranged functioning of Agni leading to various metabolic disorders. Maintaining a strong Agni, balancing the Doshas, nourishing the Dhatu through a healthy diet is a key way to optimize metabolism. Gogharta (Cow's ghee) has been given foremost importance and has been an inevitable part of diet in the Indian cuisine. Ayurveda considers Gogharta as the best among all fats. Gharta can act on various levels of metabolism correcting the functions of Agni, Doshas and Dhatus. When digestion becomes normal Poshaka dhathu is formed from excellent Ahara rasa which enhances Bala, Varna, Ojas etc. The Rasayana effect of Gharta helps to maintain the quality of Dhathus formed thereby promote health and longevity by improving metabolism and provides a healthy body. Ayurveda classics emphasizes that Ksheera (milk) can be consumed by all healthy individuals. In fact, it further states that everyone should take milk. It is beneficial for healthy individuals, there is no better Vrshya (aphrodisiac) than milk; there is no better life prolonger than milk. A regular intake of milk will pacify all diseases and also slow down the ageing process.

According to vagabhata goksheera (cow's milk) is jeevaniya (strengthening effect), rasayana (acts as immune-modulator), medya (memory enhancer), balya (boosts the bodily strength, cures dyspnea, dizziness, toxicity, cough, dysuria, bleeding disease. acharya sushruta goksheera (cow's milk) is increases moistness in the channels and tissue pores, slightly unctuous, heavy for digestion, rejuvenator, mitigates rakta and pitta aggravation, cures bleeding diseases, cold in potency, sweet in taste, best to mitigate aggravation of vata and pitta. acharya caraka goksheera (cow's milk) is sweetness, coldness, softness, unctuousness, dense, smooth, slimness and heaviness, slowness and clarity. Similar to that of Ojas guna. According to Charak "Samprapti Vighatana" is the main Chikitsa. Milk basic protein increases bone mineral density and improves bone metabolism in healthy young women. Due to the fact that Sandhigatavata is primarily caused by Dhatukshaya or Avarana,

common Vatavyadhi treatments such as Snehana, Swedan, Mriduvirechan, Niruha basti, Vataharaasadhis, Ahar, and Vihar, among others, can be used in order to treat it.. ksheera and ghrita preserves the artava for longer duration, and hence delays menopause. The drugs having phytoestrogen properties like ashwaganda, shatavari are good candidates for early-stage OA treatment, especially osteoporotic OA because of its anti-resorptive property. These drugs are potent in antagonizing bone resorption, which can effectively decrease bone remodelling and prevent subchondral bone loss and the deterioration of microarchitecture and biomechanical properties. Additionally, these drugs directly target cartilage tissue, preventing cartilage damage and maintaining healthy cartilage. In addition to the direct or indirect protective role of these drugs on articular cartilage, subchondral bone, and the surrounding joint tissues, including the synovium and muscle, the joint tissues themselves interact with each other, thus maintaining joint organ homeostasis as a whole and finally delaying joint degeneration.

### CONCLUSION

Menopause is related with the vatadosha dominated stage of life. Menopause is attained at the age of 50 years according to the various literature and with the commencement of parihani avastha of an individual. In this stage the seven dhatu undergoes gradual deterioration. Among which asthi kshaya and sandhi shaitilya occurs in asthidhatu kshaya. Arthritis and osteoporosis occur in this condition. The drugs having phytoestrogen properties like ashwaganda, shatavari are good candidates for early-stage OA treatment, especially osteoporotic OA because of its anti-resorptive property. These drugs are potent in antagonizing bone resorption, which can effectively decrease bone remodelling and prevent subchondral bone loss and the deterioration of microarchitecture and biomechanical properties. Additionally, these drugs directly target cartilage tissue, preventing cartilage damage and maintaining healthy cartilage. In addition to the direct or indirect protective role of these drugs on articular cartilage, subchondral bone, and the surrounding joint tissues, including the synovium and muscle, the joint tissues themselves interact with each other, thus maintaining joint organ homeostasis as a whole and finally delaying joint degeneration.

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