

PREVENTION AND MANAGEMENT OF SHANDIGATAVATA W.S.R (OSTEOARTHRITIS)

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ABSTRACT

Ayurveda is the science of life, a healthy and longevity is always desirable from it. These objectives lead to an improved quality of life for all people. Living in the 21st century has its advantages but with fast and stressful life style comes disadvantages also. One disadvantage is having unhealthy diet and faulty life style, Around the world osteoarthritis, osteoporosis obesity and cardiovascular diseases are affecting the health status. The disease osteoarthritis is a growing public health problem worldwide. Currently it is estimated that over 250 Million people worldwide suffer from this disease. In *Ayurveda Sandhivata* gets its entity in the chapter of *Vata vyadhi* which obviously are co-related with neuromuscular disorder including disease of the joints. It is a type degenerative and articular disorder affecting mainly in the weight bearing joint, in advancing age. In radiographic survey it was observed that 2% of females who are less than 45 years old, 30% of 45 to 65 years age and 68% in older than 65 years are affected by this disease. *Ayurveda* recommends healthy life style through *Aahara*, *Vihara*, *Aaushadh*, different kinds of karmas to prevent all kind of diseases.

Keywords: *Sandhivata*, Osteoarthritis, *Vatavyadhi*, prevention and management.

INTRODUCTION

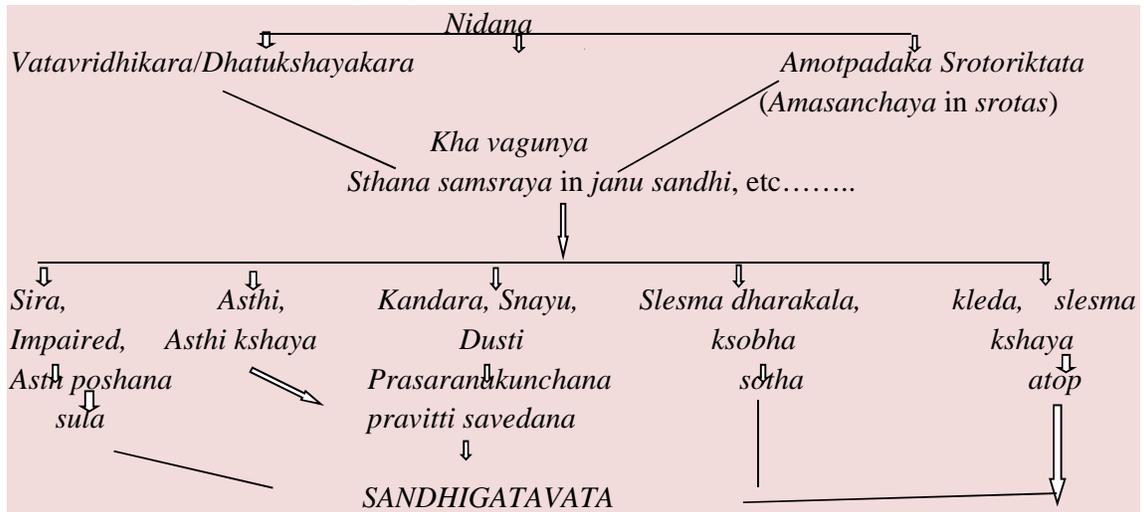
Ayurveda propagates whole some health. These objectives lead to an improved quality of life for all people. There are innumerable diseases that are barriers in attaining these objectives. All the disease in the body whether in *shakha*, *kostha* or *marma pradesha* are influenced mainly by *vata*. *Prakupita vata* is responsible for several types of disease in body. *Sandhigata-vata* is one such disease in which the vitiated *vata* localizes in the *asthisandhis* of the body. It is a condition common in the *vridhdhaawastha* coinciding with the *vata* predominant phase of life. Metabolic and degenerative disease of connective

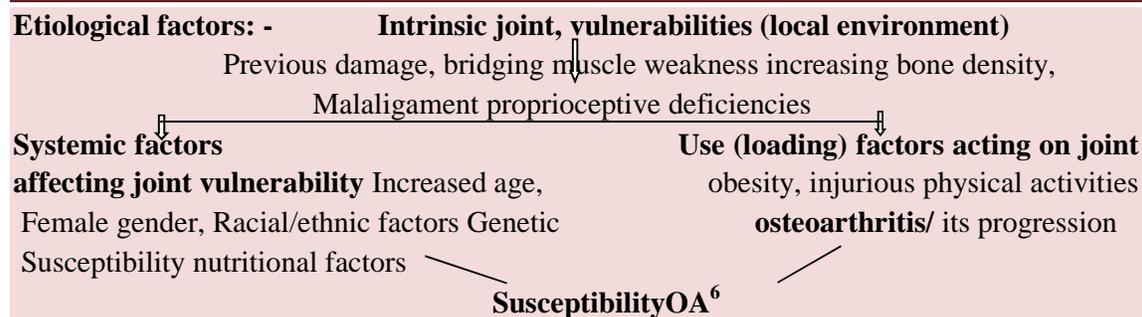
tissue and joint problem are quite affluent today. During different stages of the human life disease prevalence is common due to genetic, infection, infestation, systemic, environmental age related and so on. In *Ayurveda Sandhivata* gets its entity in the chapter of *Vata vyadhi* which obviously are co-related with neuromuscular disorder including disease of the joints. Occur in all classes of people are affected, due to their diet, occupational and other environmental factors. Intake of excess cold items like freezing water, ice-cream, increase the *Sheeta guna* (cold property) of *vata dosha* and the poor people taking less diets or

less quantity of oil substances diets thereby increasing *vata dosha* make the people susceptible to be affected by *Sandhigata vata*. This socioeconomic disease cripples the human life and has posed a challenge to medical science. *Sandhivata* is vataja diseases mainly occur due to *dhatukshaya* (degeneration of tissue) so generally *snehana* (oleation therapy), *swedana* (fomentation), *mridu samsodhana* (mild purification therapy), and *vasti* (enema) etc¹. According to modern point of view it is called Osteoarthritis, is most common joint disease of humans and it is also erroneously called as degenerative joint disease. **Incidence:** - osteoarthritis has reached epidemic proportions in the 21st century, currently it is estimated that over 250 Million people worldwide suffer from this disease. Before 45 years of age it is more common in men, while after 45 years of age it is more common in women. OA is the most common form of arthritis with disease of the knee and hip affecting about 3.8% of people as of 2010. It becomes more common in both sexes as people become older.²

Pathogenesis: -*Ayurveda*, the disease *Sandhigatavata* is described under *Vatavyadhi* in all the *Samhitas* and *Sangraha Granthas*. It is mentioned to have the clinical features like swelling in joints and

pain during the joint movements. It is said to be caused by the excessive intake of *vata vrudhi Kara ahara* like *katu, tikta* and *kashaya rasa pradhana dravya* and *ativyayama* (excessive strain or stress to the joints) or *abhighata* (injuries). it is situated in *marma sthana, Madhyama roga marga*. So being a *Vatavyadhi, Sanadhigatavata* is *Kastasadhya, Madhyama roga marga*, situation in *Marma Asthi Sandhi, Vitiation of Asthi and Majja, Dhatukshya, Vriddavastha* also makes it *Kastasadhya*³. The disease is comparable with osteoarthritis. It is a degenerative joint disease due to the degradation of the joints, the articular cartilages and subchondral bone. It involves the entire joint including the nearby muscles, underlying bone, ligament, synovium and capsule. OA is joint failure, a disease in which all structures of the joints have undergone pathologic change, often in convert joint failure. This is accompanied by- increasing thickness and sclerosis of the subchondreal bony plate. By outgrowth of osteophytes at the joint margins, by stretching of the articular capsule, by mild synovitis in many affected joint, by weakness of muscles bridging the joint. Commonly affected joint include cervical, lumbo-sacral spine, Hip, Knee, First metatarsal /phalangeal joint (MTP).⁴





Classifications of osteoarthritis-

- Primary OA: - Wear and tear with repeated minor trauma, obesity, aging process, all contribute to focal degenerative changes in the articular cartilage of joints. Genetic factors, Metabolic disorders, Age-it is a disease of old age, Endocrinal factors, Idiopathic avascular necrosis- it is occasionally seen in alcoholic middle aged men with high serum lipid and altered blood coagulability.
- Secondary OA :- May appear at any age and is the result of any previous wear and tear phenomena involving the joint, previous injury dislocation of the Hip, Trauma, Malalignments, Inadequate blood sup-

ply, Infections of the joint –e.g. pyogenic, tuberculosis, etc. Diseases interfering with the nerve supply of joint, Inflammatory Diseases, Nutritional bone disease-e.g. Rickets in infancy, Osteomalacia in adults. **Loading factors:** - Obesity, Repeated use of joint-occupational⁵.

Clinical findings:

Signs: - Morning stiffness < 30 min (More prominent on waking up from bed in the morning). Tenderness is over the joint line or is outside of it Mechanical

symptoms:- such as buckling, catching or locking could signify internal derangement, does not actively articulate until the knee is bent ~ 35°, Bouchard's nodes- Interphalangeal joint⁷⁻⁸.

Signs and symptoms	Lakshana
Bone pain	Asthi toda
pain and tenderness during the movement of the joints	Sandhi vedana
Heaviness in the joint\ Limping- due to pain stiffness and deformity of the joint, Synovial thickening and effusion	Vatapoorna drutisparsha
Inflammation in joint\ Swelling of the joint may also be noticed in superficial joint	Sandhi Shotha
Joint\ discomfort pain, & Joint stiffness	Sandhi shoola
Pain during movements of joint\ Morning stiffness	prasarana akunchana pravruithi savedana
degeneration of the joint, due to shrinkage of capsule, fibrosis, muscle imbalance	Hanti sandhi
Deformity in the joint\ osteophytes formation & remodeling osteophytes may be felt on palpation	Hanti sandhi & Vinamana
Weakness\ Determine disability/mobility	Bala kshaya
crackling sounds	Atopa

Assessment parameter⁹

Subjective parameter Pain, Stiffness, Tenderness, Swelling

Objective- CBC, ESR, Range of movement, Walking time, Crepitation, Radiological Assessment

Management Osteoarthritis: - Lifestyle changes- weight loss & exercise,

Physical measures- moderate exercise is beneficial with respect to pain and function, these exercises should occur at least three times per week, **Pain Rx** Heat can be used to relieve stiffness & cold can be relieve muscle spasms and pain.

Non pharmacotherapy: - avoiding activities that overload the joint as evidenced by their causing pain, improving the strength and conditioning of muscles that bridge the joint, so as to physiotherapy is of some help to keep joint moving and build up muscular strength, Middle aged pt's demanding form of weight bearing activity may alleviate all symptoms, Older person: - whose daily constitutional up & down hills bring on knee joint Correction of malalignment. Anti-oxidants – Vit. A, B, C, D, E, K2 etc. to prevent the joint from oxidative damage antioxidants nourish all the tissues.

Pharmacotherapy: - In the modern system of medicine, the treatment adopted for the Osteoarthritis includes administration of anti-inflammatory drugs, analgesics for the pain relief. In much extreme cases some surgical procedures like joint replacements are also adopted. Intra articular injection: - glucocorticoids and hyaluronic acid Surgery: - osteotomy (the operation through cutting of the bone) Arthrodesis (fusion of two joint) Exercise of the joint (cutting away/ taking out joint) Manipulation of the joint under anesthesia with Hydrocortisone injection.¹⁰

Drawbacks of modern therapy for osteoarthritis- In modern medicines there are

various kinds of anti-inflammatory and analgesic are available but these medicines are having their own side effects such as G.I. disturbances, renal abnormalities, peptic ulcer, dizziness, skin rashes etc. All these above reasons indicate that modern medicines are not suitable and safe for Osteoarthritis patients Side effects of Analgesic & Vitamin D is weakness, fatigue, sleepiness, headache, loss of appetite, dry mouth, metallic taste, nausea and vomiting.

Ayurvedic Management- treatment is “*Vighatana* of *Samprapati*”, so the treatment of *Sandhigatavata* aim are: **Agnisamata** – mandagni is responsible for the production of all the disease, **Vatashamana**, **Kaphavridhi** – Increase *Snigdha guna* & *khavaigunya* is corrected, **Rasayana** – it is nourishes *Dhatu* and overcomes *Dhatukshaya*. Make surrounding tissue strong- Muscles, ligaments and tendons are responsible for the joint stability. So surrounding tissue of the joint must be strong to prevent or cure the Osteoarthritis. If they are weak, joint damage will occur soon even with the minimal load. Treatment of OA should be like that, which makes tissue strong. In *Ayurveda*, *Shandhishula* is one of the symptoms of *Mamsakshaya* and *Sandhiphutana*. Provide materials which are required for healthy bone structure: - weak bone can't bear even normal load must be healthy. *Samprapti Vighatana Anusara*: As earlier drugs are having *Vata shaman* properties. So it decreases the aggravated *vata* and prevents the affliction of *sandh*. **Basti**, **Vatahara Aushadha**, **Ahara & Vihara Mridu samshodhana**, In *Ayurveda*, the treatment of *sandhigatavata* is aimed at reducing the *vata dosha* and to increase the *shleshaka kapha* so that the joint spaces are adequately lubricated for the free movement of joints. The drugs mentioned in the *Ayurveda* like *Nirgundi*, *Eranda*,

Bala, etc. are having excellent *vatahara* property and they act as *rasayana*, *balya* and *kapha vardhaka* and help to reduce the *vata*. *Charaka* refers to *taila* as 'maruta-gana' *Taila* is mentioned to reduce *vata* without increasing *kapha*. It also stabilizes the *mansa dhatu*. *Taila* is used as drug of choice in *anuvasana Basti*. Due to its *sneha* property it balances the *rooksha guna* of *vayu*, due to its *ushna guna* takes care of the *sheethala guna* of *vaya*. *Acharya Sushruta* mentions *snehana* (outer/ internal) for management of *Sandhigata vata*. *Asthi dhatu* has *kharatva* which is also combated by *taila*. *Basti Chikitsa* is considered the best management of vitiated *vata*. The *panchkarma* procedure of *Basti* has been hailed as 'ardha chikitsa' by *acharyas* that is, half of the whole treatment *Anuvasana Basti* is a type of *Basti* in which *Sneha dravya* is given by *Basti*. *Matra Basti* is type of *Basti*. It is explained that this type of *Basti* can be given to almost everybody, in all the seasons, without any strict regime of *ahara* and *vihara* and it is *nishpariharya* i.e. it can be given with maximum ease and has no complication thereafter¹¹.

DISCUSSION

Among the disease of locomotory system Osteoarthritis is the most commonly encountered painful condition in this degenerative wear and tear process occurring in the joint. Restricted movement and Tenderness cause due to capsular fibrosis impaction of loose bodies in the joint capsule because of osteophytes which alter the contour of joint and remodeling of bone, according to finding the trial drug repair the irregularity of articular cartilage this may happen due to nutrients to the affected part. As per *Ayurveda* concept, the effect of *rasayana* (rejuvenation) and *snigdha guna* attributed to the drug must have worked in the restricted Move-

ment and tenderness. Mainly drugs, *Ashwaganadha*, *Satavari*, *Ghee*, *Guduchi*, *Vridhadaruka*, *Yavani*, and *Kachura* so it is very effective. *Guggulu*, *Guduchi*, *Kachura*, *Yavani* etc. all are anti-inflammatory properties that drug is effective in reducing swelling. *Guggulu* has properties like *snigdha*, *picchila* (stickiness), *ushna virya* (hot in potency), *vat-anaska sothahara* (anti-inflammatory) and *vedanasthapaka* (analgesic action).

CONCLUSION

It is an age related disease and may persist for rest of the life of the patients. However, as compared to side effects and contraindication of the modern medicines so can use Ayurvedic drugs of *sandhigatavata* for long period no side effects. Effects of *rasayana* considering the *Ayurvedic* concepts of Physiology *rasayana* agent promotes nutrition following modes by direct enrichment of the Nutritional quality of *rasa* (nutritional plasma)-*satavari*, milk and *ghee* and by promoting nutrition. Through improving *Agni* (digestion and metabolism) as *bhallataka*, *pippali* promoting the Competence of *srotas* (microcirculatory channels in the body) as *guggulu* etc. *Rasayanas* are helpful in maintaining general, promoting longevity, increasing memory, mental Faculties and provide preventive measures for maintaining health as well as strengthening Resistance and immunity against disease.

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