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

Soniya Chaudhary¹  Pramod Mishra²  Anamika Soni³ Brahmanand Sharma⁴
¹ PG Scholar ² HOD, ³ Asst. Professor, ⁴ Asst. professor
PG Deptt. of Kayachikitsa, Dr. Sarveapalli Radhakrishana Raj. Ayurved University Jodhpur, Rajasthan, India

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 diseases 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, Aushadh, 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. Sandhi-gata-vata is one such disease in which the vitiated vata localizes in the asthisandhis of the body. It is a conndition common in the vridhaawastha 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 samshodhana (mild purification therapy), and vasti (enema) etc. 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.

**Pathogenesis:** - Ayurveda, the disease Sandhigatavata is discribed 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 pradhan pradraya and ativayama (excessive strain or stress to the joints) or abhigata (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. 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).
Etiological factors: -  Intrinsic joint, vulnerabilities (local environment)

- Previous damage, bridging muscle weakness increasing bone density,
- Malaligament proprioceptive deficiencies

Systemic factors affecting joint vulnerability

- Increased age,
- Obesity, injurious physical activities
- Female gender, Racial/ethnic factors
- Genetic Susceptibility nutritional factors

Use (loading) factors acting on joint

- Increased age,
- Obesity, injurious physical activities
- Female gender

Classifications of osteoarthritis:

- Primary OA: - Wear and tear with repeated minor trauma, obesity, aging per se, all contribute of focal degenerative changes in the articular cartilage of joints. Genetic factors, Metabolic disorders, Age-it is a disease of old age, Endocrinical factors, Idiopathic avascular necrosis-it is occasionally seen in alcoholic middle aged men with high serum lipid and altered blood coagubility.
- 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 supply, 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-occupational.

Clinical findings:

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

<table>
<thead>
<tr>
<th>Signs and symptoms</th>
<th>Lakshana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bone pain</td>
<td>Asthi toda</td>
</tr>
<tr>
<td>pain and tenderness during the movement of the joints</td>
<td>Sandhi vedana</td>
</tr>
<tr>
<td>Heaviness in the joint\Limping- due to pain stiffness and de-</td>
<td>Vatapoonar drutispasrsha</td>
</tr>
<tr>
<td>formity of the joint, Synovial thickening and effusion</td>
<td></td>
</tr>
<tr>
<td>Inflammation in joint\ Swelling of the joint may also be</td>
<td>Sandhi Shotha</td>
</tr>
<tr>
<td>noticed in superficial joint</td>
<td></td>
</tr>
<tr>
<td>Joint\ discomfort pain, &amp; Joint stiffness</td>
<td>Sandhi shoola</td>
</tr>
<tr>
<td>Pain during movements of joint\ Morning stiffness</td>
<td>prasarananakunchana pravruthi savedana</td>
</tr>
<tr>
<td>degeneration of the joint, due to shrinkage of capsule, fibrosis, muscle imbalance</td>
<td>Hanti sandhi</td>
</tr>
<tr>
<td>Deformity in the joint\ osteophyts formation &amp; remodel-</td>
<td>Hanti sandhi &amp; Vinamana</td>
</tr>
<tr>
<td>ling osteophyts may be felt on palpation</td>
<td></td>
</tr>
<tr>
<td>Weakness\ Determine disability/mobility</td>
<td>Bala kshaya</td>
</tr>
<tr>
<td>crackling sounds</td>
<td>Atopa</td>
</tr>
</tbody>
</table>
**Assessment parameter**

**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 pharmaco therapy: - 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 weight bearing activity may alleviate all symptoms, Old person: - whose daily constitutionals 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.

**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 reshes 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, Kaphavriddhi – Increase Snigdha guna & khavaigunya is corrected, Rasayana – it is nourishes Dhatus and overcomes Dhatukhaya.Make surrounding tissue strong- Muscles, ligaments and tendons are responsibal 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, Sandhishula 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 ‘marutagana’ Taila is mentioned to reduce vata without increasing kapha. It also stabilized the mansa dhatu. Taila is used as drug of choice in anuvavasa 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 managemant of Sandhigata vata. Asthi dhatu has kharatva which is also combated by taila. Basti Chikitsa is considered the best managament 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 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 thereafter.

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 counter of joint and remodeling of bone, according to finding the trial drug repair the irregularity of articular cartilage this may happened 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 Movement 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), vatana 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 contra indication 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.

REFERENCES

3. Shastri Kasinath Chaturvedi Gorakhnath, editors. Charak Samhita, vidyodini Hinidi Commentary (chikitsa...
sasthan chapter 28th Verse 37,) Vol. 1 Varanasi: Chaukhambha Bharati Academy; 1989 p.783, 793
5. Textbook of pathology @ 2005, Harsh Mohan, and The Indian Journal of Pathology £Microbiology chapter 26: Musculoskeletal System; p.875

CORRESPONDING AUTHOR
Dr. Soniya Chaudhary
PG Scholar Department of Kayachikitsa, Dr. Sarvapalli Radhakrishana Rajasthan Ayurved University, Jodhpur, Rajasthan, India
Email: renuchoudhary@outlook.com

Source of Support: Nil
Conflict of Interest: None Declared