



SANDHIVATA (OSTEOARTHRITIS) - AN AYURVEDIC REVIEW

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ABSTRACT

Sandhivata vis-a-vis osteoarthritis is degenerative joint disorder. It is described under the nanatmaja vatavikara in Charak Samhita. It has been explained under the same of sandhigata anila, sandhivata, gulphavata or khudavata by different text books of Ayurveda. Symptoms of sandhivata are closely related to osteoarthritis and patients having joint pain, swelling, stiffness, disability and crepitation over joint. This review article aims at describing the sandhivata in different texts and preventive management.

Keywords: Sandhivata, osteoarthritis, dos and don'ts, ayurvedic treatment

INTRODUCTION

Osteoarthritis (OA) is the most common form of arthritis and remains one of the few chronic diseases of aging for which there is little, if any, effective treatment. It accounts for more mobility disability in the elderly than any other disease. Symptomatic knee OA affects roughly 12% of persons 60 years old or older and, despite medical advances, remains for many a major source of pain and function

limitation. Hip OA, though less prevalent than disease in the knee, is common and frequently disabling, and hand OA causes pain and function loss in a large percentage of the elderly. Given the aging of the population and the increasing occurrence of obesity in our population, a major risk factor for disease, estimates suggest a doubling in prevalence from 2000 to 2020 [1].

New conceptualizations of osteoarthritis While the signature pathologic feature of OA is hyaline articular cartilage loss, it is increasingly recognized that OA is a disease of the whole joint and that all structures are affected [2]. Not only is hyaline cartilage lost, but bone remodeling and attrition occur relatively early in the disease process [3].

The number Osteoarthritis patients in Ayurveda hospital and clinic or India have been increasing in recent years [4] General people says that Ayurveda medicine and Panchakarma (detoxification technique) has promising relief effect in osteoarthritis. Researchers claimed that Ayurveda treatment outcome is better than or equal to conventional drug for improvement of pain and knee function [5]. Ayurveda has an elaborate disease classification system of rheumatic disorder as like modern medicine. Herbal and mineral formulations possessing such a combination that has preventive and therapeutic effects are described as Rasayana (immunomodulatory and facilitating regeneration) in Ayurveda. Rasayana therapies have been widely used by Ayurvedic physicians since ancient times to promote health and treat immune inflammatory and degenerative disorders. Ayurvedic medicinal plants have demonstrated remarkable biological effects, especially those of anti-inflammatory and immune-modulatory

activities that are relevant and potentially useful to treatments of chronic musculoskeletal disorders. Several controlled drug trials were conducted to demonstrate efficacy and safety standardized Ayurvedic drugs containing several plants mentioned in Ayurveda classics, for treatment of osteoarthritis (OA). The primary outcome of Ayurvedic medicinal plants have analgesic, anti-inflammatory, chondroprotection, soft tissue healing, anti-osteoporosis, immune-modulation, anti-lipogenesis, anabolic effect, and anti-oxidative stress. The secondary outcome of Ayurvedic anti-arthritis drugs and regimen are to improve digestion and metabolism, normalize the gut function and clear bowel movement [6-9].

In Ayurveda, the disease sandhigatavata is described under vatavyadhi in all Samhita and Sangraha granthas. Vatavyadhi is one of the important groups of disease originating from the Yayu and sandhigata vata is one of them. Sandhigata ata, though not properly defined in some of the Ayurvedic texts is one of the important disease. Sandhigatavata etymologically means the vata affecting the joints (Sandhi of both kinds of large and small).

MATERIAL AND METHODS

Sandhivata is described in different text book of ayurveda

Caraka Samhita

- Sandhigata vata is described in Caraka Samhita without giving any details of etiopathogenesis in cikitsasthana 28th chapter (vaataavyuadhi cikitsa/37).
- Other disorders involving sandhis given by Acarya Caraka are-
- Gulphagraha, Janubheda, Janu Vishalesa- (Caraka Ckitsa 20/11)
- Vaatarakta- (Carak Cikitsa 29)
- Sadhisool in Ashi and majjagata Vata- (Charaka Chikitsa 28/380)
- Sadhivishlesa in Vataja Jwara- (charaka Chikitsa 1/21)
- Parvabheda in Vatapittaja Jwara- (charaka Chikitsa3/85)
- Sandhishula in Antarvegi Jwara- (charaka Chikits 3/39)
- Sandhiruk in poorvaroop of Udara- (charaka Chikits 13/18)
- Parvabheda in vatodara- (charaka Chikits 13/25)
- Janushula in pakwatisara- (charaka Chikits 13/25)
- Sandhibheda and sandhivishlesa in vataja visarpa- (caraka Chikits (21/30)
- Sandhibheda peeda in Vatapittaja Visarpa- (charaka Chikits (21/36)
- Parvabheda in Vatapradhana Visa- (caraka Chikits 23/103)

- Sandhi Vedana in Madatyaya- (caraka Chikits 24/103)
- Parvasthamaba, Paravabheda Parvasankoca in Kupita vayu lakshana- (caraka Chikits 28/20)
- Janu Vedana in Gridhrasi - (caraka Chikits 28/54)
- Sandhicyuti Hanustambha in Vatapradhana Vyadhi- (caraka Chikits 28/72)
- Sandhiruja in Kaphvrita Vyanavayu- (chraka Chikits 28/228)
- Sandhishpuran in Sarwangagata Vata- (caraka Chikits 28/26)

Sushruta Samhita

- Sushruta has defined sandhigata vata in the very first chapter of Nidanasthana-(Vatavyadhi- Nidana/28)
- Other disorders involving joints given by Acarya Sushruta are
- Krostuka Shirsa -(Shusruta Nidana 1/76)
- Vatarakta -(Sushruta cikitsa 5th chapter)
- Avabahuka affecting shoulder joint- (Sushruta Nidana 1/82)
- Paravastambha in kaphavrita Vyanavayu- (sushruta Nidana 1/39)

- Sandhibandha moksha in Kalyakhanja-(Sushruta Nidana 1/78)
- Sandhibandha moksha in pakshaghata -(Sushruta Nidana 1/61)
- Sandhimukta in Bhagna - (Sushruta Nidana 15/6)

Harita Samhita

- In the 20th chapter of triteeya sthana, Harita has mentioned "Sandhishotha" as one of the shukragata vatalakshanas.

Astanga Sangraha

- Sandhigata Vata has been described in Nidana Sthana 15th chapter 16 verse
- Sandhigata Vata is mentioned in Nidana sthana 15/14 and also described in cikitsa sthana 22/22-23.

Madhava Nidana :

- Short description regarding sandhigata vaata has been given in chapter 22nd vatavyadhi Nidana (21st verse)

Cakradatta

- Treatment of sandhigata vata is given in Cakradatta vatavyadhi cikitsa
- chapter 22nd/9th Verse

Sharangad Samhitahara

- Sharangadhara has described Krostuka shirsa vatakantaka in the prathama khanda 7/107-108.

Bhava Prakasha

- Sandhigata vayu lakshana (symptoms) and its line of treatment has been given in the cikitsa sthana 24/258

Nidana (Aetiological factor)

- Nidana is a causative factor of the disease and there are two main categories.

Samanya nidana

- (general etiological factors)

Vishesha nidana

- (specific etiological factors)
- No specific aetiological factors are mentioned for sandhigata vata in the classical texts of ayurveda, so the factors mentioned in the vatayadhi nidana in gernal could be considered as the causative factors of sandhigata vata.
- Samanya nidana of sandhi vata can be grouped into- Aharaja nidana and viharaj nidana.

Aharaja Nidana

Ruksha

Sheeta

Alpa

Laghu

Viharaja Nidana

Atijagarana

Ativyayama
 Bogatikarsan
 Visam upacara
 Aticesta
 Uneven-sittings
 Rakta visravana
 Dhatu kshaya
 Krodha
 Langhana
 Cinta
 Divaswapa
 Plavana
 Shoka
 Bhaya
 Vegadharana
 Marmaghata
 Shighra yana

In Sandhi Vata: Dhatu Kshaya is main factor in the Vitiation of Vata Dosha
Vishesha Nidana of Sandhi Vata (specific causes):

- Ati Vyayama
- Abighata
- Visama Cesta
- Abnormal sitting
- Rogatikarsana

Certain diseases like Rajayakshma, pravahika, pooyameha might cause abnormality in the joints, particularly sandhigata vata in later stage. When the sandhigata dose create indigestion of dhatus in sandhi's then sandhigata vata is produced.

Moreover Rajayakshma is a kaphaja disease. It has affinity for kapha sthanas, sandhi is one of the kapha sthanas.

Samprapti

Nidana	Vata prakopaka nidan
Dosha	Vata esp. vyanavayu, shleshaka kapha
Dushya	Asthi, majja, meda
Srotas	Asthivaha, majjavaha or majjavaha
Srotidushti	Sanga
Agni	Mandagni
Dosha marga	Marmasthi sandhi
Roga marga	Madhyam
Udbhavasthan	Pakvashaya
Vyaktasthana	Asthi-sandhi

ROOP/LAKSHANA (Manifestation of sandhigata vata)

In sandhigata vata manifestation is mostly localised. At the same time we may come across with some generalised vatika lakshanas which may be prominent. First and fore-most symptom is pain at the time of movements of joints, this to srotorodha and vata prakopa.

- Sandhi shula
- Atopa
- Sotha
- Vata purna dhriti Sparsha
- Prasaranaauncana vedana
- Sandhi Hanana

Generalised Manifestation

- Daurbalya (weakness/general debility) due to lack of strength of dhatus produced by vitiated vata.

- Angamarda (Bodyache) generalised body pain.
- Cankramana Kashtata- Difficulatry in walking and doing day to day work.
- Angavakrata- Anatomical deformity of the body part.

Management of Sandhivata

Ayurvedic treatment is person oriented not disease oriented alone. Same treatment cannot be applied to all patient of sandhivata.

In these disease 3 steps of mangement.

1. remove causative factor.
2. follow dos and don'ts.
3. Ayurvedic treatment.

Remove causative factor- avoiding of all causes that have triggered sandhivata.

Follow dos

- Qdrill exercise
- S.L.R. exercise
- Back Extension exercise
- Isometric cervical exercise
- Hamstring exercise
- Knee bending exercise

Follow don'ts.

- Don't sit on ground
- Don't used up stair
- Minimum walk
- Use western toilet

Ayurvedic Treatments

Rasa aushadhi-vata vidvanka rasa, briht vatachintamani rasa, Yogendra rasa are used in sandhivata.

Guggulu- guggulu i the drug of choice in arthritis and are used as ayurvedic pain killer, anti-inflammatory and weight reducing agent. Many preparations like yogaraj guggulu, mahayograj guggulu, triphala guggulu.

Kvatha- rasna saptak, erandamool Single drug like- shallaki, nirgundi, bala, sunthi have proven result in sandhivata.

Natural source of organic calcium- praval pisti, shukti bhasma, kukkutanda tvaka.

Medicated ghee-panchtikta guggulu grit.

Local treatment- localised basti like janu basti or kati basti are very effective in joint pain.

Panchkarma procedure- course of basti are very effective in treatment of sandhivata.

Rasayan therapy-as sandhivata is degenerative disease and rasayan drugs like shatavari, ashvagandha be prevented an delay precipitation of disease.

DISCUSSION

The disease of sandhivata is described under vatavyadhi in all Samhita and sangraha granthas. Pathogenesis of sandhivata not described in ayurveda text, but samprapti of vatavyadhi has been explained in charaka Samhita chiktsa sthan.

Symptoms of osteoarthritis are similar as of sandhivata i.e., joint pain, swelling, stiffness, disability and crepitation over joint. Osteoarthritis has highest prevalence in arthritis. It is chronic degenerative disorder and have multiple etiological factors. It involves the entire joint included muscle underlying bone, ligament, synovium and capsule. Making the surrounding tissue strong to prevent the osteoarthritis.

Qdril-S.L. R strengthening exercise are effective in improvement of pain, function and quality of the life aspect of patient with knee osteoarthritis and flexibility exercise also improve the flexibility of the joint.

Back extension exercise strengthens lower back muscle, which support the lower back muscle.

Isometric neck exercise to release tension, tightness and stiffness. They can reduce pain and increase the flexibility.

Hamstring strengthening exercise can improve overall leg strength, relieve back pain and increase flexibility.

Knee bending exercise – it does not affect the directly the knee joint, but they strengthen the surrounding muscle.

An adequate calcium intake through proper selection of calcium salt is therefore only one of many measures to ensure a healthy skeleton[10] In ayurveda

many natural sources of calcium preparation are used.

Shallaki inhibits the activity of the enzyme 5 lipoxygenase through a non-redox reaction in OA [11]. The key constituents of Shallaki are volatile oil (4-8%), acid resin (56-65%) and gum (20- 36%). The triterpenoids are the active constituents and are collectively called boswellic acids. The gum resin of *B. serrata* usually contains 43% boswellic acids, which contain a combination of six major constituents, mainly 3 acetyl, 11 keto, boswellic acids (AKBA), which help to preserve the structural integrity of joint cartilage and maintain a healthy immune mediator cascade at a cellular level [12], which is active against pain and inflammation by inhibiting leukotriene synthesis.

Panchtikta Ghrita Guggul is a complex compound containing many herbs and guggul. Classical references and clinical suggest it is highly beneficial in the management of Sandhivata [13]. Janu basti relieves pain, stiffness and swelling associated with arthritis and other painful conditions, pacifies the morbidity of Vata in the affected joints, muscles and soft tissues. Janu basti with mahanarayana tail followed by dashmoola kwath nadi-swedana is very effective in the management of janu sahdhigata vata [14].

CONCLUSION

Sandhivata is age related disease and may persist throughout life. Follow dos and don't and ayurvedic treatment are helpful in maintaining general, promoting longevity, mental fatigue and provide preventive measures for maintaining health as well as strengthening against disease.

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