

A SHORT REVIEW ON SANDHIGAT VATA W.S.R. TO OSTEOARTHRITIS

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ABSTRACT

sandhigatvata is one type of *vat-vyadhi*, which is most commonest form of articular disorder. Today's modern era due to sitting jobs, air conditioner atmosphere, lack of proper healthy diet, travelling and old age etc leads to this disease which can be increasing day by day. All the osteoarthritis diseases in Ayurveda have been described under the heading of '*vatvyadhi*'. "*vatpurnadrutisparsch: shothsandhigateanile*" it's the one line unique identity of *sandhigatvata*. Osteoarthritis is one of the major disorder. As per modern science the osteoarthritis disease treatment is only pain killer, they only subside the pain but not cure the cause of diseases. While traditional life science Ayurveda has most effective solution over this.

The present article is an attempt to highlighting on details of *sandhigatvata* with co-relating with osteoarthritis.

Keywords: *sandhigatavata*, osteoporosis, treatment, review.

INTRODUCTION

Sandhigat-Vata is one of the most common *Vatavyadhi*. which can be co-related with osteoarthritis, the prevalence rate of Osteoarthritis is total 14.8 % in which knee osteoarthritis prevalence rate is 10.8% which is more than other⁽¹⁾. In this *Vat* get vitiated due to various causes, as mentioned in *Charak Samhita*. *Acharya charaka* described as "*sandhi gataanila*"⁽²⁾ means *vata* gets located in the *Sandhi* and result in *Sandhigatavata*. In *madhav nidan sandhigata vata* is describes as a ***hantisandhigat: sandhinshoolatopokarotich***" which means this diseases damaged joints having symptoms like pain sensation, cripitation at joints.⁽³⁾In other books '*Akunchana*

prasaranvedana shotha⁽⁴⁾, *atopa*, *hantasandhi*' etc. symptom's are given. It is commonly seen in elder age, which hampers day to day life activity like walking, sitting, bathing, gait etc. So finding its cause and get rid of them i.e. *Nidanparivarjana* and *vatnashak* treatment is important. Hence it is necessary to study this disease thoroughly.

Definition of *sandhigatvata*:

- 1) According to *Acharya Charak sandhigatvata*, is the *vatvyadhi* is which *sandhi shool* (joint pain), *atop* (cripitation) *vat purnadrutispersch*, *shoth* (swelling) etc smptoms are seen⁽⁴⁾.

- 2) According to *Acharya Shushrut*, it is with symptoms of, *hantisandhigat*: (degeneration of joints), *shool* (pain), *shopha* (swelling) at the joints.⁽⁵⁾
- 3) *Acharya Madhav & Vagbhat* have described almost same definition as *Acharya Charaka* and *shushruta samhita*.

Nidan Panchaka of Vatvyadhi

Nidan

There is no specific description about *hetu* of the disease *sandhigat vata*. as it is one of the *vatvyadhi*, the *hetu* of the *vatvyadhi* are to be accepted as the *hetu* of the *vatvyadhi*.

General hetu of vatvyadhi⁽⁶⁾:

1. Aaharaja Hetu

2. Viharaja Hetu

➤ **Aaharaja-Hetu:**

Acharya Charaka has told that *ruksha* (dry), *sheet* (cold), *alpa* (in small quantity), *laghu* (light diet), *Agnimandya*, *tikta*, *katu*, *kashay rasatmaka aahara* (diet) is responsible for the *vataprakop* which leads to formation of *vatvyadhi*.

➤ **Viharaja-Hetu.**

Viharaja-Hetu also plays an important role in the production of *sandhigatvata*. *Laghan* (starvation), *plawan* (swimming), *Ativyayam* (excessive exercise), *Atimaitihuna* (excessive sexual activity), *mal mutra rasadi dhatukshaya*, *diwaswap* (day dreaming), *Ra-trijagran* (Insomnia), *datukshya*, *aaghat* (accidental fall) *Vegadharana* are included in *Vihara Hetus*.

Samprapti (Pathogenesis)⁽⁷⁾

Acharyas have described the following *Samprapati* of the disease *sandhigatavata*.

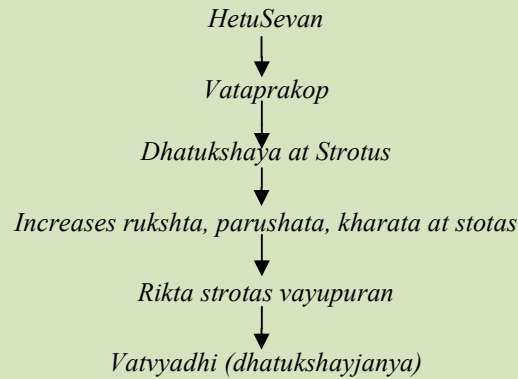


Table 1 : Showing *Samprapti-Ghatakas* of *sandhigatvata*:

SampraptiGhatakas of sandhigatavata	
<i>Doshas</i>	➤ <i>Vat-Pradhana</i> : In <i>kshayjanya-sandhigatvata</i> ➤ <i>Vat-kaphpradhan</i> : In <i>upstambhit-sandhigatvata</i> According to <i>Sushruta</i> .
<i>Dushya</i>	– <i>Rasa, raktamansa, sira, Asthi</i> ,
<i>Agni</i>	– <i>Jatharagni & Dhatwagni-Mandya</i>
<i>Srotas</i>	– <i>Asthivaha strotas</i>
<i>SrotodustiPrakara</i>	– <i>Sanga & Vimargagamana</i>
<i>Udbhavasthana</i>	– <i>Pakwashay</i>
<i>Adhithana</i>	– <i>sandhi</i>
<i>Vyadhimarga</i>	– <i>Bahya marg</i>

Purvarupa⁽⁸⁾

There is no classical description regarding the *Purvarupa* of *sandhigatavata*, ‘*avyaktanam lakshana*’ of *vatvyadhi*

Rupa⁽⁹⁾

Rupa of *Vatvyadhi*, according to different *Ayurvedic* classics areas –

- *bhedoparvasti sandhi shool* (joint pain)
- *vatpurnadrutisparsh*
- *shoth* (swelling)
- *prasarna-kunchnayo pravruttsich svedana* (pain during moment)
- *Atop* (cripitation)
- *hantisandhigat* (degenerative changes at joints)
- *mans-balkshyam*
- *astishosh* (osteoporosis)

Sadhya Asadhyata⁽¹⁰⁾ :

If *sandhigata vat* is occurs newly, having strong immunity not making any complication than it is *sadhya*. Otherwise it is *Krichha Sadhya*. More over if there is dominance of the *vat dosha* & patients develop complication of *Vatvyadhi* then it is *yapya*.

Differential-diagnosis:

shandhishool which are present in *sandhigatavata* have been also described in other diseased condition which are as follows –

- *Aamvata*-along this *jwaranubhuti* also
- *majjagatvata* - Third Vega of *Visha*
- *RaktavritaVata*– *SamaSannipatajaJvara*

Pathya – Apathya:

PathyaAahar and *vihar⁽¹¹⁾*:

sarpi, tail, vasa, majjaseven, snigdha, guruaahar, sek, abhyang (massage), *basti* (enema), *payas, madhur, Amla, lawanrasatmaka Aahar* seven.

Apathya: katu, tikta, laghu, atichinta, ativyayam etc.

Chikitsa of sandhigatvata:

chikitsa sutra of *sandhigatavata* can be mentioned by *yogratnakar*, in which treatment is given as, *agnikarma, snehan, swedan* for *sandhigatavata*.

As Acharya Charak mentioned that “*bahyabhyantar: sneheastimajjagatjayet*” that means treatment of this diseases can be done by *bahyasnehan* (external massage by oil) and *abhyantarsnehapan* (taking of ghee, oil by orally)⁽¹²⁾

As *Sandhigatvata* is *Madhyamamarga gat Vatika disorder^[13]* in which *Vata* gets lodged in *Sandhi*. Hence to treat *Sandhigatavata* drugs acting on both *Vata doshti* and *Asthi dhatu* should be selected. Considering this point, *Basti* medicated with *Tiktadravya, Ghrita* and *Kshira* is specially recommended in treatment of *Asthivaha Srotodusti*.

The *Guggulu* is used mainly in *Vatavyadhi*. The reason it lies on the part of chemical constituents of *Guggulu* and its *Rasa,^[14]Guna^[15], Virya* and *Vipaka* which play an important role for overcoming the ailments. *Guggulu* removes the factor of *Dhatukshaya* by its *Madhura, Katu, Tikta, Kashaya Rasa* and *Picchila, Snigdha Gunas*. It is also effective by removing the obstruction in *Srotas* due to *Lekhana* property in case of disorder caused by *Margawarodhjanya*. In fact, several preclinical and clinical studies suggest that *guggulsterone (guggul)*, *boswellic acid (salakiguggul)* have potential for arthritis treatment.^[16] *Parijata* being *Ushna* in *virya* is strongly *Vatashamaka*. It acts as analgesic and anti inflammatory, *anulomana, deepana, kaphaghna* and *vatashamaka* in nature

SandhigataVata is produced by vitiated *Vata Dosha* with *anubandha* of *Kapha*. So *Agnikarma* is considered as best therapy to pacify these *doshas*. Due to *Ushana, Tikshana, Sukshma, Ashukariguna* it removes the *srotavrodha* and pacify the vitiated *Vata* and *Kapha Dosha* and increase the *Rasa rakta vahan* (Blood circulation). Due to more blood circulation, it probably flushes away the pain producing substance and patients get relief from symptoms.^[17] Also in *Agnikarma*, we transfer therapeutic heat to *twakdhatu* (skin) and gradually to deeper structure^[18] which helps in pacifying pain and other symptoms. When heat is applied to the skin, it causes more blood to flow into the area. When blood flow

increases to an area, it brings along oxygen and nutrients that can help to speed healing. Heat helps to relax muscles, which can decrease some types of pain sensations. The sensation of heat on the skin also provides something called an analgesic effect: it alters the perception of pain so patient don't hurt as much.^[19] *Guduchi*, *Pippalimoola*, *Shunthi* and *guggulu* acts as *Vatashamaka* due to their *Ushnavirya*.

Virechaka drugs are having *Ushna*, *Tikshna*, *Sukshma*, *Vyavayi* and *Vikasi* property, they reaches *Hridaya* by virtue of its *Virya* and then following the *Dhamani* it pervades the whole body through large and small *Srotas*. The *Panchabhautika* combination of *Virechaka* drugs i.e. *Prithvi*, *Jala* and by the virtue of their properties helps in eliminating the morbid humor from *Shakha* to *Kostha* and then out of the body. Secondly, the action of *Virechana* drugs can be considered as either secretory or osmotic in action. During the time of excessive work by intestine, blood supply increases and plasma portion is pulled to intestine. Extra cellular fluid is the medium of the exchange between plasma portion of blood and interstitial fluid that fills the spaces between the cells. This extra cellular fluid on reaching the plasma portion circulates all over the body and comprises of various toxic products, which when passing through intestine may provide the path for elimination of toxic products which in turn helps in relieving the symptoms like pain, inflammation etc.

Basti is important treatment given in the diseases of *vata vyadhi*⁽²⁰⁾. *SnehaBasti* or *Brimhana* type *Basti* acts over different systems of the body by virtue of its multidimensional actions. Orthopedic conditions being specifically caused by Vitiating of *Vata-Dosha* are primarily treated with *Basti*. Intestinal flora is one of the main functional units of colon and of *NiruhaBasti* nourishes this bacterial flora and maintains the bone health. Gut is the chief organ that is associated with absorption and excretion functions of the body. Removal of inflammatory mediators and toxic matters depends upon healthy gut. *Basti* causes colon cleansing that removes accumulated

wastes and unhealthy microbial flora and initiates better absorption and effective excretion which prevent accumulation of toxins which can be stated in Ayurvedic terms as *Ama* formation. *Basti* is helpful to reduce the excess of morbid matter, purifies every channel normalizes the function of *Vata*.

Sushruta clearly mentioned the effect of *sweda* in *sandhirogas* (*Sandhien Stabdanchestayedashuyukta*)^[21] and typically mentioned *Upanahasweda* in *Vatarogas*^[22]. *Upnaha Sweda* is *Vatashamaka* by virtue of its *Ushana*, *snigdha guna*. It combats with the properties of *Vata doshas* like *Sheeta*, *Ruksha*, *laghu*. The associated symptoms due to *prakopa* of *kaphadosha* are also reduced due to properties like *Ushana*, *Ruksha* and *tikshana* properties of *Swedadravaya*. Thus at the same time the symptoms caused by both *Vata* and *Kaphadoshas* are reduced by *Upnaha Sweda* and *Sheetata*, *Shoola*, *Stambha* etc. caused by these *doshas* are reduced.^[23]

Also In the symptoms of *SandhishothaBasti*, *Virechana*, *Agnikarma* and *Upanaha* have given best results. In symptoms like joint crepitation and pain, *Basti* and *Agnikarma* have given more percentage relief as compared to other therapeutic modalities. This can be explained on basis of fact that in initial phase of acute pain and inflammatory edema drugs having anti-inflammatory properties reduces inflammation and hence reduces pain. Also *Upanaha* is a type of *Sweda* which acts like a deep heating modality and gives anti inflammatory effect by clearing the inflammatory mediators from affected joint. *Agnikarma* itself is a modality that gives deep heating and simultaneously alters pain signal intensity. *Basti*, *Matrabasti* and *Kshirapaka* are modalities that gives nourishment to the joint and removes vitiating *Vata* there by impede the degenerative process. Even *Virechana* therapy cleans the obstruction in *Srotasa* ensuring best nutrition and drainage of Vitiating *Doshas* from joint.

MODERN REVIEW OF OSTEORTHRITIS:

Osteoarthritis (OA)

Osteoarthritis is an abnormality of synovial joints characterized by softening splitting and fragmentation (Fibrillation) of articular cartilage not attributable to direct contact with inflammatory tissue⁽²⁴⁾. This is usually accompanied by subchondral sclerosis and bone cysts, joints space narrowing and bony overgrowth at tissue joints margins. (osteophytes)

ETIOLOGY

- a) Age is a major risk factor.
- b) Race hip OA is less common in Chinese and Asians than in those of western origin, where as knee osteoarthritis is more common in afro-carribians.
- c) Genetic predisposition clinical evidence of inheritance of OA
 - Heberden' nodes are more common in sisters of affected women
 - 20% of individuals with osteoarthritis have a positive family history
 - First degree relative are at a twofold risk of generalized radiological osteoarthritis
 - There is greeter concordance in identical twins at several joint sites
 - Heritability of radiological knee and hand osteoarthritis is 40-65%
- d) Gender and hormonal factors- below 45 years, the disease in whom it usually involves one or two joints, above 55 years, it is more common in women, usually involving several joints
- e) Obesity- the relationship is stronger in women than men and is strongest at knee
- f) Other systemic factors- in women a significant association between hand disease and elevated serum cholesterol levels. Hypertension has been associated with generalized osteoarthritis in non-obese women. Trauma is associated with development of osteoarthritis.

PATHOGENESIS⁽²⁵⁾:

The earliest changes of OA may begin in cartilage. The two major components of cartilages are type 2

collagen, which provides tensile strength, and aggrecan, aproteoglycan. OA cartilage is characterized by gradual depletion of aggrecan, unfurling of the collagen matrix, and loss of type 2 collagen, which leads to increased vulnerability.

CLINICAL-MANIFESTATIONS:

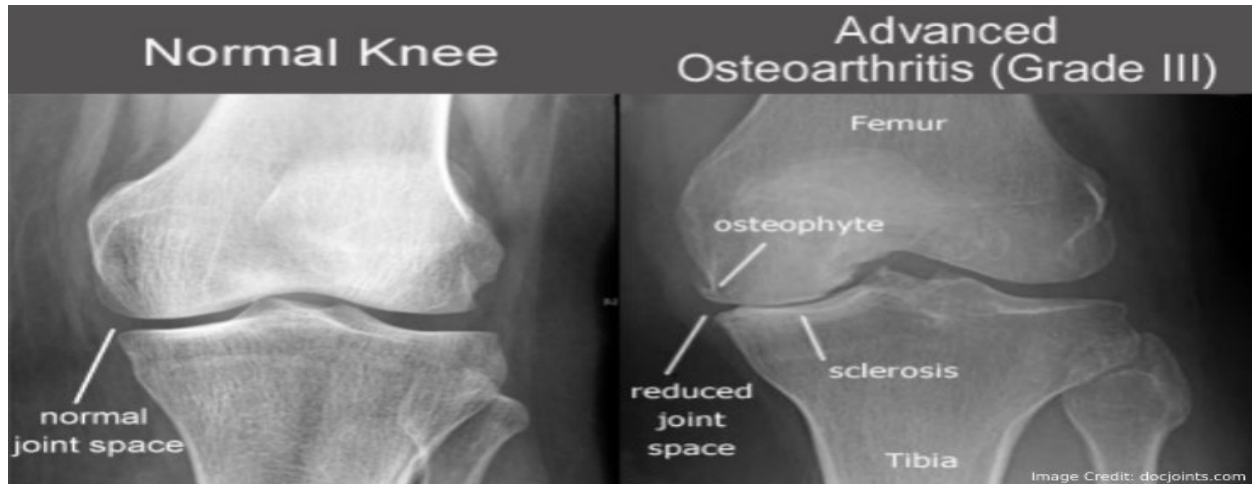
OA can affect almost any joint but usually occurs in weight-bearing and frequently used joints such as the knee, hip, spine, and hands. The hand joints that are typically affected are the distal interphalangeal (DIP), proximal interphalangeal (PIP), or first carpometacarpal (thumb base); metacarpophalangeal joint involvement is rare.

Symptom

- Use-related pain acting one or a few joints (rest and nocturnal pain less common)
- Stiffness after rest or in morning may occur but is usually brief (<30 min)
- Loss of joint movement or functional limitation
- Joint instability
- Joint deformity
- Joint crepitation (“crackling”)

1. Physical-Examination

- Chronic monarthritis or asymmetric oligo/polyarthritis
- Firm or “bony” swellings of the joint margins, e.g., Heberden’s nodes (hand DIP) or Bouchard’s nodes (hand PIP)
- Mild synovitis with a cool effusion can occur but is uncommon
- Crepittance—audible creaking or crackling of joint on passive or active movement
- Deformity, e.g., OA of knee may involve medial, lateral, or patella-femoral compartments resulting in varus or valgus deformities
- Restriction of movement, e.g., limitation of internal rotation of hip
- Objective neurologic abnormalities may be seen with spine involvement (may affect intervertebral disks, apophyseal joints, and paraspinal ligaments)



CONCLUSION

Sandhigatvata is well explained in Ayurvedic samhita. That ancient knowledge of Ayurveda will help in diagnosis and management *sandhigat vata* in present era very well. So, it is an attempt to highlight on details of *sandhigat vata and osteoarthritis*.

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