

SANDHIGATA VATA W.S.R. TO OSTEOARTHRITIS: A REVIEW**Dr. Sakshi*¹**

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ABSTRACT

The most common kind of articular condition is *Sandhigataavata*, which is one type of *Vata Vyadhi*. This disease is becoming more prevalent in today's modern period as a result of sitting occupations, air conditioning, a lack of a sufficient nutritious diet, travel, and old age, among other factors. The term '*Vatvyadhi*' has been used to designate all osteoarthritis conditions in *Ayurveda*. "*Vatpurnadrutisparsh: Shothsandhigateanile*" It is *Sandhigataavata*'s one-line unique identify. One of the most common disorders is osteoarthritis. According to contemporary research, the treatment for osteoarthritis is merely a pain reliever; it only alleviates the pain, not the underlying cause of the condition. Traditional life science *Ayurveda*, on the other hand,

provides the most effective cure for this.

KEYWORDS: *Sandhigataavata*, osteoporosis, treatment.

INTRODUCTION

Sandhigata-Vata is one of the most prevalent *Vatavyadhi* that might be associated with osteoarthritis. The prevalence rate of osteoarthritis is total 14.8 percent, with knee osteoarthritis prevalence rate being 10.8 percent, which is higher than the other.^[1] As indicated in the *Charak Samhita*, this vat becomes vitiated owing to a variety of circumstances. According to *Acharya Charaka*, "*Sandhi gataanila*"^[2] signifies that *Vata* becomes trapped in the *Sandhi*, resulting in *Sandhigataavata*. In *Nidan Sandhigata Vata* is describes as a *Hantisandhigat: Sandhinshoolatopokarotih* which means this disease damaged joints having symptoms like pain sensation, crepitation at joints.^[3] In other books *Akunchana prasaranvedana*^[4] *Shotha, Atopa, Hantasandhi*' etc. symptom's are given. It is typically encountered in the elderly, and it interferes with daily activities such as walking, sitting,

bathing, and gait. Finding the source of the problem and treating it, i.e. *Nidanparivarjana* and *Vatnashak* therapy, is crucial. As a result, a detailed investigation of this condition is required.

INCIDENCE^[5]

In the Framingham research, the age-standardized prevalence of radiographic knee OA in those over 45 was 19.2%, while in the Jhonston County osteoarthritis project, it was 27.8%. Approximately 37% of people aged >60 years or older had radiographic knee OA in the third national health and nutrition evaluation survey. Radiographic hand OA had a 27.2% age-standardized prevalence. Radiographic hip OA was less prevalent than radiographic hand or knee OA. In Framingham subjects aged >26 years, the age prevalence of symptomatic hand and knee OA is 6.8% and 4.9%, respectively.

Definition of *Sandhigatvata*

1. According to *Acharya Charaka Sandhigatvata*, the *Vatvyadhi* is characterised by symptoms such as *Sandhi shool* (joint pain), *Atop* (crepitation), *Vat Purnadrutispersh*, *Shoth* (swelling), and others.
2. According to *Acharya Shushrut*, it is associated with symptoms of *Hantisandhigat* (joint degeneration), *Shopha* (swelling) and *Shool* (pain) at the joints.^[6]
3. *Acharya Madhav* and *Vagbhat* have essentially identical definitions to *Acharya Charaka* and *Shushruta Samhita*.

Nidan Panchaka of Vatvyadhi

NIDANA

Hetu of the sickness *Sandhigat Vata* has no particular description. The *Hetu* of the *Vatvyadhi* are to be acknowledged as the *Hetu* of the *Vatvyadhi* since it is one of the *Vatvyadhi*.

General *Hetu* of *Vatvyadhi*^[7]

1. Aaharaja Hetu
2. Viharaja Hetu

Aaharaja-Hetu

According to *Acharya Charaka*, *Ruksha* (dry), *Sheet* (cold), *Alpa* (in little quantities), *Laghu* (light diet), *Agnimandya*, *tikta*, *Katu*, *Kashay Rasatmaka Aahara* (diet) is accountable for the production of *Vatvyadhi*.

Viharaja-Hetu

In the manufacturing of *Sandhigatvata*, *Viharaja-Hetu* is also crucial. *Vihara Hetus* includes *Laghan* (hunger), *Ativyayam* (excessive exercise), *Atimaithuna* (excessive sexual activity), *Mal Mutra Rasadi Dhatukshaya*, *Plawan* (swimming), *Diwaswap* (daydreaming), *Ratrijagra* (insomnia), *Datukshya*, *Aaghat* (accidental fall) *Vegadharana*.

Samprapti (Pathogenesis)^[8]

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

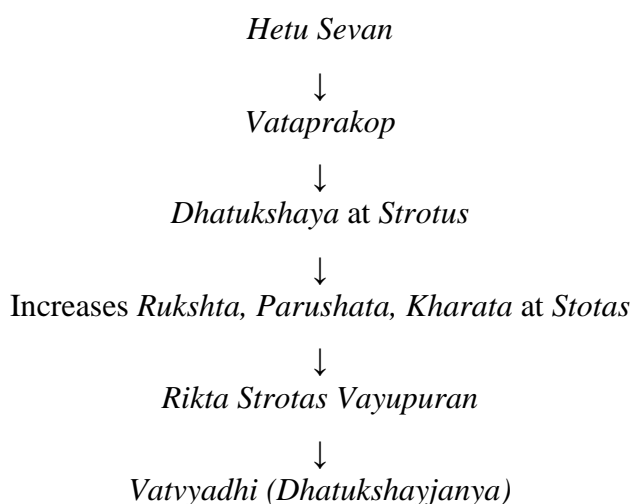


Table 1: Showing Samprapti-Ghatakas of Sandhigatvata.

<i>Samprapti Ghatakas of Sandhigatavata</i>	
<i>Doshas</i>	<i>Vat-Pradhana</i> : In <i>Kshayajanya-Sandhigatvata</i> <i>Vat-kaphpradhan</i> : In <i>Upstambhit-Sandhigatvata</i> According to <i>Sushruta</i> .
<i>Dushya</i>	– <i>Rasa</i> , <i>Raktamansa</i> , <i>Sira</i> , <i>Asthi</i> ,
<i>Agni</i>	– <i>Jatharagni</i> & <i>Dhatwagni-Mandya</i>
<i>Srotas</i>	– <i>Asthivaha strotas</i>
<i>Srotodusti Prakara</i>	– <i>Sanga</i> & <i>Vimargagamana</i>
<i>Udbhava sthana</i>	– <i>Pakwashay</i>
<i>Adhisthana</i>	– <i>Sandhi</i>
<i>Vyadhimarga</i>	– <i>Bahya marg</i>

Purvarupa^[9]

The *Purvarupa* of *Sandhigatavata*, '*Avyaktanam Lakshana*' of *Vatvyadhi*, has no traditional description.

Rupa^[10]

According to many *Ayurvedic* texts, *Rupa* of *Vatvyadhi* encompasses the following areas:

1. *Bhedoparvasti Sandhi Shool* (joint pain)

2. Vatpurnadrutisparsh
3. Shoth (swelling)
4. Prasarna-Kunchnayo Pravruttsich Svedana (pain during moment)
5. Atop (cripitation)
6. Hantisandhigat (degenerative changes at joints)
7. Mans-Balkshyam
8. Astishosh (osteoporosis)

***Sadhya Asadhyata*^[11]**

If *Sandhigata Vat* appears suddenly, with good immunity and no complications, it is *Sadhya*. Otherwise, *Krichha Sadhya* will be used. Furthermore, if the *Vat Dosha* is dominant and patients suffer *Vatvyadhi* complications, it is *Yapya*.

Differential-diagnosis

The constituents of *Sandhishool* found in *Sandhigatavata* have also been linked to the following diseases:

Aamvata-along this *Jwaranubhuti* also

Majjagata Vata- *Visha*'s third *Vega*

RaktavritaVata– *SamaSannipataja Jvara*

Pathya – Apathya

Pathya Aahar and *Vihar*^[12]

Sarpi, *Tail*, *Vasa*, *Majjaseven*, *Snigdha*, *Sek*, *Guruaahar*, *Abhyang* (massage), *Basti* (enema), *Payas*, *Madhur*, *Aamla*, and *Lawanrasatmaka Aahar* Seven.

Apathya: *Katu*, *Tikta*, *Laghu*, *Ativyayam*, *Atichinta*, etc.

Chikitsa of Sandhigatvata

Yogratnakar may cite the *Chikitsa sutra* of *Sandhigatavata*, in which *Sandhigatavata* is treated with *Agnikarma*, *Snehan*, and *Swedan*.

As noted by *Acharya Charak*, "*Bahyabhyantar: Sneheastimajjagatjayet*" signifies that *Bahyasnehan* (oil external massage) and *Abhyantarsnehan* can be used to cure certain disorders (taking of *Ghee*, oil by orally).^[13]

Because *Sandhigatvata* is a *Madhyamamarga gat Vatika* disease, *Vata* becomes stuck in *Sandhi*.^[14] As a result, medications that work on both the *Vata Dushti* and the *Asthi Ahatu*

should be used to treat *Sandhigatavata*. In light of this, *Basti* medicated with *Tiktadravya*, *Ghrta*, and *Kshira* is especially advised for *Asthivaha Srotodusti* therapy.

Guggulu is mostly utilised in *Vatavyadhi*. The chemical ingredients of *Guggulu* and its *Rasa*^[15], *Guna*^[16], *Virya*, and *Vipaka*, which play a key role in conquering diseases, are the cause for this. *Guggulu's* *Madhura*, *Katu*, *Tikta*, *Kashaya Rasa*, and *Picchila*, *Snigdha Gunas* eliminate the *Dhatukshaya* component. In the instance of disorder produced by *Margavarodhjanya*, it is also beneficial by reducing the blockage in *Srotas* caused by *Lekhana* property. Several preclinical and clinical investigations have suggested that *Guggulsterone* (guggul) and boswellic acid (*Salakiguggul*) may be useful in the treatment of arthritis.^[17] As *Ushna* in *Virya*, *Parijata* is highly *Vatashamaka*. Its natural properties include *Anulomana*, *Deepana*, *Kaphaghna*, and *Vatashamaka*, which function as analgesic and anti-inflammatory.

SandhigataVata is made up of vitiated *Vata Dosha* and *Kapha anubandha*. As a result, *Agnikarma* is seen to be the most effective treatment for balancing these *Doshas*. It reduces *Srotavrodha*, pacifies vitiated *Vata* and *Kapha Dosha*, and increases *Rasa Rakta Vahan* due to *Ushana*, *Tikshana*, *Sukshma*, and *Ashukariguna* (Blood circulation). Patients experience symptom alleviation as a result of increased blood circulation, which likely flushes out the pain-producing chemical.^[18] We also transfer therapeutic heat to the *Twakdhātu* (skin) and progressively to deeper structures in *Agnikarma*, which helps to relieve pain and other ailments.^[18] Heat causes more blood to flow into the region when it is applied to the skin. When blood flow rises in a certain location, oxygen and nutrients are delivered, which can aid in the healing process. Heat relaxes muscles, which can assist to relieve some forms of pain. The sense of heat on the skin also has an analgesic impact, which means it affects the perception of pain so the patient doesn't feel as bad.^[20] Due to their *Ushnavirya*, *Guduchi*, *Pippalimoola*, *Shunthi*, and *Guggulu* operate as *Vatashamaka*.

Virechaka medicines have *Ushna*, *Tikshna*, *Sukshma*, *Vyavayi*, and *Vikasi* properties; they enter *Hridaya* through its *Virya* and then pervade the entire body through big and little *Srotas*, following the *Dhamani*. The *Panchabhautika* combination of *Virechaka* medicines, *Prithvi* and *Jala*, aids in the elimination of morbid humour from *Shakha* to *Kostha* and subsequently out of the body due to their characteristics. Second, *Virechana* medicines can be classified as either secretory or osmotic in their effect. When the gut is working hard, blood supply rises, and plasma is pushed into the intestine. Extracellular fluid serves as a conduit

for the interchange of plasma and interstitial fluid, which fills the gaps between cells. When this extracellular fluid reaches the plasma part, it circulates throughout the body and contains a variety of hazardous compounds, which when passed via the colon may provide a pathway for toxic materials to be eliminated, therefore alleviating symptoms such as pain and inflammation.

Basti is a significant therapy for *Vatavyadhi* disorders.^[21] Because of its multifaceted activities, *Sneha Basti* or *Brimhana* type *Basti* affects several physiological systems. *Basti* is mostly utilised to cure orthopaedic issues that are induced by *Vata-Dosha* Vitiating. The intestinal flora is one of the colon's key functioning units, and *Niruha Basti* feeds this bacterial flora while also maintaining bone health. The gut is the primary organ responsible for the body's absorption and excretion processes. A healthy gut is necessary for the removal of inflammatory mediators and harmful substances. *Basti* promotes colon cleaning by removing accumulated wastes and unfavourable microbial flora, as well as improved absorption and excretion, which prevents the buildup of toxins known as *Ama* formation in *Ayurvedic* language. *Basti* aids in the reduction of morbid materials, the purification of all channels, and the normalisation of *Vata* function.

Sushruta discussed *sweda's* influence in *Sandhirogas* (*Sandhien Stabdhamchestayedashuyukta*)^[22] and *Upanaha sweda* in *Vata rogas* often. Because of its *Ushana*, *Snigdha Guna*, *Upnaha Sweda* is *Vata shamaka*. *Sheeta*, *Ruksha*, and *Laghu* are *Vata dosha* qualities that it combats.^[23] *Sweda dravaya's* qualities like *Ushana*, *Ruksha*, and *tikshana* alleviate the symptoms of *prakopa* of *kaphadosha*. As a result, *Upnaha Sweda* reduces the symptoms caused by both *Vata* and *Kapha doshas*, as well as *Sheetata*, *Shoola*, *Stambha*, and other symptoms induced by these *doshas*.^[24]

Also *Virechana*, *Agnikarma*, and *Upanaha* have offered the finest outcomes in the symptoms of *Sandhishotha Basti*. When it comes to symptoms like joint crepitation and discomfort, *Basti* and *Agnikarma* have shown to be more effective than other treatment approaches. This can be explained by the fact that medications with anti-inflammatory characteristics diminish inflammation and hence discomfort in the early stages of acute pain and inflammatory edema. *Upanaha* is a form of *Sweda* that works as a deep heating method to reduce inflammation by removing inflammatory mediators from the afflicted joint. *Agnikarma* is a method that causes profound warmth while also altering the strength of pain signals. *Basti*, *Matrabasti*, and *Kshirapaka* are modalities that nourish the joint while also removing vitiated *Vata*, slowing

down the degenerative process. *Virechana* treatment also clears the blockage in *Srotasa*, allowing for optimal feeding and evacuation of Vitiated *Doshas* from the joints.

OSTEORTHRITIS IN THE MODERN WORLD

Osteoarthritis (OA)

Osteoarthritis is a synovial joint condition characterised by articular cartilage weakening, splitting, and fragmentation (Fibrillation) that is not caused by direct contact with inflammatory tissue.^[25] This is generally accompanied by subchondral sclerosis and bone cysts, as well as joint space constriction and bony overgrowth at the tissue joint borders. (osteophytes)

ETIOLOGY

- a. Age is a significant risk factor.
- b. Hip osteoarthritis is less prevalent among Chinese and Asians than in people of Western heritage, although afrocaribbians have a higher prevalence of knee osteoarthritis.
- c. Clinical evidence of OA inheritance based on genetic susceptibility
 - Heberden's nodes are more prevalent among afflicted women's sisters.
 - A good family history is seen in 20% of people with osteoarthritis.
 - Generalized radiological osteoarthritis is twice as common in first-degree relatives.
 - At some shared locations, identical twins have high concordance.
- d. Gender and hormonal factors—the condition is more frequent in males under 45 years old and generally affects one or two joints; it is more common in women over 55 years old and usually affects numerous joints.
- e. Obesity has a greater link with women than with males, and it is strongest at the knees.

PATHOGENESIS^[26]

The first signs of OA may appear in cartilage. Type 2 collagen, which gives tensile strength, and aggrecan, an aproteoglycan, are the two main components of cartilages. The steady depletion of aggrecan, unfurling of the collagen matrix, and loss of type 2 collagen define OA cartilage, resulting in increasing fragility.

CLINICAL-MANIFESTATIONS

OA can affect any joint, however it most commonly affects weight-bearing and regularly used joints such the knee, hip, spine, and hands. The distal interphalangeal (DIP), proximal

interphalangeal (PIP), or first carpometacarpal (thumb base) joints are the most often afflicted; metacarpophalangeal joint involvement is uncommon.

Symptom

- Use-related pain that affects one or more joints (rest and nocturnal pain are less frequent)
- Stiffness may occur after rest or in the morning, although it is typically temporary (30 minutes).
- Joint movement loss or functional impairment
- Instability of joints
- Deformity of the joints
- Joint crepitation (also known as "crackling")

Physical-Examination^[26]

- Restricted movement due to apslar thickening, or blocking by osteophyte.
- Palpable, sometimes audible, coarse crepitus due to rough articular surfaces
- Bony swelling (osteophyte) around joint margins
- Deformity, usually without instability
- Joint line or periarticular tenderness
- Muscle weakness
- No or only mild synovitis

CONCLUSION

The *Ayurvedic Samhita* explains *Sandhigatvata* in detail. That old *Ayurvedic* wisdom would be extremely useful in diagnosing and managing *Sandhigat Vata* in the modern day. As a result, it is an attempt to draw attention to the specifics of *Sandhigat Vata* and osteoarthritis.

REFERENCES

1. www.ncbi.nlm.nih.gov
2. Dr. Brahmanada Tripathi, Charak Samhita of Maharshicharak, Chukhambhaprakashan, Varanasi, 2011, Chikitsastan, chapter 28, verse no.37, page no.942.
3. Madhavnidan by Dr. Ajay kumar an Android book, chapter no.22 verse no.21.
4. Dr. Brahmanada Tripathi, Charak Samhita of Maharshicharak, Chukhambhaprakashan, Varanasi, 2011, Chikitsastan, chapter 28, verse no.37, page no.942.

5. Epidemiology of osteoarthritis (Yuqingzhang, D. Sc and Joanne MJordan, MD, MPH) Clin Geriatr Med. 2010 August; 26(3):355- 369.doi10.1016/j.cger.2010.03.001.
6. Sushrutasamhita by Dr. Anant ram Sharma foreword by Acharya priyavat Sharma chaukhamasurbhartiprakashan, Nidan-Sthana, chapter no.1 verse no.28 page no.460.
7. Dr. Brahmanada Tripathi, Charak Samhita of Maharshicharak, Chukhambhaprakashan, Varanasi, 2011, Chikitsastan, chapter 28, verse no.15-18, page no.937.
8. Astang- Hrudayam by kavirajatrivedgupt, Nidan-stan chapter no.15verse no.5-6 page no.375.
9. Dr. Brahmanada Tripathi, Charak Samhita of Maharshicharak, Chukhambhaprakashan, Varanasi, 2011, Chikitsastan, chapter 28, verse no.19, page no.938.
10. DISEASES IN AYURVEDA- An android book by Vd. Arun S. Dudmal (M.D) An android book chapter no 29,30.
11. Dr. Brahmanada Tripathi, Charak Samhita of Maharshicharak, Chukhambhaprakashan, Varanasi, 2011, Chikitsastan, chapter 28, verse no.74, page no.951.
12. Dr. Brahmanada Tripathi, Charak Samhita of Maharshicharak, Chukhambhaprakashan, Varanasi, 2011, Chikitsastan, chapter 28, verse no.104, page no.958.
13. Dr. Brahmanada Tripathi, Charak Samhita of Maharshicharak, Chukhambhaprakashan, Varanasi, 2011, Chikitsastan, chapter 28, verse no.93, page no.955.
14. Dr. Brahmanada Tripathi, Charak Samhita of Maharshicharak, Chukhambhaprakashan, Varanasi, 2010, Sutrasastan, chapter 11, verse no.48, page no.246.
15. Ashtanga Sangraha Samhita, Ut;49/164175.
16. Bhava Prakash Nighantu, KarpuradiVarga/32-45.
17. Khanna D, Sethi G, Ahn KS, Pandey MK, Kunnumakkara AB, Sung B, Aggarwal A, Aggarwal B B. Division of Immunology, Department of Medicine, University of Cincinnati, Cincinnati, OH, USA.
18. Sehgal U, Rajgopal M, Dwivedi R R. Role of agnikarma and ajamodadivati in the management of Sandhigataavataw.s.r cervical spondylosis. Ayu., 2009; 30: 345-9.
19. Vyasdeva Mahanta, Tukaram S. Dudhamal, Sanjay Kumar Gupta. Management of tennis elbow by Agnikarma. J Ayurveda integr Med., 2013; 4: 45-7.
20. McCarberg, Bill and O'Connor, Annie. A New Look at Heat Treatment for Pain Disorders Part 1.American Pain Society Bulletin, 2004; 14: 6.
21. Astang-Hrudayam by kavirajatrivedgupt, sutrastan chapter no.19 verse no.1 page no.162.
22. Sushrutasamhita by Dr. Anant ram Sharma foreword by Acharya priyavat Sharma chaukhamasurbhartiprakashan, Chikitsa Sthana, chapter no. 32 verse no.20 page no.420.

23. Sushrutasamhita by Dr. Anant ram Sharma foreword by Acharya priyavat Sharma chaukhamasurbhartiprakashan, Chikitsa Sthana, chapter no. 32 verse no.12 page no.418.
24. Dr. Brahmanada Tripathi, Charak Samhita of Maharshicharak, Chukhambhaprakashan, Varanasi, 2010, Sutrasastan, chapter 14, verse no.13, page no.288.
25. Golawalla's MEDICINE FOR STUDENTS 22nd edition : 2008,Rumatology chapter page no.1047.
26. Dennis L. Kasper et al. 19th edition Harrison's manual of medicine chapter 163 osteoarthritis page no. 861.
27. Davidson's Principles & Practice of Medicine 21st edition: 2010, chapter no. 25 page no. 1085.