THE PART OF THE PA

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

Review Article
ISSN 2394-3211
EJPMR

REVIEW OF ETIOPATHOGENESIS AND DIAGNOSTIC APPROCH OF SANDHIGATAVATA W.S.R TO OSTEOARTHRITIS

*1Dr. Pandey Deepti, 2Dr. Shailendra Kumar Singh and 3Dr. Avadhesh Kumar

¹M. D. Roga Nidan Evam Vikriti Vigyana. ²Assistant Professor, Roga Nidan Evam Vikriti Vigyana M.D. (Ayu)Kayachikitsa, PhD, M.B.A (Health Care & Hospital. Add) P.G.D.N.Y.S

³Associate Professor Roga Nidan evam Vikriti Vigyana.

*Corresponding Author: Dr. Pandey Deepti

M. D. Roga Nidan Evam Vikriti Vigyana.

Article Received on 27/12/2020

Article Revised on 17/01/2021

Article Accepted on 07/02/2021

ABSTRACT

According to ayurveda, Sandhigatavata is described under vatavyadhi in all samhita & sangraha grantha. The prakopa of vata may be due to two causes (a) Avaran (b) Dhathu kshaya. Avaran is one of the most important factor which is responsible for the superiorty of vata. In vriddhavastha all dhatus undergo kshaya, thus leading to vata prakopa making Sandhigatavata. According to ayurvedic literature, there are no specific etiological factors for sandhigatavata. However, the aggregative factor for vata can be adopted for it. This may be apathya aahar vihar, chinta, krodha, shoka, bhaya, abhighat etc. If prakopit vata comes at particular space (like asthi, sandhi) which may be weak point or kha vagunya, where sthan – samshray occurs & it continues with dosh dushya sammurchana. The entire above phenomenon forms, the etiopathogenesis of sandhigatavata. Thus, involvement of marma, madhyama roga marga, vata dosha & dhatukshaya make disease krachasadhya. From the modern point of view, the disease Osteoarthritis is identical to sandhigatavata. Here in this paper I am trying to describe the diagnostical approach of sandhigatavata (oestioarthritis) because diagnosis is an important parameter for the proper management & also to define the prognosis of any disease. For fulfilling the criteria three important factor are responsible.

- 1) Clinically assessments factors.
- 2) Pathologically assessment foctors.
- 3) Differential diagnosis

Above both are the key point to rule out, actual diagnosis of any disease.

KEYWORDS: Sandhigatavata, Osteoarthritis.

INTRODUCTION

According to Ayurveda, simple freedom from disease is not only health for a person to be healthy, he should be mentally and spiritually happy and imbalance of doshika equilibrium is termed as roga. Vata also control the mind, senses & perception. When this vata gets disturbed it drives the body crazy. It disturbs all events in our body and causes many sorts of damages and diseases.

Among tridosha vata is responsible for all cheshta and all diseases. Vata is one among the three Doshas. It is a prime driving force behind all the body activities. The pitta and kapha, dhatus(tissues) and malas(excreta) are also all dependent on vata. So vata is a very important factor in our body, its importance is described by this shlok:

There are many diseases which occur due to the vitiation of vata, those group of disease are considered under the heading vatavyadhi. In other words vatavyadhi is a set of disease caused by vitiated vata:

'forokrtfurks-lk/kkj.kO;kf/kokZrO;kf/kfjfr' (e|qd'"k O;k[;k-22) In vriddhavastha all dhatu undergo kshaya, thus leading to vata prakupa and making individual prone to many disease. Among them Sandhigatavata stands top in the list

Sandhis are a type of Marma and form a part of Madhyama Roga Marga, the affiliation of sandhis by prakupita vata and the vitiation of vata occurs due to

www.ejpmr.com Vol 8, Issue 3, 2021. ISO 9001:2015 Certified Journal 181

improper life style, dincharya, ratricharya and ritucharya etc

According to Ayurvedic literature, there are no specific etiological factors for Sandhigatavata. However, the aggregative factors for vata can be adopted for it. This may be apathya aahar vihar, chinta, krodha, shoka, bhaya, abhighat etc. If prakupit vata comes at particular space (like asthi, sandhi) which may be weak point or kha vagunya, where sthan- samshray occurs and it continues with dosh dushya sammurchana. The above entire phenomenon forms the samprapti Sandhigatavata. Thus, involvement of marma.

madhyama roga marga, vata dosha and dhatukshaya make disease Krachayasadhaya.

The word Sandhigatavata is comprised of two word's sandhi and vata. Sandhi is an anatomical part and vata is a physiological aspect in the body. There is no clear cut definition for Sandhigata vata, but however the classical text of Ayurveda, the Charak Samhita reveals that after Nidan sevana aggrevated vata, enters in sandhi and get established there by producing swelling of joint, which is felt like a bag filled with air the pain occurs mainly during the flexion & extension when the joint move.

Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Ш	Щ	ШШ	1		
														П	П] [Ф	(p. 1	fp	28/	37)

'Osteo' means Bone, 'Arth' means Joint and 'Itis' means Inflammation. Osteoarthritis is the most common type of arthritis. It is a common degenerative disease of the joints. Improper sitting posture, jerk movement, sport, activities & bad sleep activity are the chief factors to produce disorder of weight bearing joint.

It affects approximate 10% of all adults (men and women) and the prevalence increases with the age. The disease is characterized by focal areas of destruction of articular cartilage, sclerosis of bone & hypertrophy of the soft tissues. Osteoarthritis most commonly affects the weight bearing joints in particularly knee joint, hip and spine & interphalangeal joints of hands. The wrist, shoulder and ankle are less often involved.

The prevalence of osteoarthritis is 40% in individual aged over 75 year. It is more common in women than men. There is a strong relationship with obesity.

Globally approximately 250 million people have osteoarthritis of knee (3.6% of the population) and hip osteoarthritis affects (above 0.85% of population). In incident of OA in India is as high as 12%. It is estimated that approximately 4 out of 100 people are affected by it. OA is the most common articular disease. Almost all persons by the age of 40 having some pathological changes in weight bearing joint have symptomatic OA. Among all sandhis, janu sandhigatavata(knee joint) is leading cause of disability, which makes the person unable to walk, independently. Number of patients suffering from janu sandhigatavata is more than other.

LITRARY REVIEW OF SANDHIGATAVATA

AYURVEDIC REVIEW: Acharya Charak was firstly described the disease separately named SANDHIGATA ANILA but has not included under 80 type nanatmaja vyadhi. Acharya sushrute, has described the disease sandhigatavata under vatavyadhi chapter. He has given its symptoms & the line treatment. He added new symptoms HANTI SANDHI in the symptoms. Acharaya Vagabhat has said vatavyadhi as 'MAHAROGA'. This shows that the Acharya has given importance to vata as it

dominate in the function & remaining two dosha function are depends on vata.

Nirukti & Paribhasa: The word Sandhi-Gata vata is composed of 3 word i.e Sandhi+Gata+Vata.

SANDHI

vyutpatti- *Sam+Dha+Kihi* (shabda kalpa druma). Nirukti- Sandhirnamsa Samyogaha (sabda kalpa druma). Paribhasa- Sandhi pulling Sandhinamiti, Yuga sandhini yugashabde Deha sandhini Marmashabde cha Drishtavyaha (sabda kalpa drum).

GATA

vyutpatti- Gam – Gamane (sabda kalpa druma)[the term Gata & Gati are derived from the Sanskrit.]

Nirukti -Gamane, Vahane, Margah, Sthane, Prapti, Labdhe, Patite, Sameepe, Abhyupaya.

Paribhasa -Gatum streelingam, Gacchati, Janati Yatteti (sabdha kalpa druma).

VATA

vyutpatti- Va-Gati Gandhanayoho.

Va-Gati Sevanayoho

Va+Kta (sabdha kapla drum).

Nirukti – Sparsha Matra Vishesh Gunake Bhutabheda Pavane- Dehasya Dhatubheda cha(shabda sthoma mahanidhi).

NIDAN PANCHAKA

Nidan

There is no specific etiological factor but Rookshahara, sheethahara, laghuahara, athivyayuma, prajakara, langhan, dhatukshaya, Gaja, ashwa, sheegreyana, avasthamsanath, chinta, shoka, bhaya, rogathikarshanath etc causes vitiation of vata which is responsible for sandhigatavata.

Poorvaroopa

Particular mentioning of poorvaroopa of sandhigatavata is not available in classis. In vatavyadhi also unmanifested symptoms or mild exhibition of actual feature of the disease itself (alpa vyakta) is considered as its poorvaroopa. Hence clinical feature of sandhigatavata in milder form can be considered as poorvaroopa.

Roopa: Sandhi shotha, sandhi vedana



i.e producing swelling of joint, which is felt like a bag filled with air the pain occurs mainly during the flexion & extension when the joint move.

Upsaya & Anupashaya

Sandhigatavata being a vatavyadhi, the general upashaya and anupashaya of vatavyadhi,

Upashaya: following Ahara-Vihara and Karma are upashaya for Sandhigatavata.

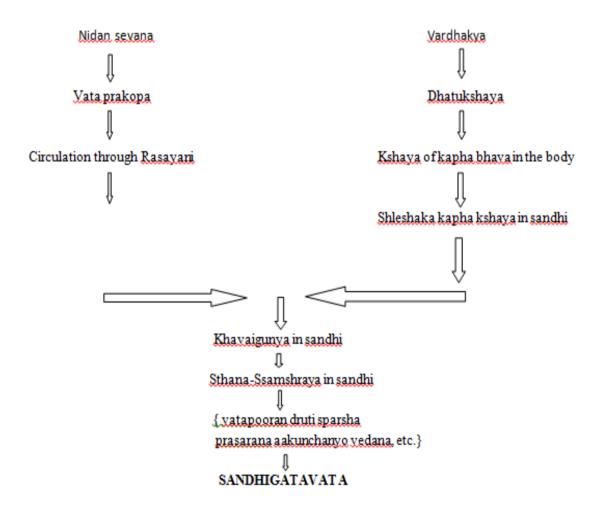
1. Ahara: Madhur, amla, lavana ras; Ushna veerya;Guru, Snigdha gunas; Ghrita, taa, Vasa, majja, Balya- ahara i.e, Godhum, Masha, Purana shali, Rasona etc.

- **2. Vihara:** Atapa sevana, Nirvata sthana, Ushnaprayarana etc
- Karma: Abhyanga, Swedana, Parisheka, Sneha, Sweda etc.

Anupashaya: following Ahara-Vihara and Karma are Anupashaya for Sandhigatavata.

- Ahara: Kashaya, Katu, Tiktha rasa in Atimatra; Mudga, Chanaka, Kalaya, etc.
- **2. Vihara:** Vegavidharana, Anashana, Chinta, Shoka, Ativyayama etc.
- 3. Karma: Ruksha udvartana, Ruksha swedana etc.

Samprapti: The samanya samprapti of vatavyadhi that is explained in classics can be considerd as the Samprapti of Sandhigatavata.



• Saadya- Asaadyatha: krachasadhaya vyadhi

• Chiktsasutra:

dq;kZRlfU|xr¢ okr¢ nkg Lusgksiukgue ~||(".ç. e/;e [k.M 24/259)

MODERN REVIEW: Osteoarthritis is a degenerative disease involving articular cartilage of diasthrodial joints. It is usually secondary following predisposing cause & primary (rare) in the absence of such a predisposing cause.

Etiology-

- a) Excessive load in normal cartilage.
- b) Normal load in damaged cartilage.
- c) Injury, bad life style.
- d) Congenital causes, metabolic disorders

Defination- Osteoarthritis is a degenerative, non inflammatory joint disorder characterised by destriction of articular cartilage & formation of new bone (bone spru) at the joint surface &bone margins.

Type- they are two type (1) primary O.A (2) secondary O.A.

Sign & symptoms-

- Primary O.A occurs after 50 year age & more common in obese female.
- 2. Very slowly increasing to a constant pain relieved with exercise & may be severe at rest or sleep.
- 3. Stiffness appears slowly & steadily followed by deformity.
- 4. Limp due to pain, stiffness & deformity may appear, locking due to loose bodies may be present.
- Marked synovial thickening & muscle spasm are absent, local warmth, tenderness are minimal & joint crepitus.

Pathogenesis:

Due to any causes (obesity, trauma, inflammatory etc)

Softening, Fraying fibrillation of joints due to loss of synovial fluid

Progressive focal degeneration of joint

Subarticular cyst formation

Sclerosis of the surrounding bone (thickening of subchondral bone)

Osteophyte formation

Capsular fibrosis

Joint deformity

(OSTEOARTHRITIS)

Complication- Major Complications of O.A is pain the degree of pain can vary greatly from a mild inconvenience to being debilitating.

Investigations: X-ray of affected joint, R.A Factor, Sesum uric acid, ASO Titer.

Treatment: There is no specific treatment. Hot bath, Hot vapours, Ice product anaesthesis.

- Various analgesics like Aspiein, Paracetamol, Ibuprofen, Cefecoxib etc. may be used.
- ➤ Physiotherapy is of help to keep joint moving and built up muscular strength.
- Weight loss by reducing diet is of extreme help.
- Operative (Surgical) Treatment.

METERIAL AND METHOD

Sandhigata vata is a major social problem as large percent of population suffers from this affliction. This being a degenerative type of disease, its progress is more in geriatric age, posing difficulty in day-to-day life of the person. This is the age in which all Dhatu begin to degenerate, ultimately leading to Vata Prakopa. When this prakupita Vata gets lodged in sandhi, it gives rise to the disease Sandhigata Vata. In this part, literary review about Sandhigatavata will be collected from classical text

of Ayurveda thesis of previous research work, scientific journal, periodic magazines, monographs & other available source. Similarly modern review of the disease Sandhigatavata will be collected from modern medicine books & various websites on internet.

AIMS & OBJECTIVES

- To evaluate the clinical sign & symptoms according to ayurveda as well as Modern medical science.
- To make out sapekshaa nidana.
- > To evaluate the laboratory test.

OBSERVATION & RESULTS

A) sign & symptoms- According to ayurveda

- > vatapooran druti sparsha
- prasarana aakunchanyo vedana.
- > Atopa
- shoth
- > Stabdata
- Hanti sandhi

According to modern science sign & symptoms-

- Joints pain
- > Stiffiness
- Crepitus
- Swelling

www.ejpmr.com Vol 8, Issue 3, 2021. ISO 9001:2015 Certified Journal 184

- Local warmthness
- Muscle atrophy.

B) Sapeksha Nidana

C) Laboratory & Radiological finding

DISCUSION

In sandhigatavata etiological factors are aharaja, viharaj, manasa, & other vata prakopaka nidana which are mentioned in vatavyadhi. In Sandhigatavata pathology starts with vyan vayu which is aggrevated by nidan sevan. The kha-vagunya of sandhi leads to sthanasanshraya. During the process of pathogenesis kaphavrita vyan vayu obstructs the circulation of Rasa & Rakta Dhatu & gradual structural changes are seen in weight bearing joints.

The symptoms like shool, shopha & stambha etc.

Osteoarthritis are similar as of sandhigatavata is joint pain, swelling, stiffness, disability & crepitation over joints. It is a degenerative type of arthritis which mainly occurs in old age.

- In sandhigatavata, prakupita vata gets enlodged in sandhi where srotoriktata already exists. So there is wide scope of vata to get accumulated these resulting sotha. Acharya Charak has quoted that vatapurana druti sparsha type of shotha is seen in Sandhigatavata.
- Shoola is the chife symptom of prakupita vata. It is stated that without vata shula does not occur. It is obvious to experience shula in the diseases which are dominated by vata.

- Atopa is the sound produced by the movement of joints i.e creptus.
- Sandhis are made to perform the function of Akunchana Prasarana. When prakupita vata gets located in sandhi which disturbed the normal function of sandhi which results in vedana during Akunchana & Prasarana.
- > Stabdhata is seen in early stage. When the disease aggravates the vitiated vata may produce in ability of movement.
- ➤ Hanti sandhi means distruction of the joint.
- ➤ The pain of O.A is aggravated by joint use & relieved by rest, but as the disease progressive, it may become persistent.
- ➤ Progressive stiffness of the involved joint upon arising in the morning or after a period of inactivity may be prominent but usually lasts less than 20 minutes; it is due to spasm of muscles.
- ➤ Physical examination of the O.A joint reveals located soft tissue swelling of mild degree. It is due to the changes in articular ends themselves particularly peri- articular lipping.
- The senation of bone rubbing against bone evoked by joint movement is called as crepitus. It is one of the characteristic sign of O.A joint. It occurs due to rubbing of bone to bone.
- On palpation of the joint locale rise in temperature (local warmthness) is an indicative of sign of inflammation.
- Peri- articular muscles atropy may be due to disuse or due to reflex inhibition of muscles contraction.

Sapeksha Nidana

S.No.	Rheumatoid Arthritis	Gout	Osteoarthritis
1	Inflammatory disease	Metabolic disorder	Degenerative disease
2	Proliferation of synovial	Impaired purine	Degeneration of articular
	membrane	metabolism	cartilage
3	Atleast 3 joints are involved	Monoarticular	Weight bearing joints
4	Morning stiffness 1 hours	Morning stiffness-NA	Morning stiffness-15
5	Pain- Extreme	Pain- mild	Pain-mild

Laboratory & Radiological finding: The diagnosis of O.A is usually based on clinical & Radiological feature. In the early, the radiolograph may be normal, but joint space narrowing become evident, as articular cartilage is lost, other charactertistic radiographic finding included sub-chondral custs & osteophytosis.

No laboratory studies are diagnostic for O.A but specific laboratory testing may help in identifying one of the underlying causes of secondary O.A. R.A factor test use to make D/D of aamvata with respect to Sandhigatavata, serum uric acid use to make D/D of vatarakta with respect to Sandhigatavata.and ASO Titer use as systemic marker in sandhigatavata.

CONCLUSION

The study of symtomatology of Sandhigatavata and the corresponding explanation found in contemporary

medicine pertaining to articular, chronic, Non-infammatory, Primary osteo-arthritis, showed that both these entities are co-related to great exatent.

- ➤ The clinical assessment of the subjects of study showed that Sandhi-Shoola, Sandhi-Shotha and Atopa are the parthyatma lakshana of sandhigatavata.
- There is no specific laboratory test to find out sandhigatavata, they were use only for prepration of D/D for other diseases like rhematoid arthritis, gout etc.

REFRENCES

 Charaka Samhita with "Charak Chandrika" - Hindi commentary, by Dr. Brahmanand Tripathi, 2008. Chaukhamba Surbharati Prakashan, Varanasi.

- Charaka Samhita with "Charak Chandrika" Hindi commentary, by Dr. Brahmanand Tripathi, 2008. Chaukhamba Surbharati Prakashan, Varanasi.
- 3. Sushruta Samhita, with "Ayurveda Tatva Sandipani" by Ambikadutt Shastri, Chaukhambha Sanskrit sansthana, Varanasi.
- 4. Ashtang Samgraha by Dr. Ravi Dutt Tripathi, 2005. Chaukhamba Sanskrit Pratishthan
- 5. Ashtang Samgraha by Dr. Ravi Dutt Tripathi, 1999. Chaukhamba Sanskrir Pratishthan
- Ashtang Hridaya, Kaviraj Atrideva Gupta, 2000. Chaukhamba Sanskrit Bhawan sansthan Varanasi.
- Madhava Nidana of Shri Madhavakara with Madhukosh Commentary by Dr P Himasagara Chandra Murthy, 2006. Part-1, Chaukhamba Krishanadas Academy Varanasi.
- 8. Madhava Nidana of Shri Madhavakara with Madhukosh Commentary by Dr P Himasagara Chandra Murthy, 2006. Part-2, Chaukhamba Krishanadas Academy Varanasi.
- Bhava.Prakasa of Sri Bhavamisra edited with Vidyotini Hindi commentary by Pandit Sri Brahma Sankara Misra, 1956. Chaukhamba Sanskrit Series Office, Varanasi.
- Harrison's Principals of Internal Medicine, 16th Addition.
- 11. Davidson's Principles and Practice of Medicine, 19th edition
- 12. https://en.m.wikipedia.org>wiki>Osteoarthritis
- 13. Roga Nidana and Vikruthi Vijnana, Dr. Nisha Kumari M.D (Ayu), 2017. vol.-2. Chaukhambha Orientalia, Varanasi.

www.ejpmr.com Vol 8, Issue 3, 2021. ISO 9001:2015 Certified Journal 186