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REVIEW ARTICLE ON SANDHIGATVATA WITH SPECIAL REFERENCE TO OSTEOARTHRITIS

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ABSTRACT

Sandhigata Vata is the commonest form of articular disorder. It is a type of Vatavyadhi which mainly occurs in Vriddhavastha due to Dhatukshaya, which limits everyday activities such as walking, dressing, bathing etc. thus making patient disabled / handicapped. It being a Vatavyadhi, located in Marmasthisandhi and its occurrence in old age makes it Kashtasadhya. Vata Dosha plays main role in the disease. Shula Pradhana Vedana is the cardinal feature of the disease associated with Sandhishotha with Vata Purna Druti Sparsha, lack of movements of the joints or painful movement of the joints. In the present era Sandhivata is the most common disease affecting a large population. Sandhivata term is derived from words as "Sandhi" and "Vata". When Vata lodges in Sandhi (joints), it is characterized by pain, swelling, and restriction of joint movement. The clinical presentation of Sandhivata closely mimics with the disorder called Osteoarthritis which is the second most common rheumatologic problem.

KEYWORDS: Sandhigatvata, Osteoarthritis, Vata Vyadhi.

INTRODUCTION

Sandhi Vata is a type of Vata Vyadhi.^[1] in which vitiated Vata lodged in joints and causes severe pain i.e. Shool Pradhan Vedana, swelling, affects movements of joints, flexibility of joints and daily activities like: walking, sitting, climbing etc. This disease comes under Vata

Vyadhi hence the Hetu, Samprapti, Pathya, Apathya of this disease would be of Vata Vyadhis. In Modern Medicine, this disease is correlated with Osteoarthritis because of the same cardinal features. It is a degeneration of joint cartilage and the underlying bone. It causes pain and stiffness, especially in the hip, knee, and thumb joints. Osteoarthritis occurs when the cartilage, which is a flexible connective tissue in the joints gradually worsens. It enables friction-less joint motion. If the cartilage wears down completely, bone will rub on bone. But besides the breakdown of cartilage, it affects the entire joint. It causes changes in the bone and worsening of the connective tissues that hold the joint together and attach muscle to bone. It also causes inflammation of the joint lining. [2] According to Acharya Charak. [3] Sandhigata Vata is a type of Vata Vyadhi in which Shool Pradhan Vedana, Vata Purnadruti, swelling of the joints occurs which affects the movement of joints and their flexibility, thus affects the daily activities like walking, sitting etc. According to Acharya Sushruta. [4] Sandhigata Vata is a type of Vata Vyadhi in which degeneration of joints, pain, swelling at the joints occurs. According to Acharya Vagabhata. [5] Vagbhata followed as Acharya Charak and Acharya Sushruta. The Hetu (causative factors) of Sandhigata Vata are Aharja (Diet regimen) and Viharja (Activties) viz; Ahar Hetu: Excessive consumption of dry, cold food, Excessive consumption of bitter and pungent food, Consumption of eatables in less quantity, Over fasting etc.

Sannikrishta Hetu- Ativyayama (excess of physical exercise), Abhighata (injury to joint), Marmaghata (injury to vital point of the joints), Pradhavana (running) etc.

Viprakrishta Hetu - Rasa- Kashaya, Katu, Tikta, Guna- Rooksha, Sheeta, Laghu Ahara krama- Alpahara, Adhyashana, Pramitashana.

The Bheda of Sandhivata are not described in texts however it can be understood on the basis of the following

- 1. According to Samprapti
- 1) Dhatukshayajanya sandhivata as degeneration occurs most commonly.

Vishamashana

ii) Avaranajanyasandhivata: The primary cause is Avarana of Kapha by Vayu. Manasika-Chinta, Shoka, Krodha, Bhaya Viharaja- Atijagarana, Vishamopacara, Ativyavaya, Shrama, Divasvapna, Vegasandharana. Other Causes Living in Jangaladesha is another causative of Vataprakopa. During the end of Greeshma ritu, Varsha ritu and Shishira kala.

Risk Factors

Injury or over use- Knee bending and repetitive stress on a joint, can damage a joint and increase the risk of OA.

- Age- The disease is more common as the age advances. Gender- Women are more likely to develop OA than men, especially after the age of 50.
- Obesity- The chances increases with increase in weight as extra weight puts more stress on joints.
- Genetics People having family history are more likely to develop OA.
- Occupational factors- Men whose jobs require knee bending and at least medium physical demand had a higher rate of radiographic evidence of knee OA and more severe radiographic changes.

PATHOLOGY OF OSTEOARTHRITIS

Current practice solutions in osteoarthritis (OA) have come a long way: from dismissing OA as a phenomenon of inevitable degeneration to acknowledging its etiology, prevalence, symptomatology, and limitations on physical function in modern times. OA continues to be the most common joint disorder in the world, and many patients remain undiagnosed. As a disorder labeled "wear and tear," the consequences of OA will certainly continue to rise as the population ages and as the percentage of the workforce older than 65 years of age increases. Not only does symptomatic OA cause chronic pain and diminish quality of life, it can also add a distinct emotional component to the functional disability experienced. Pain and stiffness plague patients with OA. OA related pain is challenging to treat because it is generated via a multitude of both inflammatory and mechanical nociceptive conduits. There is growing speculation that secondary periphperipheral, spinal, and supraspinal neuropathic pain mechanisms may also be activated. Recent research also has revealed that changes in almost all periarticular tissues are part of the spectrum of this disease.

Clinical Features

Both Kshaya as well Avarana

In the line of Nija and Agantuja it can be classified in two varieties -

Nija - Due to vitiation of Vata by Dhatukshaya, Avarana etc

Agantuja- Due to trauma

In modern Symptoms of Osteoarthritis

Osteoarthritis symptoms often develop slowly and worsen over time. Signs and symptoms of osteoarthritis include

Pain- Affected joints might hurt during or after movement.

Stiffness- Joint stiffness might be most noticeable upon awakening or after being inactive.

Tenderness- Your joint might feel tender when you apply light pressure to or near it.

Loss of flexibility- You might not be able to move your joint through its full range of motion.

Grating sensation- You might feel a grating sensation when you use the joint, and you might hear popping or crackling.

Bone spurs- These extra bits of bone, which feel like hard lumps, can form around the affected joint.

Swelling- This might be caused by soft tissue inflammation around the joint.

Samprapti- From the onset of Dosha Dushya Dushti till the evolution of the Vyadhi there occur various pathological stages which is explained by Samprapti. 1. Dhatukshaya janya-Vata Dosha is predominat in old age and Kapha is decreased also the Agni gets impaired due to which the Dhatus produced are not at their best which ultimately leads to the degeneration. As Kapha is decreased the Shleshak kapha in joints also depletes resulting in Kshaya of Asthisandhi. If further one continues indulging in Vata aggrevating factors the Sthanasamshraya of Prakupita Vata takes place in the Khavaigunyayukta sandhi. This localized Vayu due to its Ruksha, Laghu, Kharadi Guna results in Sandhivata.

Hetu

Agnivaishamya ↓ (kha-vaigunya in respective sandhi) ↓ Aapyayamanaha, chiyamanaha ↓ Vata vriddhi, kapha kshaya ↓ Kapha, Pitta, Rakta, avarutha ↓ Asrujyamanaha - kshiyamana avayava ↓ Snayu-sandhi-asthi ashrita vata, kapha ↓ Sandhigata vata

2. Aavaran janya

In obese usually Sandhivata occurs in the weight bearing joints. As Meda dhatu is produced in excess it will cause obstruction and does not nourishes the Uttrotar dhatus leading to Kshaya. The excessive fat will cause Aavarana of Vata. This vitiated Vata Sandhivata come under vatavyadhis and so may not present any Poorvaroop (pre-clinical symptoms). The classical signs and symptoms are as below - The Lakshana of Sandhivata are described in Charaka chikitsa sthana as vatapurnadratisparsha (tenderness), shotha (swelling), Prasarana kunchanpravritisavedna (Pain during extension and flexion of joints). In Sushruta Nidansthan Lakshana are described as Hanti sandhi (stiffness), Sandhi sopha, Sandhishola (pain in joints), Asthishosha (degeneration). In Ashtangsanghraha and Hridya, the Lakshana are described as-Vatapurnadrati. Madhav nidan has described the Lakshan of Sandhivata as Hantisandhi, Sandhishool, Sandhiaatop (crepitus), when settle down in joints will produce Sandhivata.

Disease Process According To Shata Kriya Kala

- 1. Sanchaya (Stage of Accumulation):- Normally the Dosha remains in a stage of equilibrium in its own Ashaya, but any disturbance in the normal state, due to any Nidana result into its excessive accumulation within their Ashaya or at their original site. In this stage due to Vata Dosha, Stambha Purna Koshthata may be manifested. In case of patient, who is going to develop Sandhigatavata later on, Lakshana of Vata Sanchaya as mentioned above may be seen due to Vata Sanchaya at its Moola Sthana i.e. Pakvashaya. Also some symptoms of Vata Vriddhi may be seen in Asthi like Asthi Rukshata, Asthi kharata as it is the seat of Vata. Also this is because Nidana has role on Dosha and Dushya both.
- 2. Prakopa (Stage of Vitiation):- Failure to take corrective measures during Sanchaya Avastha and allowed to act further, the Prakopa stage starts. In this stage already accumulated Dosha get strengthened at their own place and tend to become excited in this stage. Due to provocation of Vata, Kostha toda and Kostha Sancharana may be manifested. Same symptoms like Asthi Rukshata, Asthi Kharata may be seen with its severity.
- 3. Prasarana (Stage of spread):- If the previously provocative factors are still not corrected by appropriate means, then the excited Doshas pass on to the next stage known as Prasara. At this stage, excited Dosha spreads to other organs, structures and parts of the body. The symptoms like Asthi Rukshata, Kharata may appear with its severity. Vatavriddhi may cause Khavaigunya in Asthi and Majjavaha Strotas.

- 4. Sthana Samshraya (Stage of localization):- As a continuation of previous stages and conditions, in this stage the spreading Doshas become localized wherever there is Khavaigunya and it marks the beginning of specific disease pertaining to that structure. This stage represents the Purvarupa phase of disease and the interaction between the Dosha and Dushya takes place. In case of Sandhigatavata, Vitiated Vata get localized in Khavaigunya which is present in Asthi and Majjavaha Strotas. Means Prakupita Vata get situated in Asthi and Sandhi causing Asthi and Sandhigatavata. Here, Purvarupa of the disease like occasional Sandhishoola and Shoth occur.
- 5. Vyakti (Stage of Onset):- This is the stage which gives a clear picture of a disease with its full manifestation i.e. Roopa. After getting Sthana Samshraya in Asthi and Sandhi, Vata absorbs the Sneha from them by its Ruksha, khara qualities and so Vyaktiavastha takes place with symptoms like Shoola, Shotha, Hantisandhigatan etc.
- 6. Bheda (Stage of Complication):- According to Sushruta if the proper management is not done at this stage, the vitiated Doshas or the disease may become incurable. Severe complications may take place. Subluxation, deformity of the joints, loose body in joint cavity, Loss of movements of joint take place as complication of the disease. Hanti Sandhigatan occurs in the later stage of disease. Hanti Sandhigatah means Sandhivishlesha or Stambha may occur in this stage.

DISCUSSION

Chikitsa of Sandhigatavata

Sandhigatavata should be planned by taking into consideration of factors as doshic involvement, vitiated dhatu.

In case of dhatukshaya (degenerative changes), treatment should be given for santarpana and dhatuposhana (nutrition).

In case of margavarodhajanya (obstructed pathology) one has to treat vitiated kapha and meda and then to vatadosha. Snehana and abhyanga is contraindicated in initial stage.

According to Charak "Vighatana of Samprapti" is the chikitsa. Sandhigatavata is a vatika disease, mainly occurring due to Dhatukshaya or Avarana, so general treatment of vatavyadhi like snehan, swedan, mriduvirechan, niruha basti, vatahara ausadhis, ahar and vihar etc can be adopted considering its etiology. [6]

Acharya Charak has mentioned in vatavyadhi chikitsa about the Brimhana measures in different forms like bhojana, snigdhasweda, seka, basti etc. are beneficial for the patients suffering from vatarogas.

All the Acharyas gives prime importance to Snehana chikitsa in the management of Sandhigatavata. Snehana can be performed both Bahya and Abhyantara. Bahya Sneha include - Abhyanga, tarpana, Murdhataila etc., and Abhyantara Sneha include Bhojana, pana, nasya and Basti.

1) Sushruta has explained the specific line of treatment of sandhigatavata as snehana, upanaha, agnikarma, bandhana and mardana.^[7]

In Chakradutta and Bhaishiya Ratnavalli there is mention of vataharaganas. Chakradutta mentioned drugs like- Aswagandha, Bala, Dasamoola, Sunthi, Rasna etc. And Bhaishiya Ratnavalli mentioned - Nirgundi, Guggulu, Gandhaprasarani, Rasna, Bala, Shigru etc.

Vagbhata has mentioned snehan, daha and upanaha if vayu get aggravated in snayu, sandhi and sira.

According to Vagbhata after using snehan and swedan in whole body, the person who is suffering from harsa, toda, ruka, Aayam, sujan, jakaran, graha etc get relieved and which bring lightness to the body.^[8]

Management^[9]

Goals of managing OA include

The management of OA is broadly divided into

Non-pharmacological- Physical exercise, Weight loss, Ice packs.

Pharmacological - Nonsteroidal anti-inflammatory drug, Analgesic, Dietary supplement and Narcotic.

Surgical treatment

Education

Social support

Physiotherapy (aerobic exercise, muscles strengthening, and patellar strapping)

Occupational therapy

Acupuncture

Transcutaneous electrical nerve stimulation

Maintain an acceptable body weight

CONCLUSION

Osteoarthritis is considered one of the most Kastha Sadhya Vyadhis and is controllable with some extent and restrict the further degeneration of the cartilages by the proper Ayurvedic measures. The drugs which help in this regard are Bala, Ashwagandha, Nirgudi, Rasna, Shallaki, Eranda, Guduchi, Amalaki etc Vatahara drugs. Further scope of study is evaluate the anti inflammatory, anti oxidant properties of the above mentioned Ayurvedic measures.

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