

A Review Article of Janusandhigata Vata W.S.R. To Osteoarthritis

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Received : 2 Sept. 2024

Accepted : 27 Sept. 2024

Abstract

Sandhigata Vata, as described in Ayurvedic texts, encompasses a range of symptoms that align closely with those of contemporary osteoarthritis. The symptoms you mentioned—such as Vatapoorna-Dritisparsha (pain upon movement), Sandhi Shotha (joint swelling), Prasarana Acuchanayo Vedana (restricted movement pain), Atopa (heaviness), and Sandhi Hanti (joint tenderness)—provide a clear framework for understanding this condition in Ayurvedic terms. Osteoarthritis of the knee, or Sandhigata Vata in Ayurveda, is indeed a prevalent condition, particularly among older adults. As populations age and obesity rates rise, the incidence of symptomatic knee osteoarthritis is expected to increase significantly. Ayurvedic approaches to managing Sandhigata Vata focus on balancing the body's energies, promoting joint health, and alleviating pain. Treatment often includes dietary modifications, herbal remedies, Panchakarma therapies, and lifestyle adjustments aimed at reducing inflammation and improving joint function.

Keywords - Janu sandhigata vata, shool, osteoarthritis of knee, Ayurvedic management

Introduction :

The classical term 'Janu Sandhigata Vata' in Indian medicine correlates closely with osteoarthritis (OA) of the knee joint. This chronic, degenerative, inflammatory disease significantly impacts an individual's quality of life. Contemporary lifestyle factors—including diet, activity levels, and environmental influences—are key determinants in the onset of such conditions. Sandhigata Vata, classified as one of the Vatavyadhi, is the most prevalent form of articular disorder.

Ayurvedic texts highlight degenerative diseases through concepts such as “Dhatu Saithilya” (weakening of tissues) and “Dhatu Kshaya” (deterioration of tissues). Acharya Charaka refers to it as 'Sandhigata Anila' in the context of Vatavyadhi Chikitsadyaya. The term 'Gata' signifies the initiation of movement or the transport of something to a specific location, indicating how this condition affects joint mobility. Sama Dhatu Gati denotes the normal metabolic transformation of tissues. Given that the knees are weight-bearing joints, they are particularly susceptible to degenerative changes, manifesting as Janu Sandhigata Vata. Osteoarthritis of the knee aligns closely with the inflammatory characteristics described in Ayurveda, especially regarding

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etiology, pathology, and clinical features. Common treatments for Vatavyadhi include Snehana (oleation) and Swedana (sudation), which are also emphasized in managing Sandhigata Vata. Other significant treatments include Agnikarma (cauterization), Swedana, and Upanaha (medicated poultices), all aimed at alleviating symptoms and improving joint function. This Ayurvedic framework offers valuable insights into the holistic management of knee osteoarthritis, emphasizing the need for a balanced approach that addresses both physical and lifestyle factors. ^{[1][2]}

Objectives :

The symptoms of Janu Sandhigata Vata vis-à-vis osteoarthritis of knee are where Janu refers to knee, sandhi is joint, and Vata is the humor permeating the knee joint. In this, with advancing age, the influence of Vata Dosha increases, resulting in the gradual degeneration of the body. A critical review of the disease with Ayurvedic therapeutics in the treatment and/or management of knee osteoarthritis. Special emphasis is placed on interpreting the literature in the context of its strengths and weaknesses, with particular attention placed on study protocols used. A number of research works have been carried out to study the efficacy of treatment modalities in Janusandhigata Vata, which is found in the AYUSH Research Portal and PubMed. The present article reviews the research work published. A unique study is made with relevant ayurvedic and contemporary science for future research. Here, relevant basic science is also emphasized.

Materials and Methods - Ayurvedic Classics and the Management of Janu Sandhigata Vata In exploring the management of Janu Sandhigata Vata (knee osteoarthritis), a thorough examination of Ayurvedic classics—including Samhita Granthas, Sangrahas, Nighantus, and other relevant texts—provides valuable insights into the disease and its treatment.

Aetiology :

In Ayurvedic pathology, Kalaja factors refer to environmental and seasonal influences that can exacerbate conditions like Janu Sandhigata Vata (knee osteoarthritis). Among these, the seasons of Shishira (winter) and Grishma (summer) are particularly impactful, as they can influence the balance of doshas and affect joint health.

Key Causative Factors

1. Seasonal Influence
2. Rogatikarshana (Weakness During Disease):
3. Marmaghata (Injury to Marma Sthanas):
4. Dhatu Kshaya (Emaciation)
- Margavorodha (Obstruction of Channels)

1. Showing Etiological Factors of Vatavyadhi ^[3]:

- AHARAJA - Atiruksha (excessive dry), Atisheeta (cold), Atialpa (very little quantity), Atilaghu (very light), and Abhojana (no food intake).
- VIHARAJA - Atiprajagarana (no sleep), Divasvapna (sleeping in the day), Ativyavaya (excess sexual act), Vegasan dharana (stopping natural urges), Plavana (swimming), Atiadhva (excess walk), and Ativyayama (excess exercise).
- MANASIKA - Atichinta (excess anxiety), Atishoka (excess grief), Atikrodha (excess anger), Atibhaya. (fear)
- OTHERS - Dhatunam Sankshayat, Rogatikarshanat (weakness due to prolonged diseases), Marmaghata (trauma to vital parts)

Clinical Features of Janu Sandhigata Vata (Knee Osteoarthritis)

Janu Sandhigata Vata does not have a specific poorvaroopa (preliminary stage), but the clinical features are characterized by various signs and symptoms indicative of the condition. These include: Sandhi Vedana (joint pain) Sandhi Shotha (swelling): Vatapurna Druti SparshaPrasarana

Akunchana Pravrutisavedana: Atopa (Cracking Sounds)

2. Risk Factors for Janu Sandhigata Vata (Knee Osteoarthritis) [4] -

Risk Factor

Effect

Age-Increases with age Maximum incidence after the age of 80 Trauma-Joint fractures and injuries lead to increased risk for OA.

Occupation - The incidence is more in persons doing heavy physical work like laborers.

Exercise - OA is common in sportspeople or those doing aggressive exercise.

Gender - Men under the age of 50 Women after the age of menopause

Genetics - Incidence has been found to be increased in children of parents with early-onset OA.

Obesity - Increases the risk of OA

Diet - Increased risk in people with lower vitamin C and D blood levels

Samprapti of Janu Sandhigatavata :

Samprapti of Janu Sandhigata Vata (knee osteoarthritis) In Ayurvedic classics, there are no explicit references regarding the samprapti (pathogenesis) of Janusandhigata Vata. However, we can refer to the general samprapti of Sandhivata—a category of Vatavyadhi—to understand its development. According to Acharya Charaka, Nidana sevana (exposure to causative factors) leads to the aggravation of Vata, which then accumulates in Riktasrotas (spaces in the body). This accumulation gives rise to both generalized and localized diseases.

As the pathogenesis progresses, patients may exhibit clinical features associated with Janusandhigata Vata (osteoarthritis). When the vitiated Vata Dosha settles in the Janusandhi (knee joint), it results in pain and inflammation. In later

stages, this condition may lead to joint dislocation and loss of function in the knee. In Ayurvedic medicine, the Samprapti (pathogenesis) of Janu Sandhigata Vata can be understood by correlating it with the general pathogenesis of Sandhivata (Vata-related joint disorders). While there are no direct references in Ayurvedic classics specifically for Janu Sandhigata Vata, we can extrapolate from the established principles of Vatavyadhi.

Pathogenesis Overview :

Nidana Sevana (cause factors) - The initial stage involves exposure to Nidanas (causative factors) that aggravate Vata Dosha. This can include dietary habits, lifestyle choices, trauma, and environmental factors that increase the Vata imbalance in the body.

Prakupita Vata (vitiating vata) - The aggravated Vata Dosha becomes Prakupita (vitiating) and accumulates in Riktasrotas (channels with free space) within the body. This accumulation often occurs in the joints, particularly in the knee (Janu Sandhi).

Sthana Samshraya (localizing of Vata) - The vitiating Vata then undergoes Sthana Samshraya, meaning it localizes in the knee joint. This leads to a cascade of clinical manifestations:

Pain and Inflammation: The localized Vata causes pain, swelling, and tenderness in the knee, characteristic of osteoarthritis.

Joint Dysfunction - Over time, the continued presence of Vata in the joint can lead to degeneration of cartilage, resulting in decreased mobility and function.

Dislocation and Loss of Function - In advanced stages, this may culminate in structural changes, dislocation, and significant functional impairment of the knee joint.

Samprapti Ghataka of Janusandhigatavata

Here's a detailed breakdown of the Nidana, Dosha, Dushya, Srotas, Srotodusti, Agni, Dosha Marga,

Roga Marga, Udbhavasthana, and Vyaktasthana related to Janu Sandhigata Vata:

1. Nidana (Causative Factors)-Vata Prakopaka Nidana: Factors that aggravate Vata, such as excessive dryness, cold exposure, trauma, and improper diet or lifestyle.
2. Dosha-Vata: Specifically, Vyanavayu is involved, contributing to movement and function in the joints. Shleshaka Kapha, also plays a role, providing lubrication and stability to the joint.
3. Dushya (Tissues Involved): Asthi (bone), Majja (bone marrow), Meda (fat/adipose tissue)
4. 4.Srotas (Channels)-Asthivaha Srotas Channels related to bone health, Majjavaha Srotas: Channels associated with bone marrow, Medovaha Srotas Channels involved in fat metabolism.
5. Srotodusti (Channel Disturbance)-Sanga: obstruction or blockage in the channels, leading to inadequate circulation and nourishment of the tissues.
6. Agni (Digestive Fire)-Mandagni: Weakened digestive fire, which affects the metabolism of tissues and can lead to accumulation of toxins (ama) in the body.
7. 7.Dosha Marga (Path of Doshas): The path taken by Vata and Kapha doshas leading to the affected site, particularly focusing on the joints.
- 8.Roga Marga (Path of Disease): The progression of the disease process as Vata and Kapha accumulate in the knee joint, leading to pain, inflammation, and functional impairment.
- 9.Udbhavasthana (Origin Site)-Marmasthi Sandhi: The vital points and joints where Vata accumulates, leading to pain and dysfunction.Madhyama: The middle regions of the body, where the manifestation of symptoms begins.
- 10.Vyaktasthana (Manifestation Site)-Pakvashaya: The area of manifestation, primarily focusing on the knee joint (Asthi-Janusandhi), where symptoms like pain, swelling, and limited mobility are observed.

Prognosis of Janu Sandhigata Vata (Knee Osteoarthritis) :

Janu Sandhigata Vata, as a form of Vatavyadhi, presents specific characteristics that influence its prognosis: Kastasadhya: Difficult to Cure: Janu Sandhigata Vata is classified as Kastasadhya, indicating that it is challenging to completely cure, especially in elderly patients. This is due to the chronic nature of the condition and the degenerative changes in the joint.Location: Marma Sthana: The knee joint is considered a Marma Sthana (vital point), where vital structures are located. This increases the complexity of treatment, as injury or imbalance in this area can significantly affect overall health.Roga Marga:Madhyama Roga Marga: The condition manifests at a moderate stage, suggesting that symptoms can be managed but not fully eradicated. This stage often leads to chronic pain and functional limitations. Dhatugata:Asthi-Majja Dhatu Ashrita: The disease affects the Asthi (bone) and Majja (bone marrow) tissues, which are integral to joint health. Degeneration in these tissues leads to pain, inflammation, and reduced mobility.

Pathyapathya for Janu Sandhigata Vata (Knee Osteoarthritis) ^{[5] [6]}

In Ayurveda, Pathyapathya refers to the dietary and lifestyle guidelines that can help manage Janu Sandhigata Vata by balancing Vata Dosha and supporting Shleshaka Kapha. Understanding these guidelines is essential for effective treatment and prevention of the condition.

Factors Contributing to Vata Prakopa-Vata Prakopaka Ahara and Vihara: Dietary and lifestyle habits that aggravate Vata, such as excessive dryness, cold, or irregular eating patterns.Dhatu Kshaya: Depletion of body tissues, particularly affecting joint health. Sthoulya (obesity) and Vardhakya (aging): These factors significantly influence the manifestation of knee osteoarthritis.

(Pathya Ahara) - Godhuma (Wheat) Nourishing and grounding are helpful for balancing Vata.

Masha (Blackgram): Rich in protein and beneficial for joint health, Raktashali (Red Rice) provides nutrition and supports digestion. Draksha (grapes): natural sweetener with antioxidant properties, Badara (dry juice): Nourishing and soothing for the joints, Madhuka (sweet): Sweet flavors help in balancing Vata, Ushnajala (Hot Water): Warm liquids aid digestion and improve circulation. Shritashita Jala (Hot and Cold Water): Alternating temperature can stimulate circulation and soothe joints.

Recommended Lifestyle (Pathya Vihara)-Atapa Sevana (Sitting in Sunlight): Helps warm the body and improve circulation, reducing stiffness in joints.

Foods to Avoid (Apathya Ahara)-Yava (Barley): Considered aggravating for Vata when consumed in excess, Chanaka (Chickpeas): Can be difficult to digest for some individuals, Gadarbha Dugdha (Certain types of milk): May not be suitable for all, particularly if it is cold or processed. Sheetajala (Cold Water): Can increase Vata and lead to stiffness, Naveena Madya (New Fermentation): Alcohol can aggravate Vata and lead to inflammation. Shushka Mamsa (dry meat): heavy and difficult to digest, which can increase Vata imbalance, Jambu (Java Plum): Can be drying and may aggravate Vata.

Lifestyle Practices to Avoid (Apathya Vihara) - Chinta (Tension): Stress can aggravate Vata; practices like meditation and relaxation are beneficial. Ratrijagarana (Staying Awake Late): Disrupts natural rhythms and can lead to increased Vata. Vega Sandharana (Holding Natural Urges): Suppressing natural urges can lead to imbalances in the body. Chankramana (walking): While moderate walking is beneficial, excessive or aggressive walking can be harmful.

Discussion :

Knee osteoarthritis (OA) represents the most prevalent form of arthritis affecting the knee, characterized by degeneration of joint structures,

leading to pain, functional impairment, and stiffness. This systematic review highlights the efficacy of Ayurvedic treatments, which provide moderate to strong evidence for reducing these symptoms, thereby improving overall quality of life for affected individuals. [7]

Comparison of Treatment Approaches: Contemporary medical science often leans heavily on pharmacological interventions, focusing on symptom management through medications such as NSAIDs, corticosteroids, and analgesics. While these can be effective in the short term, they often come with a range of side effects and do not address the underlying causes of the disease. This materialistic approach can sometimes overlook the importance of holistic health, which integrates physical, mental, and spiritual well-being.

In contrast, Ayurveda promotes a more comprehensive framework for health. By focusing on the balance of body doshas, dietary adjustments, and lifestyle changes, Ayurveda aims not only to alleviate symptoms but also to restore overall harmony in the body. This holistic perspective can lead to more sustainable outcomes and greater patient satisfaction.

Advancements and Limitations in Contemporary Medicine

The advancements in contemporary medicine, particularly in diagnostic techniques and surgical interventions, represent significant progress in understanding and managing knee OA. Innovations in molecular biology and genetic engineering hold promise for future treatments. However, the increasing incidence of chronic and degenerative diseases suggests that current approaches may still fall short in effective long-term management.

While surgical options like joint replacement can be beneficial, they are not without risks, including complications and the need for rehabilitation. As such, it is crucial to explore alternative and complementary therapies that can enhance overall treatment strategies.

Classical Symptoms and Ayurvedic Perspective on Sandhigata Vata (Osteoarthritis) ^{[8][9][10]}

The classical symptoms of Sandhigata Vata, correlating with knee osteoarthritis (OA), include Vata Purna Druti Sparsha, which refers to the swelling and fullness felt in the joint due to an accumulation of Vata. Prasarana Akunchanayoh Apravritti: This indicates difficulty in joint flexion and extension, highlighting the stiffness and limited mobility often experienced by patients. Vedana: Pain in the affected joints is a hallmark symptom, significantly impacting daily activities and quality of life.

Demographics and Age Factor

Sandhigata Vata is commonly observed in both sexes, particularly after the age of 40. This age-related prevalence emphasizes the need for proactive management strategies as individuals transition into later stages of life.

Ayurvedic Approach to Health Preservation and Disease Management

Ayurveda is not only focused on treating ailments but also emphasizes the preservation of health through a holistic approach. When dealing with patients, Ayurveda considers various individual characteristics, including Prakriti: The individual's constitutional type, which influences their susceptibility to diseases and response to treatment. Satmya: The adaptability of an individual to certain foods, environments, and lifestyles Sara: The quality of bodily tissues, which impacts health and healing. Samhanana: The body's structure and integrity, affecting strength and resilience.

Treatment of Janu Sandhigata Vata (knee osteoarthritis)

In Ayurveda, the treatment of Janu Sandhigata Vata focuses on alleviating the aggravation of Vata Dosha and balancing Shleshaka Kapha to ensure proper lubrication and mobility of the knee joints. Several therapeutic modalities are employed:

1. Snehana (Oleation)—External and Internal Oleation: Use of medicated oils (e.g., Mahanarayan

oil) for external application and Ghritas (clarified butters) for internal use to pacify Vata and enhance joint lubrication.

2. Swedana (Fomentation)-Sweating Therapy: Application of heat through steam or other methods to promote circulation, relieve stiffness, and enhance the penetration of oils.

3. Mridu Samshodhana (Gentle Purification)-Gentle Detoxification: Mild purgation techniques to eliminate toxins and balance doshas without causing excessive strain.

4. Basti (Enema Therapy)-Vatahara Basti: Medicated enemas aimed at pacifying Vata. This is considered a primary treatment for Vata disorders, delivering medicinal effects directly to the site of accumulation.

5. Vatahara Aushadha Prayoga (Vata-Reducing Medicines): Use of specific herbal formulations to reduce Vata, such as: Guggulu: Known for its anti-inflammatory properties. Shallaki: A potent herb for joint health. Various Ghritas: Formulations infused with medicinal herbs.

6. Dietary and Lifestyle Modifications (Ahara and Vihara) Diet: Emphasis on warm, moist, and nourishing foods that balance Vata and promote joint health. Lifestyle: encouragement of moderate exercise, yoga, and practices that avoid excess strain on the joints.

7. Other Procedures- Upanaha: Application of medicated pastes to the affected area for localized relief Agnikarma: Cauterization therapy using heat to alleviate pain and inflammation. Bandhana: Binding techniques to provide support to the joint. Mardana: Massage techniques aimed at relaxing muscles and improving joint mobility.

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