

SANDHIGATA VATA (OSTEOARTHRITIS) & IT'S GENDER PREVALENCE-EVIDENCE BASED RESEARCH

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Article Received on
28 Dec. 2021,

Revised on 18 January 2022,
Accepted on 08 Feb. 2022

DOI: 10.20959/wjpr20223-23211

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ABSTRACT

Sandhigata vata is one of the most common forms of articular disorder. In today's era due to sitting jobs, air conditioner application, lack of proper healthy diet, travelling and old age etc leads to this disease which is increasing day by day. Osteoarthritis is one of the major disorders. The gender prevalence nowadays is most commonly found in women. The present work is an attempt to highlight the details of the age in which this disease is occurring and to know the gender prevalence.

INTRODUCTION

Sandhigata Vata clinical presentation is excessively aggravated Vata inside joints causes swelling in the joints, appears as a leather bag inflated with air on palpation and pain during extension and flexion of the joints.^[1]

Excessively aggravated Vata inside joints causes the destruction of functions of joints and gives rise to pain and swelling in the joints.^[2]

Hanti Sandhigata Sandhishoolatopa Karoti Cha. Excessively aggravated Vata in the joints causes destruction of the actions of joints and manifest pain and crepitation in the joints.^[3]

According to Acharya Shushrut, it is with symptoms of Hantisandhigata (degeneration of joints), Shoola (pain), Shopha (swelling) at the joints. Acharya Madhav & Vagbhat have described almost same definition as Acharya Charaka and Shushruta samhita.

Nidana panchaka of vatvyadhi

Nidana

There is no specific description about Hetu of the disease Sandhigata Vata as it is included under Vatvyadhi. The Hetu of the Vatvyadhi are to be accepted as the Hetu of the Sandhigata Vata.

General hetu of vatvyadhi

1. Aaharaja hetu
2. Viharaja hetu

Aaharaja-Hetu

Ruksha (dry), Sheeta (cold), Alpa (in small quantity), Laghu (light diet), Agnimandya, Tikta, Katu, Kashaya Rasatmaka Aahara (diet) are responsible for the Vataprakopa which further leads to formation of Vatvyadhi.

Viharaja-Hetu

Laghana (emaciation), Plawana (swimming), Ativyayama (excessive exercise), Atimaitihuna (excessive sexual activity), Mala Mutra Kshyaya, Rasadi Dhatukshaya, Diwaswapna (day sleeping), Ratrijagrana (Insomnia), Dhatukshyaya, Aaghata (accidental fall) and Vegadharana are included in Viharaja Hetus.

Samprapti (Pathogenesis)

Acharyas have described the following Samprapati of the disease Sandhigatavata.

Hetu Sevana –Vataprakopa-Dhatukshaya at Strotas-Increases Ruksha, Parushata, Kharata at strotas - Vayupurana in Rikta Strotas -Vatvyadhi (Dhatukshayjanya)- Sandhigatavata.

As Vata is dominant in old age hence Vata related disorders become prevalent during this season. Another most important reason for which this disease is most likely found especially in women's is the Dhatukshayaja Vata Vriddhi. This clinical condition is compared with osteoarthritis. It is a most common form of arthritis. Some people call it as degenerative joint disease or "wear and tear" arthritis. It occurs most frequently in the hands, hips, and knees. The cartilage within a joint begins to break down and the underlying bone begins to

change. These changes usually develop slowly and get worse over time. It can cause pain, stiffness, and swelling. In some cases it also causes reduced function and disability; some people are no longer able to do daily tasks or work.

How many people have osteoarthritis?

The most prevalent form of arthritis, Osteoarthritis has been affecting 15 million adults annually with a prevalence ranging 22% to 39% in India. Other common joint conditions affecting Indians are gout and rheumatoid arthritis. Osteoarthritis is more commonly observed in women and more prevalent with ageing.

What are the risk factors for osteoarthritis?

- Joint injury or overuse—Injury or overuse, such as knee bending and repetitive stress on a joint, can damage a joint and increase the risk of osteoarthritis in that joint.
- Age—The risk of developing osteoarthritis increases with age.
- Gender—Women are more likely to develop osteoarthritis than men, especially after age 50.
- Obesity—Extra weight puts more stress on joints, particularly weight-bearing joints like the hips and knees. This stress increases the risk of osteoarthritis in that joint. Obesity may also have metabolic effects that increase the risk of osteoarthritis.
- Genetics—People who have family members with osteoarthritis are more likely to develop osteoarthritis. People who have hand osteoarthritis are more likely to develop knee osteoarthritis.
- Race— Some Asian populations have lower risk for osteoarthritis.

The most important risk factor for Osteoarthritis in women as in man is the obesity. Women who go through menopause often gain weight and the increase weight in joints may explain the rise of Osteoarthritis seen among women after a certain age. To enquire and understand the link of Sandhigata Vata with Gender; this survey study was planned.^[4-5]

MATERIALS AND METHODS

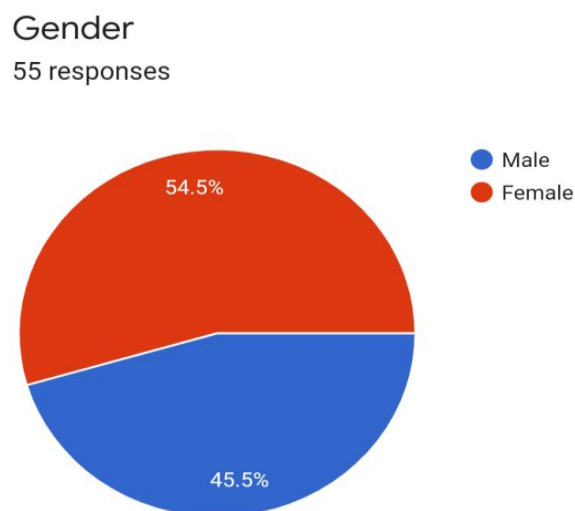
Tools consisted of structured questionnaire based on symptoms of Sandhigata Vata. The questionnaire was done with the help of Google forms and it was circulated among Patients, suffering from Osteoarthritis and a survey was done.

Inclusion criteria

- Classical sign and symptoms of Sandhigatavata are Shula, Shotha, Stambha, Sparsha-asahyata, Sphutana, Akunchana Prasarana Vedana etc. at the joints².
- Patients between age group of 30 - 70 years.
- Patients without any anatomical deformity were included.

Exclusion criteria

- Patients below 30 and above 70 years of age.
- Patients suffering from disease like D.M., Carcinoma, Psoriatic arthritis, *Vata Rakta*, *Phiranga*, S.L.E., Polymyalgia Rheumatica & Tuberculosis like systemic diseases are excluded.

Observations**Observation-1**

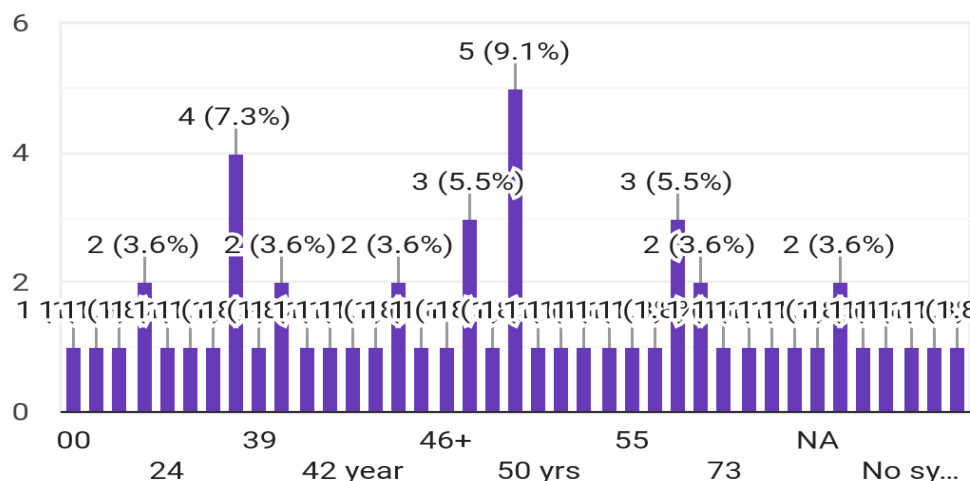
The data shows maximum numbers of patients were female.

The ratios was 54.5%:45.5% {Female: Male}.

Observation-2

At what age the first symptom was observed?

55 responses



The above graphic chart presents the most common age group of people with their first symptom of arthritis although there is often an underlying reason such as joint injury or repetitive joint stress from overuse. It shows people of over age 50, (more in women than men) have osteoarthritis.

DISCUSSION

As we see females are being affected more compared to males, there are certain causes which lead to accelerate osteo arthritis conditions more in females than males.

1. Over weight

After menopause women's generally gain weight due to which there is stress on weight bearing joints such as hips, knees, and ankles. This stress can lead to damaging friction between the bones of joints.

2. Changes in hormonal level

Evidence suggests that women's susceptibility to osteoarthritis may be related to disturbed hormone levels. Hormone levels fluctuate with menstruation cycles and also during menopause.

Menstruation and joint laxity – Increased hormone levels during certain stage of the menstrual cycle may increase joint laxity associated with joint instability and injury which

contribute to development of osteoarthritis. During menopause the estrogen levels drop. This drop may contribute to changes in body that accelerates the osteoarthritis process.^[6]

3. Also other reason can be differences in the musculoskeletal System and Biometrics

Women's anatomy has certain differences than that of men's. Evidence state that women's knees experience more wear and tear. Also women's knees contain less cartilage than men's knees, even when bone size and body mass is taken into consideration.

4. Lifestyle of women

Also plays a major role in osteoarthritis. Looking after the family without concerning about own's health, long standing while working in kitchen, looking after children, stress, faulty diet and regimens etc contributes to osteoarthritis.

Our bones constantly undergo a process of bone absorption and bone formation, together known as remodelling. As we age, the balance between absorption and formation changes, leading to bone loss. Our bones become less dense and more fragile. The composition and properties of cartilage change as well. There is less water content in cartilage as we age, reducing its ability to cushion and absorb shock. Cartilage also goes through a degenerative process which is when arthritis can develop. Ligaments and other connective tissues become less elastic and flexible with age. Because of the changes that occur within the musculoskeletal system as we age, our joints typically develop a decreased range of motion. As cartilage breaks down, joints may become inflamed and painful. Hence osteoarthritis can be seen mostly in aged people.^[7]

CONCLUSION

The clinical research is based on the gender prevalence in osteoarthritis and a common age in which osteoarthritis is most likely found. As based on observations and results that were obtained through the questionnaire that was circulated it was found that females were more prone to this disease than man. There are many underlying causes for this gender prevalence from differences in musculoskeletal system and biometrics of female compared to man, menopause, overweight, faulty diet and regimens like air conditioning atmosphere, lack of proper healthy food etc. And a common age wherein this disease is likely diagnosed is 50 years as per the survey.

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