



## Ayurvedic Management of Sandhivata (Janu Sandhi): A Case Report

Parveen Kumar\*

Asstt. Prof. Deptt. of Panchkarma. Dayanand Ayurvedic College, Jalandhar. Punjab.

### Abstract

*Sandhigata Vata* is a disease of the elderly. Life style, excessive weight, trauma and diet deficient in calcium are some of the risk/causative factors. *Rooksha Aahar* and *ativyaama* cause vitiation of *vaata*. It mainly affects weight-bearing joints of the body specially knee, hip, lumbar spine. Being commonest form of articular disorders, *sandhigata vata* poses a huge hindrance in day to day activities of the sufferer like walking, dressing and bathing etc. The common presentation of the disease is in the form of *Shula*, *Sotha*, *Vata poornadriti sparsha* and difficulty in flexion and extension of the *Sandhi*. Available treatment options include use of NSAID's, calcium supplementation and ultimately joint replacement. Here is a case of bilateral knee Osteoarthritis who was advised arthroplasty. After completion of the therapy, significant improvement was seen in pain, swelling, range of movement and walking distance. The patient was successfully managed with internal medication & *Janu basti* therapy. With increasing towards *ayurveda*, a large number of patients, after taking allopathic treatment for long durations, are coming to the *Ayurveda* hospitals and find very good relief. It can be concluded that severe osteoarthritis may be managed with *Ayurvedic* intervention and use of *baahyaparimaarjana chikitsa* requires to be exploited to a greater extent owing to its higher safety and efficacy profile.

### Introduction

Knee osteoarthritis (OA) is the most common type of arthritis and is a major cause of disability which reduced the quality of life<sup>1</sup>. The clinical features of *Sandhigatavata* is described in various *Ayurvedic* ancient text which is characterized by *shula* (joint pain), *shotha* (swelling), *prasaarana-aakunchanayo pravruttischa vedana* (painful joint movement) and *Vatapurnadritisparsa* (coarse crepitation), resembles with Osteoarthritis<sup>2,3,4</sup>. Main causative factors responsible for *Sandhigata Vata* are *Ruksha aahara*, *Atimaithuna*, *Ativyayama* (excessive exercise/work), *Sheeta bhojana* (cold food/drinks), *Dhatukshaya* and *Roga Atikarshana*<sup>5,6</sup>. This condition closely resembles with knee osteoarthritis. Osteoarthritis is the most common form of arthritis. It is strongly associated with ageing, and is a major cause of disability in older people<sup>7</sup>. According to modern science loss of estrogen during menopause increase the woman risk of getting osteoarthritis<sup>8</sup>. Osteoarthritis is degenerative in nature. It is characterized by progressive disintegration of articular cartilage, formation of new bone in the floor of the cartilage lesions (eburnation) and at the joint margins (osteophytes), and leads to chronic disability at older ages<sup>9</sup>. India is expected to be the chronic disease capital with 60 million people with arthritis by 2025. Currently in OA affected persons, 80% are having some movement limitation and 20% are unable to perform major activities of daily living<sup>10</sup>. It has been postulated that age, gender, body weight, repetitive trauma and genetic factors are the risk factors which play an important role in the manifestation of OA<sup>11</sup>. Treatment options available for *sandhigata vata* are *snehana* (oleation), *swedan* (sudation), *upanaha* (poultice) and *lepa* (topical application)<sup>12</sup>. *Janu Sandhigata Vata* is an *Asthi-Sandhigata Vyadhi*, where there is *kshaya* of *Asthi Dhatu* due to insufficient supply of *Poshaka Rasa*<sup>13</sup>. The line of treatment for *sandhivata* is mainly focused on the alleviation of *vata dosha*. Vitiated *vata dosha* can be best treated with the use of oil<sup>14</sup>. Use of *snehana* with *swedana* over the affected part is also advised in the treatment of *vatavyadhi* which alleviates pain, stiffness and improves flexibility<sup>15</sup>.

### **Janu basti**

It is a specialized procedure in *ayurveda*, especially indicated for *janu sandhigata vata*. There is no direct reference and description of *janu basti* in classical *ayurvedic* texts. It is like a supportive *ayurvedic* therapy. *Janu basti* can be considered as *bahirparimarjana chikitsa*<sup>16</sup> as it is a type of *bhya snehana* and *swedana* (external oil application and sudation). In different opinion, *janu basti* is also considered as *snigdha sweda*. Different types of medicated oils are used in *janu basti* according to the disease. *Mahanarayana taila* is a well known *ayurvedic* formulation that has been indicated in the treatment of different types of *vatavyadhi*<sup>17</sup>. Thus *janu basti* with *mahanarayana taila* has been taken for the present case study.

### **Case Report**

A 61 year old male patient came to *panchakarma* OPD of Dayanand Ayurvedic College, Jalandhar, with the complaints of *Sandhi shoola* i.e. severe pain and swelling over both knee joints & difficulty in walking since 3 years. The patient was taking allopathic treatment, but did not get significant relief. He was being prescribed NSAIDS, and was advised to get knee replacement done by orthopaedic surgeons. Examination of the patient revealed *Sandhi shotha* (swelling) around both knee joints, Tenderness 2+, *Vatapurnadritisparsa* (audible crepitus) in both knee joints. The extension and flexion movements at both the knee joints were restricted, and the movements were limited to 105° for flexion and extension was limited to 35°. Patient was underweight, had slight pallor, vitals: Pulse rate 74/min, regular; Blood pressure was 122/70 mm of Hg. X-ray of the joints revealed joint space reduction in both the knee joint, more so in the medial compartment in right knee joint. On the basis of the clinical features and radiological findings, the diagnosis of Osteoarthritis was established. In consideration with the findings of clinical examination & investigations following treatment was given as table no. 1.

**Table No. 1: Treatment plan**

Sr.No.	Treatment	Dose	Duration
1	Cap Ayucal P	250 mg BD with milk after meals	30 days
2	Cap Shallaki	400 mg BD After meals	30 days
3	Panchtikta Ghrita Guggul	1 gm thrice a day after meals	30 days
4	Janu Basti		15 days

Each capsule of Ayucal P contains *praval pishti* 250 mg. Each capsule of *Shallaki* contains extract of *Shallaki* 400 mg. *Panchtikta Ghrita Guggul* was according the reference of *Bhaishajya Ratnavali*<sup>18</sup>.

### **Janu basti:**

#### **Materials Required:**

For the present study, the following materials are required for each therapy session-

1. *Masha* (black gram) flour – 1 kg
2. *Mahanarayana taila* – 500ml
3. *Dashmoola kwath* – 2 litres (for *nadi swedana*),
4. Spatula – 01
5. Small piece of sponge – 01
6. Water – as per requirement
7. *Nadi swedana yantra* (Local steam apparatus) – 01

### **Method**

Procedure of *janu basti* – Firstly, *masha pishti* is prepared by adding sufficient quantity of water. Then, patient is asked to lie supine on the table with extended knee joint. Knee joint is properly exposed and gentle *abhyanga* is done over the lower limbs. After this, *masha pishti* is applied as a circular boundary wall with height of 4 *angula* over the knee joint. This circular boundary of *masha pishti* is allowed to settle for 5-10 min. This is known as *basti yantra*. Heated *mahanarayana taila* is poured in the *basti yantra* up to the

level of 2 *angula* by using small piece of cotton. The temperature of the oil should be such that it can be well tolerated by the patient. As the oil starts cooling with time, it should be replaced with warm oil to maintain the temperature. Precaution should be taken for any oil leakage from *basti yantra*. This procedure is carried out for 30 minutes. After this, oil is drained out from the *basti yantra* and boundary wall of *masha pisti* is removed.

Gentle *abhyanga* was done over the knee joint after *Janu basti*. After this, *nadi swedana* with *dashmoola kwatha* over the knee joint is given to the patient 15 minutes.

## OBSERVATION & RESULT

**Table no. 3 - Assessment on Day 1, 15 & 30**

Sr No	Assessment Parameter	Day 1	Day 15	Day 30
1.	Haemoglobin	11.1 gm/dl	11.2 gm/dl	11.1 gm/dl
2.	ESR (Fall in 1 <sup>st</sup> hour)	42 mm	38	26
3.	<i>Vatapurnadritisparsa</i>	Audible crepitus	Palpable crepitus	Mild Palpable crepitus
4.	<i>Shotha</i>	Moderate	Mild	Absent
5.	<i>Sandhi shoola</i>	Severe	Mild	Mild
6.	<i>Prasaranakkunchana pravrtti savedana</i>	Prevent complete flexion	Pain with winching of face	Pain without winching of face
7.	Walking Distance	50 Meters	75 Meters	800 Meters

After treatment with *Janu basti* for 15 days and with medicines for 1 month, patient reported very good relief in all the symptoms.

## Discussion

Tab Ayucal P contains *praval pishti*, which is a natural source of organic calcium. Calcium is the fifth most abundant element in the body. Calcium is an important mineral component of our diet. Calcium supplementation can play a valuable role in bone health throughout the lifecycle. An adequate calcium intake through proper selection of calcium salt is therefore only one of many measures to ensure a healthy skeleton<sup>19</sup>.

*Shallaki* possesses *tikta* (bitter), *madhura* (sweet) and *kashaya* (astringent) *rasa* (taste); *guna* (quality) of *Shallaki* is *ruksha* (dry), *laghu* (light) and *tikshna*; *vipaka* (post-digestive effect) is *katu* (pungent); whereas *virya* (strength or effect) is *ushna*. The *doshakarma* is *kapha-pitta shamaka*. *Shallaki* has potent *vata-kaphahara* properties<sup>20,21</sup>. *Shallaki* inhibits the activity of the enzyme 5 lipoxygenase through a non-redox reaction in OA<sup>22</sup>. The key constituents of *Shallaki* are volatile oil (4-8%), acid resin (56-65%) and gum (20-36%). The triterpenoids are the active constituents and are collectively called boswellic acids. The gum resin of *B. serrata* usually contains 43% boswellic acids, which contain a combination of six major constituents, mainly 3 acetyl, 11 keto, boswellic acids (AKBA), which help to preserve the structural integrity of joint cartilage and maintain a healthy immune mediator cascade at a cellular level<sup>23</sup>, which is active against pain and inflammation by inhibiting leukotriene synthesis.

*Panchtikta Ghrita Guggul* is a complex compound containing many herbs and *guggul*. Classical references and clinical suggest it is highly beneficial in the management of *Sandhivata*<sup>24</sup>.

*Janu basti* relieves pain, stiffness and swelling associated with arthritis and other painful conditions, pacifies the morbidity of *Vata* in the affected joints, muscles and soft tissues. *Janu basti* with *mahanarayana tail* followed by *dashmoola kwath nadi-swedana* is very effective in the management of *janu sahdhigata vata*<sup>25</sup>.

## Conclusion

Osteoarthritis is a very common condition. Advancing age and life style factors contribute in tandem to increase the trouble. Management requires multifactorial approach including lifestyle modifications,

exercises, drugs to relieve pain and inflammation. *Ayurvedic* treatments that include external application of drugs, like *janu basti*, offer advantage of immediate relief and negligible adverse effects. Patient treated and presented as this case study got remarkable relief with *Janu basti* and some common *ayurvedic* drugs. Therefore it can be concluded that use of *baahyaparimarjan chikitsa* (classical external *Ayurvedic* treatment) in the background of accurate diagnosis can cure the patients suffering from osteoarthritis. Being safe, devoid of adverse effects, *ayurvedic* management is the only option to avoid painful intervals, advancement of the disease and repeated use NSAIDs. Delaying of surgical intervention by few years by external *Ayurvedic* treatments is considered as great relief by the patients. Use of external therapies like *Janu basti* offers additional advantage of reducing systemic exposure due to oral use of medications. This study will encourage further research in the field with evidence based methodology.

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