

**AYURVEDIC MANAGEMENT OF POST TRAUMATIC OSTEO-  
ARTHRITIS OF KNEE JOINT- A CASE STUDY****Dr. Ashwini B. Nandagaon<sup>1\*</sup> and Dr. Sanjay Kadlimatti<sup>2</sup>**

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**ABSTRACT**

Post-traumatic osteoarthritis (PTOA) develops secondary to a joint injury and accounts for osteoarthritis. These injuries are often of the lower extremity joints; occur due to trauma or accidents related to athletic or military activities. *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 patients disabled / handicapped. It being a *Vatavyadhi*, located in *Marmasthisandhi* and its occurrence in old age makes it *Kashtasadhya*. *Vata Dosha* plays the 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. having the complaints of Osteoarthritis. Patient was treated with *Janu upanaha* and *Shamanoushadhi* and this treatment has provided better relief in the disease *Sandhigata Vata*.

**KEYWORDS:** *Sandhigata vata*, Post-trauma, Osteoarthritis, *Janu Upanaha*.

**INTRODUCTION**

Osteoarthritis is a chronic, degenerative disorder of unknown cause characterised by gradual loss of articular cartilage. Osteoarthritis, also known as degenerative arthritis, degenerative joint disease, or osteoarthrosis, is a type of joint disease that results from breakdown of joint cartilage and underlying bone. The most common symptoms are joint pain and stiffness.

Initially this usually just occurs after exercise but over time may become constant.<sup>[1]</sup> Sandhigataavata is described under Vatavyadhi in all the Samhita and Sangraha Grantha. In Jaravastha, all Dhatus undergo Kshaya, thus leading to Vataprakopa and making individuals prone to many diseases. Sandhigataavata is one among them.<sup>[2]</sup> One of the reasons for such a Prakopa of Vata is an injury to the joint. Unfortunately, current treatment modalities too often fail to prevent the development of PTOA (*Agantuj sandhivata*).<sup>[3]</sup>

## CASE STUDY

A 44 year old male patient, professor by occupation, visited to the OPD of BLDEA's AVS Ayurved Mahavidyalaya Hospital and Research Centre, Vijayapura, Karnataka, presented with C/O Left Knee Joint pain and swelling since 1 week along with difficulty in sitting on ground, walking and climbing stairs since 1 week. Examination of the knee revealed, Sandhishoth (swelling) around left knee joint, tenderness, associated with audible crepitates in left knee joints. The extension and flexion movements of the left knee joint were restricted with severe pain. Vitals: Pulse rate: 76/min., regular; B.P.: 130/80 mmHg. Temp. : 98.60 F.

**History of present illness:** A 44 years old male patient came to OPD with C/O- pain and swelling in left knee joint since 1 week. He had a history of fall from bike. He consulted an allopathic doctor and had undergone an MRI. MRI (Magnetic resonance imaging) of left knee joint (04.07.2023) revealed, Medial meniscus posterior horn shows grade III tear, medial compartment articular cartilages show early thinning and irregularities, medial plateau of tibia shows contusions at corner, effusion seen, suprapatellar bursa effusion shows plicae. For this Arthroplasty was advised as the patient was not willing he came to our hospital for management.

**Personal history:** Diet – Mixed, Appetite – Good, Bowel - Regular, Clear (1time/day), Bladder – Regular (5-6/day), Sleep – Good, Habits - Nil.

**General examination:** Built - Hypersthenic, Nourishment - Good, Pallor - Absent, Icterus - Absent, Cyanosis - Absent, Clubbing - Absent, Lymphadenopathy - Absent, Oedema - Localized swelling over left knee joint.

**Asthasthan pareeksha**

S. no.	Sthana	Lakshana
1	Nadi	Kaphavataja
2	Mutra	Prakrutha
3	Mala	Prakrutha
4	Jihva	Alipta
5	Shabda	Prakrutha
6	Sparsha	Anushna Sheeta
7	Druk	Prakrutha
8	Akruti	Sthula

**Dashavidha pareeksha**

1) Prakruti – Kapha Vataja

2) Vikruti -

Hetu - Abhighataja, Ativyayama

Dosha - Vata

Dushya - Asthi Sandhi and its avayava like sira, snayu and kandara

Prakruti - Ashukari

Desha - Bhumi - Jangala

Kala - Varsha

Bala - Rogi - Madhyama

Roga - Madhyama.

3) Sara - Madhyama

4) Samhanana - Madhyama

5) Pramana - Pravara

6) Sattva - Madhyama

7) Satmya - Madhyama

8) Aharashakti - Abhyavarana – Madhyama

Jarana - Madhyama

9) Vyayama Shakti - Madhyama

10) Vaya - Madhyama

**Samprapti ghatak**

1) Dosha - Vata dosha

2) Dushya - Asthi Sandhi and its avayava like sira, snayu and kandara

3) Agni - Jatharagni, Dhatvagni

4) Ama - Jatharagni mandya janya ama

- 5) *Srotas* - *Asthivaha*
- 6) *Srotodusti* - *Sanga*
- 7) *Rogamarga* - *Madhyama*
- 8) *Udbhavasthana* - *Pakwashaya*
- 9) *Sancharasthana* - *Rasayani*
- 10) *Vyaktasthana* - *Janu Sandhi*
- 11) *Rogaswabhava* - *Ashukari*
- 12) *Sadhyasadhyata* - *Kruchrasadhya*

### Diagnosis, Assessment and Treatment

Diagnosis of *Agantuja sandhivata* i.e. post traumatic arthritis of knee was made based on history and physical examination of the patient.

Total two assessments were carried out, before the treatment and after treatment i.e., 4 weeks after treatment. To assess the efficacy of treatment 'Knee injury and Osteoarthritis Outcome Score (KOOS)' was used. KOOS is a questionnaire designed to assess the short and long term outcome following knee injury. It is self administered and assesses five outcomes: pain, symptoms, activities of daily living, sport and recreation function, and knee-related quality life. The scores are transformed to a 0-100 scale, with zero representing extreme knee problems and hundred representing no knee problems. KOOS is a likert type of scale with all items having five possible answer options scored from 0 (no problems) to (extreme problems).

### Shamana chikitsa

**Table 1: Bhahya chikitsa from 12/07/2023 to 25/07/2023.**

S. No.	Procedure	Medicine used
1	<i>Sthanika Abhyanka</i>	<i>Murivenna taila</i>
2	<i>Janu Upanaha</i>	<i>Sandhaniya Dasemani's</i> <sup>[4]</sup> along with <i>Asthishrunkala taila</i> <sup>[5]</sup>

**Table 2: Abhyantara chikitsa.**

S. No	Shamanoushadhi	Dose	Anupana
1	<i>Laxadi Guggulu</i>	2BD A/F	Lukewarm water
2	<i>Cap Burcalvin</i>	1BD A/F	Lukewarm water
3	<i>Arjunksheerapaka</i>	40ml BD A/F	Lukewarm water

**Table 3: Efficacy of treatment on Koos.**

Time of assessment	Before treatment	After treatment
Pain	39%	86%
Stiffness	39%	93%
Function in daily activities	50%	84%
Function in sports and recreation	25%	65%
QOL knee related	44%	63%

## DISCUSSION

Sandhigata vata (OA) is included and explained under Vatavyadhi chikitsa. When vata dosha aggravates takes ashraya in sandhipradesha and creates the symptoms like shotha, vedana during Prasarana and akunchana i.e Pain during movements of joints. One of the reasons of such a prakopa of Vata is an injury to the joint, unfortunately current treatment modalities fail to prevent the development of PTOA. Modern treatment for joint injuries includes surgical intervention only which is not sufficient to regenerate normal joint structure. Here comes the role of ayurvedic treatment modalities. *Upanha sweda* is *ekanga sweda* Which is meant to pacify vata dosha Where there is pain and swelling in a localised Area.

Oral medications help in fast bone recovery after a fracture. In addition to that, they provide relief from pain due to Vatahara, sandhaniya property. *Laxadi Guggulu*<sup>[6]</sup> is mentioned in Bhagnaroga Adhikara and has excellent anti-inflammatory and analgesic properties. It's useful to promote strength of bones and joints. It fastens the healing process in bone fracture. *Arjunksheerapaka*<sup>[7]</sup> - Arjun has kashaya and tikta rasa, and when given in the form of ksheerapaka, madhura rasa is also incorporated into this, and these rasas predominantly have prithvi, agni, vayu mahabhuta which helps in the formation of asthi dhatu. This tikta rasa has the ability to reach upto the asthi dhatu and produces kharatva and ksheera helps to neutralize the excessive effect of tikta rasa and which is vata shamaka and asthi poshana.<sup>[8]</sup> *Arjuna* is bhagna Sandhanakara said by *Vrindhamadhava*. The Ksheera which is said to be a rich source of calcium, proteins and also jeevaniya, sandhaniya karma of milk. The synergetic action of Arjun and ksheera plays an important role in the healing process of fracture due to the guna and karma of both the drugs. *Cap Burcalvin* holds good for reducing swelling, inflammation and pain.

## CONCLUSION

From the above case, we can conclude that Post- Traumatic Osteoarthritis i.e, *Sandhigata vata* can be successfully treated with Ayurvedic line of management. Ayurvedic treatment

helps to relieve symptoms of disease and also an attempt to provide safe and effective treatment to the patient. Further study Should be conducted on a large number of patients to understand the better effect of treatment.

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