

Management of Janu Sandhigata Vata with Navaprasrutika Basti - A Case Study

Case Report

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Abstract

SandhigataVata may be a disease of the elderly persons. Life style, obesity, trauma and diet deficient in calcium are a number of the risk/causative factors. *Rooksha Aahar* and *Ativyaama* cause vitiation of *Vata*. It mainly affects weight-bearing joints of the body specially knee, hip, lumbar spine. Being commonest variety of articular disorders, *SandhigataVata* poses a large hindrance in day-to-day activities of the sufferer like walking, dressing and bathing etc. The common presentation of the disease is *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 during this case study, a 36-year-old patient with *Janu SandhigataVata* came to Parul Ayurved Hospital with complaints of Right knee joint pain, crackling sound in joints since 2 months. Due to long standing and straining, the patient had these symptoms. This Indoor patient was treated with *Abhyanga* at *Nabhi*, *Parshva*, *Prushtha* & *Ubhaya pada Pradesh* and *Anuvasana* with *Murcchit Tila Taila* and *Navaprasrutik Basti* for 10 days. The patient responded well to these *Ayurvedic* treatments and got relief from major symptoms.

Key Words: *SandhigataVata*, *Abhyanga*, *Anuvasan Basti*, *Navaprasrutika Basti*.

Introduction

Any disease starts with an absence of proper nutrients or a scarcity of food supply to individual tissues. Nutrients don't enter the target site because of channel blockage- *Srotovarodha*. This induces disease at the site of *Strotovairagunya*. *Janu SandhigataVata* (Osteoarthritis) is *Asthi-Sandhigata Vyadhi*, there is *Kshaya of Asthi Dhatu* because of inadequate supply of *Poshaka Rasa*. In *Ayurveda*, Osteoarthritis is related to *SandhigataVata*. *Janu SandhigataVata* disorder has been described separately in *Charak Samhita*. *Acharya Charaka* explained it under the *VataVyadhi* chapter. *Charaka* identified the illness with symptoms like *Shotha*, *Akunchana Prasaranae Vedana*, *Vatapurna dritiSparsha* (1). *Acharya Sushruta* defined as *Shoola (pain)*, *Shotha (swelling)*, *Janu Sandhigata*(decreasing of hinge joint movements) as an indication of *SandhigataVata* (2) due to *VataPrakopa* arising within the joints and giving rise to symptoms like swelling within the joints (3).

Case Report

A 36 years old female patient residing in Vadodara city visited Panchakarma-OPD (OPD NO – 19034225) of Parul Ayurved Hospital, Vadodara with chief complaints of pain in right knee joint since two months. Before 2 months patient was apparently

healthy, later she had gradual appearance of above-mentioned symptoms and these symptoms lead to difficulty in walking and standing. So patient came to Parul Ayurved Hospital for further management. Patient was admitted in the Panchakarma IPD ward of Parul Ayurved Hospital, for better treatment.

- **History of Past illness:** No clinical case of Hypertension, Diabetes or Hypothyroidism.
- **On Examinations** of vitals are Temperature - 98.60 F, Pulse rate – 74/min, Respiratory rate-20/min, Heart rate- 74/min, Blood pressure- 112/70 mm of Hg.
- **Rogi Pariksha:-** Patients is having *Vatapitta Prakriti*, predominantly *Vatapitta Dosha* vitiation is there with involvement of *Rasa*, *asthi*, *majja*, *snayu Dusti*, moderate *Agribala* with *niram jivha* and *Madhyam Vyayama Shakti*.
- **Systemic Examination:** While examining respiratory system the shape and size of chest are normal, Air entry bilaterally equal- clear no Crepitations. While examining Cardiovascular System S1 S2 heard, No murmur and abnormal sounds heard. While examining Central Nervous System Patient was conscious, well oriented, memory was good.
- **Gastro Intestinal Tract:** Abdomen is soft, no tenderness/Pain was observed.
- **Pathology Report:**
 - Hb%: -11.9gms%
 - RBS: -121 mg/dl
 - Platelet Count: 2.1 lakhs cells/cu mm
 - Urine Routine: yellow & hazy
 - PH- 6.0, Specific Gravity – 1.030

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• Radiology Finding

- X-Ray – Changes of OA Grade – I

Table 1: RogiPariksha

1	Prakruti	Vata Pitta
2	Sarata	Madhyam
3	Sanhananataha	Madhyam
4	Pramanata	Ht-151cm., Wt-59kg, BMI- 25.87
5	Satwataha	Madhyam
6	Satmytaha	Madhyam
7	Ahara Shakti	Madhyam
8	Vyayamataha	Madhyam
9	Vaya	Madhyam
10	Jihwa	Nirama
11	Deshataha	Sadharana

Table 2: Systemic Examination-Locomotory System

Symptoms	Right Knee Joint	Left Knee Joint
Swelling	-	-
Pain	++	-
Creptus	+	-
Temperature	-	-

- Indicates no symptom; + indicates mild symptoms; ++ indicates moderate symptoms; +++ indicates severe symptoms

Table 3: Samprapti Gataka

Dosha	VataPradhana
Dushya	Asthi, Mamsa, Snayu
Srotas	Asthivaha
Ama	Niram
Udbhavasthana	Pakvashya
Vyaktisthana	JanuPradesh

Table 5: Kala Basti Schedule

DAY1	DAY2	DAY3	DAY4	DAY5	DAY6	DAY7	DAY8	DAY9	DAY10
AB	NB	NB	NB	NB	NB	NB	AB	AB	AB
	AB	AB	AB	AB	AB	AB			

*AB -AnuvasanBasti; *NB-NavaprasrutikBasti

•Diet & Regimen - Laghu, Supachhya Aahar

Table 6: Chikitsa Protocol

Date	Shodhana
31/12/2019	<ol style="list-style-type: none"> 1. Abhyanga with Nabhi, Parshva, Prastha, Ubhayapada with MurchhitaTilaTaila [10 min] followed by NadiSweda [3 min] 2. Anuvashana Bastiwith MurchhitaTilaTaila -120 ml 3. Anuvashana Basti Dana Kala- 2:05 PM 4. Pratyagamana Kala- 8:11 PM
01/01/2020	<ol style="list-style-type: none"> 1. Abhyanga with Nabhi,Parshva, Prastha, UbhayapadaPradese with MurchhitaTilaTaila [10 min] followed by NadiSweda [3 min] 2. Navaprasrutika Basti – as per Schedule 3. Navaprasrutika Basti Dana Kala – 9:01 AM 4. Pratyagamana Kala- 9:12 AM 5. Anuvashana Basti with Murchhita TilaTaila -120 ml 6. Anuvashana Basti Dana Kala- 2:30 PM 7. Pratyagamana Kala- 6:00 PM
02/01/2020	<ol style="list-style-type: none"> 1. Abhyanga with Nabhi, Parshva, Prastha, Ubhayapada with MurchhitaTilaTaila [10 min] followed by NadiSweda [3 min] 2. Navaprasrutika Basti – as per Schedule 3. Navaprasrutika Basti Dana Kala – 9:03 AM 4. Pratyagamana Kala- 9:18 AM 5. Anuvashana Basti with MurchhitaTilaTaila -120 ml 6. Anuvashana Basti Dana Kala- 2:16 PM 7. Pratyagamana Kala- 8:30 PM

Nidana

- **Provisional Diagnosis** – Janu sandhigataVata, Ama Vata, Janu Shoola
- **Differential Diagnosis** -Janu sandhigataVata, Ama Vata, Janu Shoola
- **Diagnosis** - Janu sandhigataVata
- **Prognosis** –Sadhya

Treatment (Panchakarma)

- Abhyanga at Nabhi, Parshva, Prastha, Ubhayapada with Murchhita TilaTaila [10 min].
- Nadi Sweda [3min]
- Anuvashana Basti with Murchhita TilaTaila– [120 ml].
- Navaprasrutika Basti – As per Schedule.

Table 4: Navaprasrutik Basti Dravyas (4)

Dravya	Quantity
Madhu	96 ml
MoorchitGoghrita	96 ml
MoorchitaTilaTaila	192 ml
BrihatPanchamulakwatha	480 ml
Total quantity	864 ml

Method of administration

- Form: Anuvashana Basti & Navaprasrutika Basti
- Dose: AB-120 ml. and NB-864 ml.
- Duration of therapy: For 10days
- Follow up: After 20th days.

03/01/2020	<ol style="list-style-type: none"> 1. <i>Abhyanga with Nabhi, Parshva, Prastha, Ubhayapada with MurchhitaTilaTaila</i> [10 min] followed by <i>NadiSweda</i> [3 min] 2. <i>Navaprasrutika Basti</i> – as per Schedule 3. <i>Navaprasrutika Basti Dana Kala</i> – 9:16 AM 4. <i>Pratyagamana Kala</i>- 9:24 AM 5. <i>Anuvashana Basti with MurchhitaTilaTaila</i> -120 ml 6. <i>Anuvashana Basti Dana Kala</i>- 2:16 PM 7. <i>Pratyagamana Kala</i>- 8:32 PM
04/01/2020	<ol style="list-style-type: none"> 1. <i>Abhyanga with Nabhi, Parshva, Prastha, Ubhayapada with MurchhitaTilaTaila</i> [10 min] followed by <i>NadiSweda</i> [3 min] 2. <i>Navaprasrutika Basti</i> – as per Schedule 3. <i>Navaprasrutika Basti Dana Kala</i> – 9:12 AM 4. <i>Pratyagamana Kala</i>- 9:30 AM 5. <i>Anuvashana Basti with MurchhitaTilaTaila</i> -120 ml 6. <i>Anuvashana Basti Dana Kala</i>- 2:12 PM 7. <i>Pratyagamana Kala</i>- 8:32 PM
05/01/2020	<ol style="list-style-type: none"> 1. <i>Abhyanga with Nabhi, Parshva, Prastha, Ubhayapada with MurchhitaTilaTaila</i> [10 min] followed by <i>NadiSweda</i> [3 min] 2. <i>Navaprasrutika Basti</i> – as per Schedule 3. <i>Navaprasrutika Basti Dana Kala</i> – 9:02 AM 4. <i>Pratyagamana Kala</i>- 9:20 AM 5. <i>Anuvashana Basti with MurchhitaTilaTaila</i> -120 ml 6. <i>Anuvashana Basti Dana Kala</i>- 2:02 PM 7. <i>Pratyagamana Kala</i>- 9:00 PM
06/01/2020	<ol style="list-style-type: none"> 1. <i>Abhyanga with Nabhi, Parshva, Prastha, Ubhayapada with MurchhitaTilaTaila</i> [10 min] followed by <i>NadiSweda</i> [3 min] 2. <i>Navaprasrutika Basti</i> – as per Schedule 3. <i>Navaprasrutika Basti Dana Kala</i> – 9:05 AM 4. <i>Pratyagamana Kala</i>- 9:19 AM 5. <i>Anuvashana Basti with MurchhitaTilaTaila</i> -120 ml 6. <i>Anuvashana Basti Dana Kala</i>- 2:01 PM 7. <i>Pratyagamana Kala</i>- 9:02 PM
07/01/2020	<ol style="list-style-type: none"> 1. <i>Abhyanga with Nabhi, Parshva, Prastha, Ubhayapada with MurchhitaTilaTaila</i> [10 min] followed by <i>NadiSweda</i> [3 min] 2. <i>Anuvashana Basti with MurchhitaTilaTaila</i> -120 ml 3. <i>Anuvashana Basti Dana Kala</i>- 2:05 PM 4. <i>Pratyagamana Kala</i>- 8:56 PM
08/01/2020	<ol style="list-style-type: none"> 1. <i>Abhyanga with Nabhi, Parshva, Prastha, Ubhayapada with MurchhitaTilaTaila</i> [10 min] followed by <i>NadiSweda</i> [3 min] 2. <i>Anuvashana Basti with MurchhitaTilaTaila</i> -120 ml 3. <i>Anuvashana Basti Dana Kala</i>- 2:02 PM 4. <i>Pratyagamana Kala</i>- 8:32 PM
09/01/2020	<ol style="list-style-type: none"> 1. <i>Abhyanga with Nabhi, Parshva, Prastha, Ubhayapada with MurchhitaTilaTaila</i> [10 min] followed by <i>NadiSweda</i> [3 min] 2. <i>Anuvashana Basti with MurchhitaTilaTaila</i> -120 ml 3. <i>Anuvashana Basti Dana Kala</i>- 2:20 PM 4. <i>Pratyagamana Kala</i>- 9:00 PM
10/01/2020 Shamana	<ol style="list-style-type: none"> 1. Tab. <i>YogarajGuggulu</i> 2-0-2 with lukewarm water for 20 days After <i>Basti</i> 2. <i>Supachhya Ahara</i>

Observations

Patients underwent the above-mentioned medication from 31/12/2020 to 09/01/2021. Patient was assessed before and after treatment.

Table 7: Assessment of symptoms

Assessment criteria	Before treatment	After treatment	During Follow-up
Pain	Moderate	Occasional pain	No pain
Inflammation	-	-	-
Tenderness	No Tenderness	No tenderness	No tenderness
Crepitation	Moderate Crepitation	Mild Crepitation	No Crepitation

SandhigataVata is one of the *VataVyadhi* mentioned in all of *Samhita and Sangraha Granthas*. In *Ayurvedic* view, *Sandhis* are the seat of *Slesamaka Kapha*. In *SandhigataVata*, *Vata dosha Prakopa* exists in *kaphaSthana*. Hence, it causes *Ruksha guna Vriddhi and Kapha Kshaya*. *Vata and Kapha are Sheeta in*

Guna. Hence, the drug must be *Ushna, Brimhana and Anulomana*.

Discussion

Sandhivata could be a disorder dominated by pain affecting the *Sandhi* (joint). It is caused by morbid

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Vata Dosha. *Kapha Dosha* may be involved within the clinical presentation. The vitiated *Dosha* or *Doshas* afflict the *Mamsa*, *Asthi* and *Snayu*. It is more evident in *Asthi Dhatu* with which *Vayu* has *Ashraya-Ashrayee Bhava Sambhanda*(5,6,7).

As far as *Basti* goes, it is thought to be an ultimate solution for eradication of *Vata Dosha* and *Vata* vitiation. Moreover, it also has action on the vitiated *Pitta*, *Kapha* and *Rakta*. According to Ayurveda, the *Virya* of ingredients utilized in the *Basti* gets absorbed and then through general circulation reaches the positioning of lesion and relieves the disease (8). That is why *Acharya Sushruta* has mentioned that by using the various ingredients, *Basti* can cure *Paittika*, *Kaphaja*, *Raktaja*, *Sansargaja* and *Sannipatika* disorders also (9).

In *kala basti*, total 16 *basti* are given. During this procedure, first *anuvasana basti* was given and followed by 6 *niruha* and *anuvasana basti* given alternatively, and at the end again three *anuvasna basti* were given (10).

Murchita tila taila is indicated in *vatavyadhi* and *Bruhat panchamoola kwatha* is beneficial for *niruhabasti* in *vatavyadhi*. *Navaprasrutikbasti* has been classically indicated in vitiated *Vata* condition and especially in *Vata* vitiated in *Janu pradasha* and hence the drug was chosen for present study (11).

Ayurveda gives emphasis on various *karmas* in treating the foresaid ailment, amongst which *Basti Chikitsa* is the most effective for *Vatadosha*, which is the main culprit in *sandhivata*. All symptoms including joint deformity are mainly due to *Vata* vitiation. Drugs used here for *Basti Karma* mainly work on *Vatadosha* and regulates *Vatadosha* activity everywhere in the body. Qualities of *Bruhat panchamoola* are *Shothahara* (anti-inflammatory), *Vatahara* (nullifies *vatadosha*), *ushna* (hot) etc (12). Some Studies also reported anti inflammatory, analgesic (13), and anti-pyretic (14), effect of *Bruhatpanchamoola*.

Table 8: Action of Bruhatapanchamoola

Sr.No	Name of the Drug	BOTANICAL NAME OF THE DRUG	Rasa	Guna	Virya	Vipaka	Karma
1	<i>Patala</i>	<i>Stereospermum suaveolens</i> DC.	<i>Tikta, Kashaya</i>	<i>Laghu, ruksha</i>	<i>Anusna</i>	<i>Katu</i>	<i>Tridoshara, sothahara,</i>
2	<i>Bilva</i>	<i>Aegle marmelos</i> Corr.	<i>Katu, tikta, Kashaya</i>	<i>Grahi, snigdha, tikshana</i>	<i>Ushna</i>	<i>Katu</i>	<i>Shothahara, Arshoghana, Shirovirechan, asthagnopaga</i>
3	<i>Gambhari</i>	<i>Gmelina arborea</i> Linn.	<i>Tikta, kashya, Madhur</i>	<i>Guru</i>	<i>Ushna</i>	<i>Katu</i>	<i>Dahaprashmana, Shothaharavirechnopaga</i>
4	<i>Shyonaka</i>	<i>Oroxylum indicum</i> Vent.	<i>Madhur, tikta, Kashaya</i>	<i>Laghu, ruksha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kaphavatashamak, Shothahara, vedanasthapana</i>
5	<i>Agnimantha</i>	<i>Premna mucronata</i> Roxb.	<i>Tikta Katu Kshay Madhur</i>	<i>Ruksha Laghu</i>	<i>Ushna</i>	<i>Katu</i>	<i>KaphavataShamak Vedanasthapana Shothahara</i>

Table 9: Symptoms of osteoarthritis may be correlated to SandhigataVata

<i>SandhigataVata</i>	Osteoarthritis
<i>Sandhi shool</i>	Pain within the joints
<i>Aatopa</i>	Crepitations within the joints
<i>Vedanayuktasandhipravriti</i>	Painful movements within the joints
<i>Sandhi sthambha</i>	Stiffness within the joints
<i>Shotha</i>	Swelling of joints

Action of Basti through enteric system (ENS)

This action is explained in modern parlance by the objection of active principles of drug on receptors within the GI tract associated with the enteric nervous system. ENS (Enteric Nervous System) is substantial group of neurons. It is capable of Autonomous reflex without the influence of central system. Over 500 million neurons are present within the ENS (Enteric Nervous System) so it is called “second brain” (15). There are many similarities between CNS and ENS regarding cellular structure, neuropeptide secretion and specific functions and studies have shown that there is

great influence of CNS and ENS on each other (16). *Basti* may act over the receptors of the ENS to stimulate the CNS causing secretion of required hormones or other chemicals. Hence the effect of *Basti* may additionally be related to “Touch & Go Theory” causing activation of ENS receptors. It is recognised that the enteric system nervosum encompasses has a unique ability to mediate reflex activity independently of input from the brain or neural structure (17). This ability implies that the ENS contains sensory receptors, primary afferent neurones, interneurons and motor neurones. The events that are controlled partly by the ENS are multiple and include motor activity, secretion, absorption, blood flow, and interaction with other organs like the gall bladder or pancreas (18). The extensive regulatory activities of the ENS are made possible by the presence and abundance of various varieties of neurones within the wall of the intestines. Morphological, electrophysiological, and pharmacological studies have revealed a considerable substantial diversity of neurones within the ENS (19). It produces a large range of hormones and around 40

neurotransmitters of the identical classes as those found within the brain. In fact, neurons within the gut are thought to get the maximum amount dopamine as those within the head. Intriguingly, about 95 per cent of the serotonin present within the body at any time is within the ENS. Serotonin produced within the gut gets into the blood, where it is involved in repairing damaged cells within the liver and lungs. It is also important for normal development of the gut, as well as regulating bone density (20).

Purishadhara Kala is nothing but *Asthidhara Kala*. In the management of *Asthivaha Srotodushti, Basti* is alluded to as an option of treatment since *Basti Dravya* will function directly on *Pusrishadhara Kala* and is required to nourish *Asthidhara Kala* and *Asthidhat* specifically (21).

The *Basti* treatment was chosen for its *Vata* pacifying property.

The purpose of the administration of *Anuvashana* or *Navaprasrutik Basti* was to purify the distribution channels (*Srotosodhaka*). It improves the straightforward and fast absorption of the given drug and helps it to attain its target (22).

Anuvasana and *Navaprasrutik Basti* schedules are selected for treatment as this disorder is a component of *Madhyama Roga Marga* with *Gambheera Dhatu* i.e. deeper tissue involvement.

Anuvasan Basti was performed for the *Poshana* of *Asthi, Sandhi* and its surrounding structures. *Navaprasrutik Basti* is required to supply strength, compactness, flexibility to the joints of the knee and reinforce *Snayu* (ligament) and *Kandara*. In this way, the drug will enter the target tissue and that we can have a direct and long-term effect (23).

Conclusion

We can conclude that Panchakarma together with oral medication is effective in management of *Janu Sandhigata Vata*. *Janu Sandhigata Vata* has been seen as an enormous issue in society for an extended time and therefore the risk of incidence is probably going to rise over the approaching years because of this lifestyle. ***Murchhita Tila Taila Anuvashana Basti and Navaprasrutik Basti has been found to be a powerful Pachaka.*** And no adverse effects were reported before or after the therapy. During this analysis, we have concluded that *Vatahara Ahara Vihara, Ushna, Brihana Dravyas* in *basti* gave relief to the patient.

The patient was treated with *Anuvashana* and *Navaprasrutik Basti*. Schedule from 31/12/2020 to 09/01/2021 and substantial positive change in signs and symptoms were observed. As very promising findings are obtained during this case study, this may be the main target of additional clinical trials and can offer a chance for debate within the future.

Source of support: Nil

Conflict of interest: None Declared

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