



Review Article

INTEGRATIVE APPROACH IN THE MANAGEMENT OF JANUSANDHIVATA W.S.R. TO OSTEOARTHRITIS

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ABSTRACT

Janusandhivata is a *Vataj* disorder in which *Vata* resides in *Janu sandhi (Vimarga gaman)* and produces various signs and symptoms according to its *Gunas*. In modern sciences *Janusandhivata* is correlated with osteoarthritis. In the present study integrative measures like allopathy medicines, Ayurvedic medicines and *Karmas*, yoga, naturopathy and exercises are studied for the effective relief of symptoms of *Janu sandhigata vata* i.e., OA. Integrative measures are studied to provide effective and fast relief to the patient. Modern treatment provides instant relief while on the other hand Ayurveda heals by curing the disease from root and is considered *Apunarbhav chikitsa* which means it prevents recurrence of the disease. Other measures aid in achieving the ultimate goal of cure from the disease.

INTRODUCTION

In *Janusandhivata* as it is clear the main *Dosha* is *Prakupit vata*, all the activities and food materials which cause *Vata* vitiation causes bony inflammation and pain of knee joint. In modern science, osteo means bone and arthritis means painful inflammation and stiffness of joints. In OA, the protective cartilage on bone ends wears down over a period of time. The prevalence of OA rises progressively with age, such as that by 65 years. The knee and hip are the principal large joints involved, affecting 10-25% of those aged over 65 years. The incidence of OA in India is as high as 12%. It is estimated that four out of hundred people are affected by it. Almost all persons by age 40 have some pathological changes in weight bearing joints; 25% females and 16% males have symptomatic osteoarthritis.^[1] Allopathic treatment provides instant relief but also causes other side effects, Ayurveda treatment is time taking but it provides long lasting effects.

On the other hand yoga, naturopathy and exercises all are chemical free procedures which are proven effective in such cases, but again all of them require a lot of time. So because of the presence of such lacunas in each *Pathy*, their combined study is necessary on patients.

Causes or *Nidana*


Ayurveda [2,3]	Modern science
<i>Vata prakop nidana</i> like usage of cold and dry materials, <i>Laghu anna sevana</i> , <i>Ratri jagran</i> etc.	Bone misalignment by pathogenic or congenital cause
Inappropriate use of <i>Panchkarma</i>	Mechanical injury
Excessive walking, exercise, <i>Divaswapna</i> , anger, fear etc	Excessive body weight
Injury to vital organs, trauma, holding of natural urges, <i>Aama dosha</i>	Loss of muscle strength supporting the joint
<i>Dhatu kshaya</i> and <i>Vata marga avrodha</i>	Peripheral nerve impairment etc.

***Samprapti* or Pathogenesis**

Nidan sevana causes *Vata prakopa* and this *Prakupit vata* moves all over the body in a violent manner (*Prasara*). This vitiated *Vata* gets lodged in weak *Dhatu* (tissue here knee joint) and imparts

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pathological changes, damages the tissue and initiates a disease process (*Sthana sanshraya*). *Asthi dhatu* and *Vata* have *Ashraya- ashrayi bhava*. Thus pathological increase or decrease of *Vata* has more effect on *Asthi dhatu* than any other *Dhatu*. *Dhatu kshaya* is also a major cause of *Vata* aggravation. When vitiated *Vata* damages the bones and joints, the signs and symptoms of *Sandhivata* like *Shoola*, *Atopa* and *Shotha* are caused.^[4]

The pathologic underpinnings of this disease are attributing to the aberration of *Vata and Kapha Dosh*, affecting the *Asthi* (bone), *Sandhi* (joint), *Mamsa* (muscle), and *Snayu* (ligament).

Pathogenesis of OA According to Modern Aspect

The pathogenesis of OA involves a degradation of cartilage and remodelling of bone due to an active response of chondrocytes in the articular cartilage and the inflammatory cells in the surrounding tissues.

Signs and Symptoms

According to Ayurveda, signs and symptoms are-*Sandhi shoola*, *Atopa*, *Vata purna druti sparsha* (knee joint on touch feels like a bag full of air), *Shotha*, *prasaran akunchana vedna* i.e., difficulty in moving the joint.^[5,6]

According to Modern Science^[7]

Restricted movements due to capsular thickening, deformity, palpable and audible coarse crepitus due to rough articular surfaces, joint tenderness, bony swelling, muscle weakness etc.

Integrative Treatment Modalities

Treatment of *Janusandhi vata* (OA) involves a wide array of modules. Each *Pathy* has a lot of ways for its treatment.

In Ayurveda *Chikitsa* is of two types: *Shamana* and *Shodhana*.

Shodhana Chikitsa

Abhyanga or massage by *Til Taila*, *Ksheerabala Taila*, *Mahamasha Taila*, *Dhanvantram Taila*, *Pinda Taila*, *Mahanarayan Taila*, *Sahachardi Taila*, *Yashtimadhu Taila* etc.

Swedana or Perspiration: *Pinda Sweda*, *Nadi Sweda*, *Churna Pinda Sweda*, *Shastika Shali Pinda Sweda*: *Swedan* activates the cells and flush the toxins, Improves cellular metabolism and enables free circulation in joints, removes pain, stiffness and swelling and rejuvenates the joints.

Avgaha: means submerged. Patient is made to sit in a tub of herbal medicated warm water for about 20 minutes. The level of water is upto naval or neck.

Dhara is also known as *Parishek sweda*. In this warm *Kwath* is sprinkled or showered on the body which eliminates the vitiated *Vata*.

Janu vasti: In this a circle or a compartment is made of black gram around the knee and warm medicated oils

are poured in it for a fixed time period.

Sandhi picchu means padding or sponging. In this procedure a sterile cotton pad dipped in medicated oil is placed over the painful knee joint.

Sandhi lepa by *Rasnadi churna*, *Dashanga lepa* etc.

Upanaha: In this treatment module, a herbal mixture or paste is applied on the knee joint and is covered and left undisturbed for about 12 hrs. It is then washed with lukewarm water.

Snehapana: patient is made to drink medicated oils and ghee in fixed amount. *Sneha* is opposite to the *Ruksha* and *Khara guna* of *Vata* which causes the pain and inflammation. Medicated *Sneha* which generally used are *Guggulutiktakam Ghrit*, *Rasnadi Ghrit*, *Bala taila*, *Mahamasha taila* etc.

Virechana: It is done after *Samyak snehan* and *Swedan*. *Virechana* means therapeutic purgation. It removes the morbid *Doshas* especially *Vata* and *Pitta* out from the body thus providing relief.

Vasti is considered the best treatment for vitiated *Vata*. It not only eliminates the vitiated *Vata* but also clears its passage (*Marga avaranhar*). It also strengthens the joints and muscles and prevents disease recurrence. *Asthapana vasti* like that of *Erandamuladi khsaya vasti*, *Dashmula kshaya vasti*, *Dashmool ksheer vasti*, *Mustadi yapana vasti* are generally given. *Anuvasan vasti* in alternation with *Asthapana vasti* is given.

Jalokavcharan (Leech Therapy): *Jalauka Charana* is done in *Pitta pradhan* disorders. This therapy relieves the pain through antinociceptive effects and counter irritation.^[8] The leech saliva have pharmacologically active biological substances such as hirudin and hyaluronidase which possess analgesic, anti-inflammatory, and anaesthetic activities.^[9] The therapy proved more effective than the topical application of analgesics or NSAIDs.^[10] Superficial skin perfusion increases by leech therapy, especially 16mm around the biting zone. It produces analgesic and antiphlogistic effect by the substances present in its saliva, enforced by hyaluronidase.^[11] It is observed that *leech* therapy was more effective than diclofenac, pain relief, improvement in functional ability, and joint stiffness for 3 months with a single application of leech.^[12] A comparative study conducted between leech therapy and transcutaneous electric nerve stimulation (TENS) showed that leech therapy produced a significant reduction in Lesquene's index for pain and physical function and VAS index.^[13]

Agnikarma: *Agnikarma* is done using *Rajata Shalaka* and *Loha Shalaka*. According to *Acharya Charaka Agni* treats *Shula* and also *Agnikarma* is superior in treatment of *Stambha*^[14]. Modern medicine opines that the blood circulation at the knee joint increases due to the therapeutic heat lending to supply of proper

nutrition to the tissue. This helps to flush away the pain producing substances from the site and reduces local inflammation.^[15]

Correction of Agni, Ajeerna and Aama in Sandhi vata: metabolic disturbance is responsible for OA. Upper or lower GIT imbalance should be corrected with *Deepana* and *Pachana* drugs. Correct the *Medo* and *Asthi dhatu agni mandya* in *Janu sandhi vata*.

Medochikitsa in Sandhivata: *Meda* is the precursor of *Asthi dhatu*, so fat should not be accumulated in the body. *Lekhana vasti*, *Virechana* and *Udvartana* are effective. *Medohara dravyas* are also effective like *Navaka guggulu*, *Guggulutiktakam kashayam*, *Lakshadi guggulu*, *Abhadi guggulu*.

Matra Basti and Tikta Ksheera Basti relieved the pain and other symptoms significantly.^[16]

Shodhana or Shamana chikitsa combined with *Bahirparimarjana* therapies such as *Snehana* and *Swedana/Patra Pinda Sweda* with *Vatahara* (pacifying *Vata*) herbs enhanced the therapeutic effect^[17]

Shamana Aushadhi

Ginger (*Gingiber officinalis* Roscoe.) Extracts: Ginger contains hydroxy-methoxy-phenyl compounds which have anti-inflammatory potential.^[18]

Shallaki (*Boswellia serrata* Roxb.) and its extracts: *Shallaki* reduces pain and inflammation.^[19] The gum resin of *B. serrata* contains 43% boswellic acids which preserve the structural integrity of joint cartilage and maintain a healthy immune mediator cascade at the cellular level.^[20] *Shallaki* inhibits the activity of enzyme 5-lipoxygenase in OA. It also acts as Cox-2 inhibitor, reduces pain and inflammation without affecting the gastric mucosa. It soothes the joint and also helps to treat levels of synovial fluid, making the entire structure lubricated, and easy to rotate or move.

Guggulu Kalpas and its Extract: Different *Guggulu Kalpas* such as *Ashwagandhadhi Guggulu*, *Adityapaka Guggulu*, *Lakshadi Guggulu*, *Panchatiktaghrita Guggulu*, and *Rasnadi Guggulu* are used for the treatment of *janusandhi vata*. *Guggulu* (*Commiphora mukul* Hook. ex Stocks.) possess anti-inflammatory and anti-arthritis activities.^[21]

Haridra (*Curcuma domestica*): *Haridra* (*Curcuma domestica*) extract has anti-inflammatory properties and is proved more effective than ibuprofen.^[22] Curcumin inhibits the matrix degradation of articular explants and chondrocytes. It restores the type II collagen and glycosaminoglycan synthesis and decreases the production of MMP-3, -9, and -13. It reduces WOMAC, treadmill test distance, inflammatory markers such as interleukin 6 (IL-6), IL-1 β , and vascular cell adhesion molecule-1, and erythrocyte sedimentation rate. Curcuminoid is as effective as NSAID.

Administration of Medicated Ghrita (ghee)

Internally: medicated ghee by its *Snigdha guna* reduces the *Ruksha guna* of *vata*.^[23] Plain ghee contains Vitamin D which utilizes calcium and phosphorus in blood and bone building.

Treatment Module According to Modern Science

1. Educate the patient to reduce weight and risk factors.
2. Exercise
3. Physiotherapy
4. Reduction of adverse mechanical factors
5. Drug treatment: An initial trial of paracetamol and NSAIDS and then capsaicin. Opiates may occasionally be required.
6. Surgery: Joint replacement, osteotomy.

Marma Therapy

According to Ayurveda, *Janu marma* is a kind of *Vaikalyakara marma* according to prognostic types, which means on injury it causes structural or functional deformity.

According to *Acharya Sushruta*, it causes *Khanjata* on injury i.e., limping of lower extremity.

The *Janu marma* being a *Marma sthana* is the seat of *Prana vayu*. Any injury to vital points causes *Vata dosha prakopa*. As it is a type of joint, it is the seat of *Shleshma kapha* too, which lubricates and strengthens the joint. Due to vitiation of these two *Doshas* there is pain, swelling, stiffness etc. When the joint is injured, *Marma* therapy is one of the important ways of working on *Prana*, which governs the entire functioning of our body. Therapeutic touch occurs mainly through *Vyana vayu* which distributes *Prana* throughout the body and can direct *Prana* as a healing force.

In this way *Marma* therapy helps in relieving the symptoms of *Sandhigata vata*.

Exercises

Quadriceps strengthening exercises, standing calf stretch, seated hip march, hamstring stretch.

Yoga

Virbhadra asana, *Baddha konasana*, *Dandasana*, *Padangusthasana*, *Setu banddha sarvangasana*, *Adho mukha svanasana*, *Ardha chandrasana*, *Uttanasana*, *Utthita hasta padangusthasana*, *Utthita, parsvakonasana*.

CCRAS Initiatives and Achievements Toward Integration of AYUSH with Modern System of Medicine^[24]

Integration of all systems of medicine can be the way forward to achieve the ultimate goal of health without putting burden on the national budget.

The Council- WHO India country office conducted an operational study to explore the feasibility of integrating Ayurveda with the modern medicinal system in a tertiary care hospital

(Safdarjung Hospital, New Delhi) for the management of Osteoarthritis (Knee) in 2007.

The Ayurvedic treatment provided to 201 patients was found effective in the management of Knee OA with respect to reducing the symptoms, improving the quality of life, and reducing the intake of analgesics.

International Collaborations^[25]

International collaboration project with Charite University Medical Centre, Germany for the management of OA is done. The study evaluated the effectiveness of Ayurvedic treatment compared to conventional conservative care in patients with knee OA. Results suggest that Ayurvedic treatment is beneficial in reducing knee OA symptoms.

Diet for Arthritis

Wheat, oats, rice millets

Urad, moong

Sweet potato, onion, garlic, raw papaya, ginger cauliflower, beet, carrot, beans, coriander, tomato, okra
Almonds, cashews, lotus seeds, pistachio, sesame seeds
Ghee *Takra*.

Duck meat, chicken, fish, goat meat

Apples, bananas, apricots, grapes, cherries, soaked dates, coconuts, lime, orange papaya, pineapple.

DISCUSSION

As *Dhatu kshaya* and *Marga avaran* cause dosha vitiation, it causes many disorders. Among them, *Sandhigata vata* stands top in the list. In *Janusandhivata*, mainly inflammation and pain of the knee joint occurs which causes joint movements restricted. Osteoarthritis is the most common articular disorder that begins asymptotically in the second and third decades and is extremely common by the age of 70. Allopathic treatment has its own limitation in managing this disease. It can provide either conservative or surgical treatment and is highly symptomatic and with troublesome side effects whereas such types of conditions can be better treatable by the management and procedures mentioned in Ayurvedic classics.

CONCLUSION

Osteoarthritis or *Janusandhivat* is a major problem in the modern world, as due to faulty lifestyle obesity is increasing day by day which further speed up the onset of disease. Also due to junk food and lack of proper nourishment synovial fluid gets infected. Joints need proper and timely care as our machine needs. Humans must understand this. In OA as far as seen combined therapies provide better and faster results than a single therapy. Ayurvedic regimen when combined with allopathy, yoga and naturopathy helps in fast healing. Integrating the various pathies is not only beneficial for patients only but also will be a big

milestone as it will set future goals to work by combining the various treatment modules.

REFERENCES

1. Davidson's principles and practise of medicine, edited by Nicki R. Colledge, Brian R. Walker, Stuart H. Ralston, Churchill Livingstone, Elsevier, 21st edition, musculoskeletal diseases, chapter 25th, page no 1083.
2. Charak samhita vidyotini teeka, by Pandit Kashinath Shastry and Dr. Gorakhnath Chaturvedi, chikitsa sthana, chapter 28th, Chaukhambha Bharati Academy, edition 2015, shlok 15-18, page no 779.
3. Charak samhita vidyotini teeka, by Pandit Kashinath Shastry and Dr. Gorakhnath Chaturvedi, chikitsa sthana, chapter 28th, Chaukhambha Bharati Academy, Varanasi, edition 2015, shlok 58, page no 788.
4. Ashtanga Hridayam of Srimada Vagbhatta, edited by Dr. Brahmanand Tripathi, Chaukhambha Sanskrit Pratishthan, Delhi, nidana sthana, chapter 15th, vatvyadhi nidana adhyay, shlok no 526, page no 537.
5. Sushrura samhita by Ambika Dutta Shastri, Nidana sthana, chapter 1st, vatavyadhi nidanam, Chaukhambha Sanskrit Sansthan, Varanasi, edition 2015, shlok no 28, page no.298.
6. Charak samhita vidyotini teeka, by Pandit Kashinath Shastry and Dr. Gorakhnath Chaturvedi, chikitsa sthana, chapter 28th, Chaukhambha Bharati Academy, Varanasi, edition 2015, shlok 37, page no 783.
7. Davidson's principles and practise of medicine, edited by Nicki R. Colledge, Brian R. Walker, Stuart H. Ralston, Churchill Livingstone, Elsevier, 21st edition, musculoskeletal diseases, chapter 25th, page no 1085.
8. Michalsen A, Klotz S, Ludtke R, Moebus S, Spahn G, Dobos GJ. Effectiveness of leech therapy in the osteoarthritis of the knee, a randomised controlled trial. Annals of internal medicine. 2003; 139: 724-30.
9. Haycox CL, Odland PB, Coltrera MD, Raugi GJ. Indications and complications of medicinal leech therapy. J Am Acad Dermatol. 1995; 33: 1053-5.
10. Andereya S, Stanzel S, Maus U, Mueller-Rath R, Mumme T, Siebert CH, et al. Assessment of leech therapy for knee osteoarthritis: A randomised study. Acta Orthop. 2008; 79: 235-43.
11. Michalsen A, Klotz S, Ludtke R, Moebus S, Spahn G, Dobos GJ. Effectiveness of leech therapy in the osteoarthritis of the knee, a randomised controlled trial. Annals of internal medicine. 2003; 139: 724-30.

12. Michalsen A, Deuse U, Esch T, Dobos G, Moebus S. Effect of leeches therapy (*Hirudo medicinalis*) in painful osteoarthritis of the knee: A pilot study. *Ann Rheum Dis.* 2001; 60: 986.
13. Stange R, Moser C, Hopfenmueller W, Mansmann U, Buehring M, Uehleke B. Randomised controlled trial with medical leeches for osteoarthritis of the knee. *Complement Ther Med.* 2012; 20: 1-7.
14. Shastri R, Upadhyaya Y, editors. *Charaka Samhitha of Agnivesha, Chikitsa Sthana.* Edition reprint. Ch. 25, Ver. 40. Varanasi: Choukambha Prakashan; 2009. p. 132.
15. McLean DA. The use of cold and superficial heat in the treatment of soft tissue injuries. *Br J Sports Med.* 1989; 23: 53-4.
16. Aman S, Bhattacharyya D. Role of Matra basti in Janu sandhigata vata. *International Ayurvedic Medical Journal.* 2013; 1: 1-5.
17. Sharma MR, Mehta CS, Shukla DJ, Patel KB, Patel MV, Gupta SN. Multimodal Ayurvedic management for Sandhigata vata (Osteoarthritis of knee joints) *Ayu.* 2013; 34: 49-55.
18. Haghghia A, Tavalaeia N, Owliab MB. Effects of Ginger in primary osteoarthritis of knee. *Indian J Rheumatol.* 2006;11:3-7.
19. Zenica D, Acharya GS. Effect of shallakki on knee osteoarthritis (Janu sandhigata vata) *J Ayurveda Holistic Med.* 2013; 1(3): 17-21.
20. Garnero P, Rousseau JC, Delmas PD. Molecular basis and clinical use of biochemical markers of bone, cartilage, and synovium in joint diseases. *Arthritis Rheum.* 2000; 43: 953-68.
21. Arora RB, Kapoor V, Gupta SK, Sharma RC. Isolation of a crystalline steroidal compound from *Commiphora mukul* & its anti-inflammatory activity. *Indian J Exp Biol* 1971; 9: 403-4. Kupit Niratsaikul V, Thana
22. khumtorn S, Chinswangwatanakul P, Wattanamongkonsil L, Thamlikitkul V. Efficacy and safety of *Curcuma domestica* extracts in patients with knee osteoarthritis. *J Altern Complement Med.* 2009; 15: 891-7.
23. Akhtar B, Mahto RR, Dave AR, Shukla VD. Clinical study on Sandhigata vata w.s.r. to osteoarthritis and its management by Panchatikta Ghrita Guggulu. *Ayu.* 2010; 31: 53-7.
24. *Ayurveda- A Focus On Research And Development- CCRAS, Ministry of AYUSH, Govt. of India, page no 46.*
25. Comparative effectiveness of a complex Ayurvedic treatment and conventional standard care in osteoarthritis of the knee-study protocol for a randomised controlled trial by Claudia M Witt et al at Institute for Social Medicine Epidemiology and Health Economics, Charité- Universitätsmedizin Berlin, Berlin, Germany. PMID: 23701973, PMCID: PMC3664613, DOI: 10.1186/1745-6215-14-149

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