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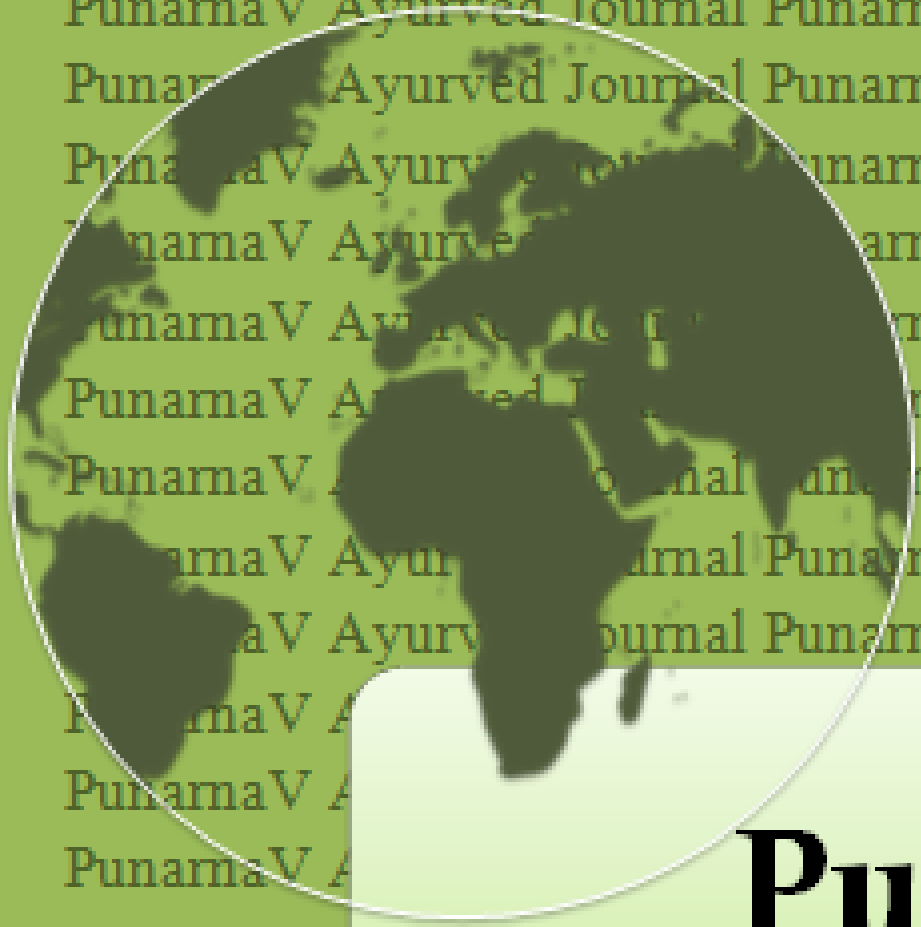

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EFFCET OF JANUBASTI IN JANUSANDHIGATAVATA: A CONTROLLED CLINICAL STUDY

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ABSTRACT:

Background & Subjective: *The disease sandhigatavata is as old as mankind and results to the vitiation of vata dhosha . Which get lodged in the joints causing disequilibrium in between articular cartilage and imposed properties of the tissues . It is analogous with Osteoorthrosis mentioned in modern paralence. Osteoorthrosis condition manifest in the middle and elderly age group of patients and most often seen an insidious course. This disease still a challenging problem to the modern science , causing agonizing pain , swelling , deformity, and permanent disability of the joints. Especially weight bearing joints like knee joint ie , janusandhi. Among elderly knee OA is the leading cause of chronic disability. Considering all these , the present study was taken up with the objective of evaluating the efficacy of Janubasti over the knee joint in the management of janusandhigatava.*

Aim: *To evaluate the efficacy of Janubasti in the management of januSandhigata vata when added to the conventional shamana therapy.*

Materials and Methods: *Thirty cases presenting with classical features of janusandhigatavata (kneejoint OA) were selected. The management of janusandhigatavata by Janubasti and Tab - Trayodashangaguggulu was conducted by including the patients in two groups , namely Group A (study group) and Group B (control group).The data were collected and the observations were made before , on 7thday, 14th day, 21st day, 28th day, 35th day, 45th day of the treatment. The data obtained from the results were subjected for statistical analysis and conclusion were drawn.*

Results: *30 Subjects who satisfied the selection criterion were recruited. In symptoms like janusandhishula and stiffness significant mean reduction was observed and inter group comparison was statistically highly significant with p value of < 0.001. But reduction of atopa was only statistically significant with P value < 0.01and shotha was not statistically significant with p value >0.05. Group A was more effective than Group B. There was no significant change in the level of biochemical parameters within and between the groups.*

Conclusion : *The management of januSandhigata by Janubasti was more efficacious as compared with Trayodashangaguggulu in reducing pain However there were no radiological changes produced by both the methods of treatment. Further studies may be conducted by future scholars by taking more samples with more number of course of janubasti.*

Key words : *Atopa, Crepitus, Janubasti , Janusandhigatavata ,Shula, Shotha*

INTRODUCTION

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The disease *Sandhigata Vata* is as old as mankind and results to the vitiation of *vata* dosha. Which get lodged in the joints causing disequilibrium in between articular cartilage and imposed properties of the tissues. It is analogous with osteo - orthrosis mentioned in modern paralence. Osteoarthrosis condition manifest in the middle and elderly age group of patients and most often run an insidious course. This disease still a challenging problem to the modern science, causing agonizing pain, swelling, deformity and permanent disability of the joints. Especially weight bearing, joints like knee joint i.e., janusandhi. Among elderly knee OA is the leading cause of chronic disability.

Description available regarding the disease *Sandhigata vata* is very minimum in Bhruhatrayees. No contribution has been found from the later authors in this regard. So detailed description of *Sandhigata vata* is not available in ancient texts of medicine i.e., Ayurveda, but a lot of work has been carried out in contemporary science in this field.Both Ayurveda as well as contemporary science agree that the possibility of complete cure is less or rather difficult and in majority of cases we can offer only a temporary relief. The methods and medicines which are used to give temporary relief are also not satisfactory. Some of them fails to give the desired relief after some time and some others results in serious side effects. As a result of all these limitations the disease becomes progressive. Hence there is a need to evaluate an alternate method of treatment to curve the condition if possible or if not, to manage it successfully. Acharya Sushrutha advocates, *snehana, upanaha, bhandhana, mardana* and *Agnikarma* in the management of *sandhigatavata*. Rest of the *acharyas* followed him without a second opinion. *Janu basti* is one such procedure, which does both *snehana* and *swedana*. It is one of the variety of *bahya sneha*. Detailed description about its procedure and direct indications are not available in the classics. Hence a comprehensive procedure of *Janu basti* was formulated based on the concepts of Ayurvedic literature.

The present study was undertaken to assess the efficacy of *Janubasti* in *Janu sandhigatavata* vis-a-vis OA of the knee

joint and that too primary O.A., post traumatic O.A., O.A associated with overweight were selected. The efficacy of *Janubasti* was compared with another therapy. A single blind controlled study was planned. The control group was treated with only *Trayodashanga guggulu*. The test group was treated with *Janubasti* along with *Trayodashanga guggulu*. Clinical symptoms and 'X' - ray were the main diagnostic tools. Assessment was made on the basis of symptomatology.

OBJECTIVE OF THE STUDY

To evaluate the efficacy of *Janubasti* in the management of *janu Sandhigata vata* when added to the conventional *shamana* therapy.

MATERIAL AND METHODS

A sample size of 30 was derived by calculating the effective size based on the mean and standard deviation of a published interventional standard. Patients were recruited by advertisement and referrals by the medical practitioners. Among 38 patients who attended the outpatient and inpatient departments of govt ayurveda hospital Mysuru , Karnataka. So who satisfied the selection criteria were included.

DIAGNOSTIC CRITERIA

1) Symptoms- Shula, *Shotha* , Atopa, Sandhi stabdata

- Characteristics of joint discomfort
- Aggravated on joint use (movement) relieved on rest
- Morning stiffness absent or present for less than 30 min

Signs
- Local tenderness
- Bony and soft tissue swelling
- Crepitus, effusion

2) Imaging Diagnosis Criteria

a) Formation of osteophytes in the joint margin or ligamentous attachments ie., tipial spine

b) Narrowing of joint space associated with sclerosis of subchonrdral bone

c) Cystic area with sclerotic walls situated in sub chondral bone

d) Altered shape of bone end.

Grading According to Number of Criteria Present

0	=	No. O.A.
1	=	doubtful OA
2	=	Minimum OA
3	=	Moderate OA
4	=	Severe OA

INCLUSION CRITERIA

Patients suffering from *janusandhigatavata* with all the classical symptoms were selected ie, *shula* , *shotha* , *atopa* (stiffness) stabdata. Signs -local tenderness, bony & soft tissue swelling, crepitus, effusion.

Patients diagnosed to have primary OA, OA associated with overweight, or post traumatic OA, were selected. Patients were

selected irrespective of sex, occupation, and chronisity

EXCLSION CRITERIA : All secondary osteo-orthopatheis except post traumatic and overweight patients were excluded.

Patients having other systemic disorders which would decline the general condition of the patient and interfere with the course of the disease and its management were excluded.

ETHICAL CLEARANCE AND CONSENT; The study was approved by the institutional ethical committee and signed informed consent was obtained from all the patients.

STUDY DESIGN; In this randomized control study 30 subjects who satisfied the study criteria were divided into two groups. Group -A(Test group), Group-B(Control group). The patients in group A were treated by *Janubasti* with *Ksheerabala taila* and patients group B were treated with Tab *Trayodashsngaguggulu*. A semi structured interview was used to obtain demographic details such as vital clinical data, personal, family history. Outcome variable were recorded before the treatment and on 7^{th}, 14^{th}, 21^{st}, 28^{th}, 35^{th}, 45^{th} day after treatment . The pain Analog scale (PAS) sheet was opened and analyzed until the completion of both pre and post data.

Assessment criteria: For the assessment of treatment the following gradings were given

I) Shula Scores

-No. *shul* - 0

-Mild *shula* after exercise - 1 (*Prasarana kunchana alpa vedana*)

-Severe Shula after exercise - 2 *(Prasaranakunchana teevra vedana)*

-Shula at rest present but interferes - 3 with routine work

- Shula interfere with sleep 4

II) *Shotha*

- No *shotha* 0
- Mild *shoth* 1
- Moderate *shotha* 2
- Severe *shotha* 3

III) Atopa

- No crepitus 0
- Only palpable 1
- Always palpable and sometimes audible 2
- Always audiable crepitus 3

IV) *STABDHATA* (STIFFNESS)

-No stiffness 0

-In between 1800 -160^{o} (<45o) stiffness 1

-In between 1600-1200 (45^{o}-90^{o}) stiffness 2

-More than 90^{o} stiffness 3

Overall Assessment and the Treatment

Grade 1

- Complete remission
- No pain

- No swelling
- No crepitus
- No stiffness
- No tenderness

Grade 2

- Marked improvement
- Mild pain on movement of knee joint
- Mild or absent of shorter
- No stiffness or < 45^{o} stiffness
- Palpable crepitus or absent

Grade 3

- Minor improvement
- Pain is partially subsided
- Decreased but swelling is present
- Stiffness in between 45^{o} to 90^{o}
- Always palpable crepitus

Grade 4

- No improvement
- Pain not subsided or increased
- *Shotha* not reduced or increased
- Stiffness not decreased
- Audiable crepitus

The data was collected from both the groups on 7th, 14th, 21st, 28th, 35th and 45th days. The data of group A and Group B were compared and analyzed by using students unpaired "t" test. "P" value was calculated by referring "Fisher's table" at corresponding level of degree of freedom.

INTERVENTION

In Study group *Janubasti* procedure (the procedure of retaining oil in the prescribed area ie *janusandhi* - knee joint) was explained to the patient in detail. The *ksheerabala taila* was kept in a steel utensil and warmed mean while, dough of sufficient quantity of black gram flour was made by adding required quantity of water. The patient is made to sit erect or lying down comfortably on a table with the affected (limb) *janusandhi*. (in horizontal plane) was exposed. The dough was made into a shape of a circular ring corresponding to the area of knee joint and fixed there in such a way that the entire area adhered to the skin properly and prevented the leakage of the *taila* (oil) from the circular ring. Then the luke warm *taila* (oil) was slowly poured inside the circular ring from the utensil by using Darvi(wooden spatula) Uniform temperature of the oil was maintained inside the circular ring by rotating the oil with a finger. Once the temperature of the oil decreased it was replaced with lukewarm oil again. The procedure was continued till the patient attained *samyak swinna lakshanas* (signs of proper sudation) like appearance of sweating, relief from pain, stiffness and heaviness for upto 30 minutes. Later the oil was completely removed from the circular ring with the help of cotton swab. The dough ring was removed and mild massage was carried over knee joint region. Then the

patient was advised to take lukewarm water wash.

The procedure of *Janubasti* was done once daily for 7 days continuously. The oil used for the procedure on 1st day was reused for another 3 days and later from 4th day it was replaced by fresh oil till 7th day. Second course of *Janubasti* was carried out similarly after 7 days .

In control group (B) patients treated with Tab- *Trayodashangaguggulu* 2 tid from the day one to 45th day.

In both the methods of treatment observations were made before the treatment and on the 7th day after 1st course (ie on 8th day) on the 7th day after 2nd course (ie on 15th day) , 21st, 28th, 35th, 45th day. Duration of 45 days was fixed to observe the possibilities of recurrence in cases which had complete relief from the treatment. The observations were made regarding the changes with the above procedure were recorded in the proforma of case sheet prepared for the study.

RESULTS

30 Subjects who satisfied the selection criterion were recruited. In symptoms like *janusandhishula* and stiffness significant mean reduction was observed and inter group comparison was statistically highly significant with p value of < 0.001. But reduction of *atopa* was only statistically significant with P value < 0.01and *shotha* was not statistically significant with p value >0.05. Group A was more effective than Group B. There was no significant change in the level of biochemical parameters within, in between the groups.

There was a significant reduction in the parameters *janusandhishula* pain (P<0.001), *stabdata* (stiffness)(P<0.001), *Atopa* (cripetus), (P<0.01) and *shotha* was not statistically significant with(p>0.05) of the study group compared to the control group (P<0.01) pain was assessed through Numerical Pain Analogous Scale. After the treatment with *Janubasti* the pain was totally relieved in 80% of cases i e ; Grade 1 *shula* was completely relieved in both test and control group Grade 2 *shula* was completely relieved in test but minimal decrease in control group ,Grade 3 *shula* marked improvement was observed in test group where as in control group no changes as such. In steroid dependent patients no improvement was observed in control group but in test group improvement was seen. Long lasting effect was seen in fresh cases but not in severe degree in test group . Shula statistically significant with p value p<0.0001 in test group , in control group it is p<0.05.Stabdata (stiffness) : Grade 1 stiffness was completely relieved in both the groups . Grade 2 stiffness was completely relieved in test group where as

in control group it was minimal. Grade 3 stiffness was reduced in test group. It is difficult to compare *shotha* and crepitus(atopa) with pre and post test between the groups. However changes in the radiological findings were not found in both the methods of management. Analysis of overall effect of treatment in the present study reveals that *Janubasti* was statistically significant compared to that of *Trayodashangagugglu*.

DISCUSSION

Probable mode of action of janubasti

Most of the time there is presence of *ama* at *dhatu* level and to maintain the *samagni*, *deepana pachana* therapy was given ie with *Ajamodhadhi churna*. In *janu Sandhigata vata* rukshata and *kharata* of *prakupita* (vriddha) *vata laxanas* are usually seen. A part from the *shleshaka kapha kshaya* is also quite evident . The main clinical features of *Sandhigata vata* is *shula.Ksheera* and *bala mula* are having qualities like *madhura* rasa, *sheeta veerya* and *balya*. Bala is vedanastapaka and *kapha vardhaka.Tila taila* is *ushna* in *veerya*, *teekshna* in guna.*Madhura vipaka Sthanika chikitsa* is *vatahara*. So in *janu Sandhigata vata stanika chikitsa* ie *Janubasti* with *ksheerabala taila* is helpful in by controlling *vata* . It helps to increase the *kapha bhavas* and it does the dhatu *posana* also. Occupation, physiological stress and strain play a prime role in the causation of knee O.A. Over weight is also one of the risk factors in knee O.A. Shula is the main clinical feature that draws the attention of a patient and brings him to the physician. The procedure *janu basti* was very effective in *krusha* and normal weight patients. It was less effective in over weight patients when compared with *krushas. Janu basti* is effective in relieving pain and stiffness when compared with other symptoms, complete remission was observed in four patients.

CONCLUSION

Janu basti has got a long term effect in fresh cases. The therapy is very effective in fresh cases of primary O.A. In present clinical study significant reduction in *shula* and *stabdata* (stiffness) was seen in Group 1 as compared to Group 2. The *Janubasti* is effective ($p<0.001$) for *shula stabdata* (stiffness) reduction.

REFERENCES

1) Chakrapani (1994), Charaka Samhita, Ayurveda Dipika Sanskrit Commentary, Fourth Edition, Edr. Vaidya Yadavaji Trikamji Acharya, Varanasi, Choukhamba Sanskrit Sansthan, pp.618.

2) Dalhana (1997), Sushrutha, Nibandha Sangraha Sanskrit Commentary, Sixth

Edition, Edrs. Vaidya Yadavji Trikamji Acharya and Narayana Ram Acharya, Varanasi, Choukhambha Orientalia, pp. 261-420.

3) Aruna Datta and Hemadri (1998). Ashtanga Hridaya, Eigth Edition, Edr. Vaidya Hari Shastri Paradakara, Varanasi, Choukhamba Orientalia, p. 531-724.

4) Kaviraj Atridev Gupta (1993). Asthanga Sangraha, First Edition, Hindi Commentary, Varanasi, Pub. by Krishnadas Academy pp. 400, p.125.

5) Chakrapani (1997) Chakaradatta, Third Edition, with Vidyotini Commentary Edr. Dr. Indradeva Tripathi, Prof. Ramanath Dwivedy, Choukhambha Sanskrit Sansthan pp. 1333, 139, 146, 149, 151.

6)Madhavakara (1993) Madhava Nidana, Madhukosha Sanskrit Commentary, Twenty Second Edition, Edr. Yadunandana Upadhyaya, Varanasi, Choukhamba Sanskrit Sansthan, pp.418.

7)Laxmipathi Shastri Vaidya (1997) Yoga Ratnakara, Sixth Edition, Edr. Brahmashankar Shastri, Varanasi, Choukhambha Sanskrit Sanstha, p. 505, 517, 527, 287, 285, 529, 532, 546, 542, 566.

8)Bhava Mishra (1961). Bhava Prakash Volume II Third Edition, Edr. Brahmashankar Mishra, Varanasi, Choukhambha Sanskrit Series, p. 264-265, 277.

9) Hareeta (1974). Hareeta Samhita, First Edition, Edr. Kshemaraja Shri.Krishnadas, Bombay, Shri .Venkateshwara Press, pp. 348,353.

10)Vriddha Jeevaka (1953) Kashyapa Samhita, First Edition, Edn. Pandit Hemaraja Sharma, Banaras, Vishwa Vidyalaya, Press, pp.75,162.

11)Bhela (1959), Bhelasamhita, Edr. Girijadayalu Shukla, Chowkamba Vaidya Bhava, Varanasi, pp.142,283.

12) Bhattacharya T.T. (1967). Shabdastoma Mahanidhi, Chowkamba Sanskrit Series, Varanasi, pp. 184, 458, 150, 387.

13) Damodar Sharma, Goud (1979). Parishadyabdartha Shareera Baidyanath Ayurveda Bhavana, Delhi, Second Edition.

14) Gananath Sen (1966) Siddantanidaha, Chowkambha Sanskrit Series, Varanasi, Fifth Edition, p. 210.

15) Ramaraksha Pathak (1980), Kaya Chikitsa, Second Edition, Varanasi, Chowkhamba Bharathi Academy, pp. 426, 437.

16)Raja Radha Kantadeva (1967) Shabda Kalpa Druma, Third Edition, Varanasi, Chowkhambha Sanskrit Series.

Govindas (1993). Bhaishajya Ratnavali, Elevanth Edition, Edr. Brahma Shankar Mishra, Varanasi, Choukhambha, Sanskrit Series, 437, 444,441, 446, 416, 396, 399, 400, 411, 447.

Ganga Sahaya Pandeya (1969) Ed. Gada Nigraha, Varanasi, Chowkhambha Sanskrit Bhavan, p.79.

Monier &Williams (1970), Sanskrit English Dictionary, First Edition, Delhi, Motilal Banarasidas, pp. 418, 1144, 347, 934.

Shiva charan dhyani (1991), Kayachikitsa, First Edition, Lucknow, Ayurvedic and Tibet Academy.

Tirumales Bhat (1989), A study on *Sandhigata vata* and its management: M.D. Thesis Department of K.C. GAMC, Mysore.

Bharathi A.P. (1999), The role of Matra basthi in the management of Sandligataratio M.D., Thesis Department of K.C. GAMC, Mysore.

Aurther C. Guyton (1991), Text book of Medical Physiology, Eigth, W.B. Saunders, company London, pp. 11, 13, 14.

Kenneth D. Brandt (1998), Harison's principles of Internal Medicine, Fourteenth edition Eds Authomy S. Fauci, Joseph. B. et. al., Mc. Graw Hill, Health provision division, New York, pp. 1935 - 1941.

Sharma. P.V., (1983), Dravya guna Vijnana, chowkhambha Bharathi Academy varanasi.

French's index of differential diagnosis, (1985), Twelth Edition, Eds Fdudley. Hart, Indian Ed. K.M. Varghese, Bombay, pp. 493, 455 - 456.

Colour Atlas and Text book of Osteo - Arthritis, (1994), Ed. By Michael Do huty, First Edition, U.K., pp. 10 - 16.

Dieppe, P. (1987), Oxford Text book of Medicine Vol. II Edition D.J., Weatherall, J.G.G., Ledinghum, D.a. Warrell, pp. 16 - 77, 16 - 78, 16 - 79.