

Herbal Compound (*Guggulu, Amrita & Punarnava*) in the Management of Osteoarthritis (*Shandivat*)

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Abstract

Osteoarthritis (*Sandhivat*) is mentioned as a debilitating disorder more common in females than males and generally caused by wear and tear. There are many types of arthritis (rheumatoid, degenerative, post-traumatic, auto-immune induced, etc). The most common form is osteoarthritis. It is also known as degenerative joint disease. While the exact cause is unknown, there are known to be several possible causes including: injury, age, congenital predisposition and obesity. It is characterized by the breakdown of the articular cartilage within the joint. It is a degenerative process occurring in joints that are impaired by vascular insufficiency, congenital defect, age, or previous history of joints disease. In Ayurveda all the Characters of Osteoarthritis is may compare with *Sandhivat*. This present work is aimed to study to evaluate the efficacy of herbal compound and with local application of *Janubasti* in the management of Osteoarthritis (*Sandhivat*). Available data suggests that the herbal compounds are safe, economic and effective for the treatment of Osteoarthritis (*Sandhivat*).

The current study is a clinical trial conducted on randomized collection of 120 (one hundred twenty) patients in both males and females with radiological and clinical evidence of Osteoarthritis (*Sandhivat*) of the knee joint. All the diagnosed patient were selected from OPD and IPD of Govt. Ayurvedic College Hospital, Guwahati. The selected patient are divided into two groups equally as group 'A' and group 'B' (60 nos. patient in each group). The trial drugs (herbal compound as cap form for oral administration and Tila toila for local application as Janubasti were prepared by self with the help of rasashala expert.

Keywords *Dosa Dhatu, Sandhivat, Janubasti, Janusandhi*



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INTRODUCTION

The word *sandhivata* is having two vital parts viz. “*sandhi* and “*vata*”¹.

When *vayu* is aggravated due to ruksha, shita, and laghu ahar, excessive coitus and vigils, faulty therapeutic movement, excessive leaping, jumping and physical exercise, leads to dhatuksaya and srotavaradha that produced various disorders entering in to the sandhi².

Charakacharya mentioned that *vasti* is the specific treatment of *vata vyadhi* by *tikta dravya* prepared with milk and ghee.³ Susruta explain the property of *guggulu* and its indication. After use of *guggulu vitiatd kosta* becomes clear along with *Asthi* and *Sandhi*. *Guggulu kalpa* is first described in Susruta Samhita for sandhivata.⁴

Bhava Mishra advised that *Trayodasanga guggulu* is the specific drug for *sandhivata* with *madhu*, *Rasun* and *triphala* juice as anupana⁵.

Different preparation of *guggulu* is mentioned with different vehicle in Ayurvedic classics. i.e. *Trayodasanga guggulu*⁶, *Yogaraj guggulu*⁷ etc.

As like *guggulu Rasayoga* is also used in *Sandhi vata*. Rasa raja contains rasa with *sindur*, *abrakbhasma*, *swarna bhasma*, *Rajat bhasma*, *Aswagandha*, *Banga bhasma*.

Osteoarthritis is a condition that represents a pathological imbalance of degenerative and reparative processes involving all tissues of the joints including articular cartilage, synovial capsule particularly soft tissues⁸.

The main symptoms of Osteoarthritis are pain and stiffness which can affect one or both knees when we move the joint or at the end of the day. We may have pain all around our knee or just in a particular place, most likely at the front and sides. The pain is usually better when we rest. Some people have pain that wakes them up at night this generally only happens with severe Osteoarthritis⁹.

OBJECTIVES

1. To evaluate the efficacy of herbal compound (*guggulu*, *amrita* and *punarnava*) and *Janubasti* in the management of *Janu Sandhivata* (OA of knee joint).

MATERIALS AND METHODS

The clinical trial was carried out in the Dept. of Kayachikitsa, Govt. Ayurvedic College and hospital Guwahati. A total of 120 patients with osteoarthritis got registered for a period of 6 month. in group A capsule containing 500mg of herbal compound was orally given to the selected knee

osteoarthritis patient two times daily. For group B herbal compound capsule along with *januvasti* was administered. During the period of treatment concurrent pain killer and other modern medicine were prohibited. Fatty, high protein diet was restricted during the study time. Hospitalized patients were additionally treated with *Janubasti* for 15 days accordingly (only *tila taila* was applied).

STUDY DESIGN

Patients were collected randomly from OPD and IPD of Kayachikitsa & Panchakarma Dept. of Govt. Ayurvedic College, Jalukbari, Guwahati.

Unpaired T-test was carried out on two groups of patients. In each group 60 patients were included with proper evidence of Osteoarthritis of knee joint. Written consent of patients was taken for the study. Clinical trial of Pre-test and post-test was evaluated properly.

STUDY PROCEDURE

All the patients were grouped randomly into two groups of 150 patients each. A detailed history of suffering from Osteoarthritis was then recorded.

Inclusion Criteria:

1. Patient of osteoarthritis with proper evidence.
2. Age of the patient would be above 40 years with both sex male and female.
3. Tolerance of the patient to be noted.
4. Co-operation of the patient is necessary with full consent.

Exclusion Criteria:

1. Having heart diseases renal failure, tuberculosis and with sever inflammatory condition of the joint.
2. Osteoarthritis of knee as a consequence of external injuries like fractures and dislocations.
3. Vulnerable group like lactating mothers, pregnant women and mentally challenged persons.
4. Patients with any communicable diseases.

Parameters:

Rate of knee joint movement

Age and sex of the patients

Clinical assessment before and after treatment

Response of the trial drugs

All the selected patient of osteoarthritis were classified with their demographical data and clinical evidences.

Assessment of Trial Drugs:

The assessment of the severity of the disease which was done by the careful study of the clinical record and detailed history of the patient. All the laboratory investigation and sign and symptoms are noted according to the modern and Ayurvedic parameters and possible graded scale. The problem analysis was done carefully before the treatment and after the treatment of the research study.

☐ Subjective assessment: Keeping in view of symptomological improvement and clinical changes of the patient observing in two different follow-up study respectively. In case of compound herbal drugs as capsule form has given to the group (B) OA pt. for 6 month with *Januvasti* daily for 15 days by *Tila Tail* and only compound herbal cap for 6 months respectively to OA pt. of Group - A.

☐ Objective assessment: The changes of physical deformity and remission of sign and symptoms are recorded before and after treatment by collection of pathological and radio graphical data and patient complains and history. The changes were calculated every 30 days of the treatment.

RESULTS

Clinical profile:

It was observed that during physical rest patient does not feel pain but when they are

working pain was started. Among the 120 patient 72 (60%) feel pain during work and rest of them i.e. 48 (40%) the pain was stable means no changes are there.

10% patient feel pain in morning and 30% means 36 patient feel pain at evening. Rest of the patient 72 nos. (60%) patient feel continuous pain and they need more longer medication.

No remarkable changes of pain has seen in relation to the weather. It was seen that in winter season patient feel a little more pain than the rainy or the summer season.

It was observed that after the study the insidious type of onset was maximum 41.66% and chronic cases are 35% but in acute stage it was 23.33 and they are belongs to the 40 to 50 years of age.

During the study period it was observed that body weight of the patients was decrease rapidly according to the age of the patient. The age in between 51-60 kg before treatment 43.33% and after treatment decreased to 41.66% and weight between 61-70 kg it was maximum upto 50% and reduced to 43.33 after the treatment. So it seen that the diet habit and faulty activity increase the body weight. The knee is the weight bearing joint so that more stress in

given and it is easy to developed as a osteoarthritis patient.

Demographic profile:

i) **Age and sex:** The study was seen that between 51 to 60 years in percentage was 50% and female was 66.66% and male 33.33%. So maximum patient was seen in between 51 to 60 and females are more effected by osteoarthritis. So due to degenerative changes in old age females are largely effected than men. It may be due to hormonal changes and weight gaining after manepose.

ii) **Occupation and food habit:** Among the house wife more peoples are affected in osteoarthritis and non-vegetable people are more than vegetarian it is because due to heard labour and due to chunky food habit where no food value or imbalance otherwise maximum house wife are female.

iii) **Family history:** It is seen that during study maximum numbers of osteoarthritis patients having family history of osteoarthritis. It may be due to hereditary disorders.

iv) **Body weight:** Maximum body weight always give disturb during movement of the joint. And more stress destroy the joint contains with cartilages and meniscus.

v) **Assam is belongs to Anupdesa and vataja and vatapittaja prakriti** person are more in number with osteoarthritis so that *vata dosa* obstructed and covered with *kapha* and *vata* aggravated to produce *sandhivata*.

The effect of the therapy: After analysis of result it is observed that after advised of oral therapy 7.66% of osteoarthritis patient was improve their complain mild improvement was 16.66% and patient after taking both oral & local (*janubasti*) number of improve patient was increase significantly. But among the 120 patient only 11.66% percent patient give no changes.

Comparative study of group A and group B:

The difference of improvement between A and B group we applied paired 't' test to know which group of drugs better effect on osteoarthritis.

The level of significant was set at 5% ($P=0.05$). After test it shows that 't' value of pain swelling stiffness, restriction of movement and cripitus was 9.0, 5.84, 5.33, 9.0 and 7.9 respectively at which 'P' value is less than 0.05 & mean difference value was more in group 'B' than group 'A' in each clinical feature of *Sandhivata*. Therefore group 'B' mean oral; herbal compound with *Janubasti* has better efficacy than 'A' and

shows effective result on knee osteoarthritis or *janusandhivat*. So to come definite conclusion further clinical trial is required on large number of osteoarthritis patient to give definite conclusion.

CONCLUSION

From the outcome of the research study we can arrived on the following conclusion:

- i) While trial drugs has given the weight of the patient reduced which was the major factor of OA.
- ii) Due the application of *Januvasti* mobility of the knee joint comes to normal gradually.
- iii) The clinical symptoms mainly pain, swelling, restriction of movement was reduced.

In very short we conclude that the trial drugs cap and *Januvasti* with *Tila Taila* is very much effective to reduce the clinical symptoms of OA as well as the physical fitness by the reduction of body weight.

REFERENCES

1. Shashtri Kashinath and Chaturbedi (Editor), Charak Samhita of Agnibesh revised by Charaka and Drihabala, Vol. 2, reprint 1998, Choukhamba Bharati Academy, Varanasi, Chapter -28, page no. 72-74.
2. Shashtri Kashinath and Chaturbedi (Editor), Charak Samhita of Agnibesh, revised by Charaka and Drihabala, Vol. 2, reprint 1998, Choukhamba Bharati Academy, Varanasi, Chapter -28, page no. 15-18.
3. Shashtri Kashinath and Chaturbedi (Editor), Charak Samhita of Agnibesh revised by Charaka and Drihabala, Vol. 2, reprint 1998, Choukhamba Bharati Academy, Varanasi, Chapter -28, page no. 27.
4. Yadavji Trikamji Acharya (Editor), Sushruta Samhita of Sushruta with Nibandha Samgraha commentary of Sri Dalhanacharya, Edition 1994, Choukhamba Surbharti Prakashan, Varanasi, Chapter -5, page no. 40-50.
5. Murthy Srikantha K.R. Prof., Bhavaprakash of Bhavamishra, Volume II, 3rd edition 2005, Choukhamba Krisnadas Academy Varanasi, Chapter-24, page no. 114-121.
6. Shashtri Ambikadatta, Bhaishajyaratnavali with Vidyothini Bhashateeka Amvata, Chowkamba Orientalia, Varanasi, page no. 162-167.
7. Shashtri Ambikadatta, Bhaishajyaratnavali with Vidyothini Bhashateeka Amvata, Chowkamba Orientalia, Varanasi, page no. 204-208.
8. Gupta PK, Samarakoon SMS, Chandola HM, Ravishankar M. Clinical evaluation of Boswellia serrata (shallaki) resin in the management of Sandhivata (osteoarthritis) AYU 2011; 32:478-82.
9. Arthritis Research UK, Copeman House, St Mary's Court, St Mary's Gate, Chesterfield, Derbyshire S41 7TD, Published April 2013, 2017/OAK/13-1.