A CLINICAL STUDY ON THE THERAPEUTIC EFFECT OF DASHANGA GUGGLU IN JANUSANDHIGATA VATA W.S.R. OSTEOARTHRITIS

Dr. Ramesh Prasad Gupta* and Prof. (Dr.) B.B. Khatua

1Ph. D. Scholar, Dept. of Kayachikitsa, Gopabandhu Ayurveda Mahavidyalaya, Puri.  
2Supervisor, Principal, Kaviraj Ananta Tripathy Sharma Ayurveda College & Hospital, Ankushpur, Ganjam, Orissa-761100, Berhampur -University.

*Corresponding Author: Dr. Ramesh Prasad Gupta  
Ph. D. Scholar, Dept. of Kayachikitsa, Gopabandhu Ayurveda Mahavidyalaya, Puri.

ABSTRACT  
SandhiGataVata (SGV) is explained in Ayurveda under vatavyadhi, the concept of Gata vata is explained among Tridoshas, Vata is responsible for all Cheshta and all diseases. In old age, all Dhatu beings undergo Kshaya, which leads to Vata Prakopa and makes the individual prone to many diseases. Aging and Obesity are the major factors for increased occurrence of osteoarthritis. The Shamana procedures like Snehana, Swedana, Lepa, Bandhana, Agni Karma and Raktamokshana are emphasized in Ayurveda to provide relief from pain & swelling and restore mobility. Bhavamishra explained Dashanga Guggulu which has Amapachaka, Medohara and Vatanulomaka action. Hence it is planned to evaluate the efficacy of Dashanga Guggulu in JanuSandhigataVata.

KEYWORDS: JanuSandhigataVata, Osteoarthritis of knee Joint, Dashanga Guggulu.

INTRODUCTION  
Sandhigata Vata or Osteo-arthritis is a type of Vatavyadhi which mainly occurs in Vriddhavastha due to Dhatukshaya and is the commonest form of articular disorder. It limits everyday activities such as walking, dressing, bathing etc. thus making patient disabled/handicapped. Vatavyadhi, affecting Marmasthisandhi and its occurrence in old age makes it Kastasadhya for the patient. Till date no medicine is available which prevents or reverses or blocks the growth of this disease.

The etiology of pain is multi-factorial, including inflammatory and non-inflammatory causes. The disease is managed by NSAIDs, analgesic drugs, physiotherapy and corticosteroids etc. Above drugs are very costly and have unwarranted side-effects. Even the surgical treatment does not provide complete relief.

Treatment modalities in contemporary science are pharmaco-therapies with Non-Steroidal Anti Inflammatory Drugs, Intra articular injections and Surgery. There has been little response to the therapy with increased side-effects.

Here, an effort has been made in search of its treatment. According to Ayurveda, the treatment is “Samprepti Vighatana”. So in case of SandhigataVata, treatment should be such that it makes Agni Shamana, Vata Shamana, Kapha Vridhdi (increase Snigdhaguna) and correct Khavaigunya. Here Dashanga Guggulu are selected for the present study which can serve above needs to treat the disease JanuSandhigataVata (Osteoarthritis).

OBJECTIVES OF STUDY  
To evaluate the efficacy of Dashanga Guggulu in JanuSandhigataVata.

MATERIAL AND METHODS  
Source of data: 30 patients, irrespective of gender, caste and social status will be selected for the study from IPD & OPD of SDM Ayurveda Hospital, Udupi. These patients will be administered Dashanga Guggulu.

Drugs: Dashanga Guggulu preparation is done from SDM pharmacy, Udupi, Karnataka.

Method of Data Collection: A special proforma will be prepared for recording the historical details, physical signs and symptoms of the patients. Lab investigations will be carried out as mentioned in allied sciences.

Study design: It will be a clinical study with pre and post-test design where in a minimum 30 patients suffering from JanuSandhiGataVata will be selected irrespective of their gender, caste and social status. Investigations and the parameters of signs and symptoms will be scored on the basis of standard method and will be analyzed statistically.
Intervention: Thirty patients are *Dashanga Guggulu* - 2 tablets of 500 mg will be administered **thrice a day** for 14 days. **Follow Up:** All the patients will be followed for 14 days after treatment with weekly interval.

Inclusion criteria
- Patients with prathyatmalkshana of Janu Sandhigata Vata.
- Patient with signs & symptoms of Osteoarthritis.
- Patients ageing 30 years to 70 years.

Exclusion criteria
- Patients below 30 years and above 70 years,
- Patient with Tuberculosis, Rheumatoid Arthritis, Systemic Lupus Erythematosus, Psoriatic Arthritis, Gouty Arthritis.

Assessment criteria
Signs and symptoms of JanuSandhigata Vata, Osteoarthritis are evaluated.
- Pain-Visual Analogue Scale (VAS)
- Morning Stiffness of knee joint.
- Swelling-girth of joint is measured with tape.
- Tenderness assessed by severity grade.
- Movement of joints-measurement is done with Goniometer.
- WOMCA- Index for Osteoarthritis.

Functional ability
1. Walking - time required to cover 30 metres in seconds.
2. 10 sit - ups time required in minutes.
3.10 steps climb time required in seconds.

Investigations
- **Haematological investigations**
  - Haemoglobin %, Total leucocytes count, Differential count.
  - Erythrocyte Sedimentation Rate, Random blood sugar.
- **Urological investigations**
  - Sugar, Albumin & Microscopic.
- **Radiological investigations**

Observations
It was observed that age, gender, habits/ addictions, prakruti, occupation and nature of work have certain degree of correlation with this disease. However, religion, level of education, marital status, socio-economic status, and diet could not be found to have a correlation with this disease.

**Effects of Treatment:** The assessment of results was made by adopting the standard methods of scoring questionnaires and the signs and symptoms of Janusandhigatavata. It included the assessment of pain, swelling, tenderness and functional disability.

**RESULTS**
The results of each parameter, in each of the group in the study are analyzed statistically with the paired T test. The details are as follows.

<table>
<thead>
<tr>
<th>1. Pain-Table No: 1. Pain in patients.</th>
<th>Difference in Mean</th>
<th>Standard Deviation</th>
<th>Standard Error of Means</th>
<th>Paired T test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>38.02</td>
<td>8.578</td>
<td>2.713</td>
<td>0.2058</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Morning Stiffness -Table No: 1. Morning Stiffness in patients.</th>
<th>Difference in Mean</th>
<th>Standard Deviation</th>
<th>Standard Error of Means</th>
<th>Paired T test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.800</td>
<td>0.349</td>
<td>0.110</td>
<td>0.3706</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>38.95</td>
<td>5.011</td>
<td>1.585</td>
<td>2.046</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. Tenderness- Table No: 1. Tenderness in patient A, B &amp; C Groups</th>
<th>Difference in Mean</th>
<th>Standard Deviation</th>
<th>Standard Error of Means</th>
<th>Paired T test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.350</td>
<td>0.411</td>
<td>0.130</td>
<td>1.035</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. Movement of Knee Joints-Table No: Movement of knee joints in patient</th>
<th>Difference in Mean</th>
<th>Standard Deviation</th>
<th>Standard Error of Means</th>
<th>Paired T test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>127.5</td>
<td>9.860</td>
<td>3.118</td>
<td>0.9343</td>
</tr>
</tbody>
</table>
6. Womac- Index - Table No: 1. WOMAC- Index in patient

<table>
<thead>
<tr>
<th>Difference in Mean</th>
<th>Standard Deviation</th>
<th>Standard Error of Means</th>
<th>Paired T test</th>
</tr>
</thead>
<tbody>
<tr>
<td>58.20</td>
<td>13.30</td>
<td>4.208</td>
<td>0.7211 0.4953</td>
</tr>
</tbody>
</table>

7. Functional ability
- Walking - time required to cover 30 meters in seconds - Table No: 1. walking time in patients

<table>
<thead>
<tr>
<th>Difference in Mean</th>
<th>Standard Deviation</th>
<th>Standard Error of Means</th>
<th>Paired T test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.500</td>
<td>0.527</td>
<td>0.166</td>
<td>0.000 &gt;0.0999</td>
</tr>
</tbody>
</table>

- 10 sit - ups time required in minutes - Table No: 1. 10 sit - ups time in patient

<table>
<thead>
<tr>
<th>Difference in Mean</th>
<th>Standard Deviation</th>
<th>Standard Error of Means</th>
<th>Paired T test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.300</td>
<td>0.674</td>
<td>0.213</td>
<td>0.05056 0.9508</td>
</tr>
</tbody>
</table>

- 10 steps climb time required in seconds - Table No: 1. 10 steps climb time in patient

<table>
<thead>
<tr>
<th>Difference in Mean</th>
<th>Standard Deviation</th>
<th>Standard Error of Means</th>
<th>Paired T test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.600</td>
<td>0.516</td>
<td>0.163</td>
<td>0.9101 0.4145</td>
</tr>
</tbody>
</table>


Table No: 1. Kellgren– Lawrence Radiographic Scale in patients

<table>
<thead>
<tr>
<th>Difference in Mean</th>
<th>Standard Deviation</th>
<th>Standard Error of Means</th>
<th>Paired T test</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.000</td>
<td>0.942</td>
<td>0.298</td>
<td>0.4345 0.6520</td>
</tr>
</tbody>
</table>

DISCUSSION
Selectivity and affinity are the principle parameters which characterize the interaction between drug and receptor. Samprapti Vighatana is said to be the treatment for JanuSandhi GataVata. Therefore, the drug is supposed to dismantle the Samprapti Ghatkas of the disease and establish a relationship between the same and penta fold principles of Rasa, Guna, Virya, Vipaka and Prabhava of the drug.

Dashanga Guggulu
Dashanga Guggulu was selected in form of oral administration. It is Tridoshanashaka, Shulahara, Vedana Sthapan, Shothahara, Deepana, Pachana and Rasayana. It is anti-inflammatory and analgesic too.(5) Chowkambha Sanskrit publications, Varanasi, Pp- 824; 407.

CONCLUSION
The Total Effect of the Therapy
- Maximum Improvement : 60%
- Moderate Improvement : 20%
- Mild Improvement : 20%
- No Improvement : 0%

Dashanga Guggulu as a shaman therapy has greater effect in improving the signs and symptoms of Janu Sandhigatavata.

BIBLIOGRAPHY