ROLE OF GUGGULUTIKTA GHrita IN THE MANAGEMENT OF OSTEOARTHRITIS W.S.R. TO KNEE JOINT

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ABSTRACT
Osteoarthritis is most widespread form of arthritis seen in elderly and knee joint pain is the most common complaint for which medical advice is sought in such conditions. Major treatment for osteoarthritis is prescription of established calcium compounds with NSAID’s. But with this established treatment also total eradication of the pain is not possible. Basti (a medicated enema) in Ayurveda is practiced in many connective tissue disorders like Rheumatoid Arthritis, Osteoarthritis, Gout, Lumbar Sprain, Spondylosis etc. The present study was conducted at L.K.Redekar Ayurveda College and PG Research Centre Gadhinglaj Dist Kolhapur, India, with the aim and objective of assessing efficacy and safety of Guggulutiktaka ghrita in the management Knee Osteoarthritis. It’s found that there is incredible role of guggulutiktaka ghrita in the management of sandhigatavata vis as vis Osteoarthritis

Keywords: Osteoarthritis, Guggulutiktaka Ghrita, Knee joint, Sandhigatavata

INTRODUCTION
Osteoarthritis is a foremost health problem considering its associated disability and impact on the quality of life. It is a leading cause of disability in elderly people1. Patients of osteoarthritis usually come with joint pain, stiffness and localized swelling which get worse in the morning and relieved after some movement in hour2. According to W.H.O. osteoarthritis is the second commonest musculoskeletal problem in the world population. In India osteoarthritis of knee joint is more common than hip joint3. The incidence prevalence and availability of subjects knee joint arthritis was taken for the subject of interest. Analgesics and NSAID’s relieve pain and improve function but prolonged use of these drugs may not be encouraged due to their adverse reactions. So it is a need of hour to find out alternate therapy to combat the pain as well as improve the quality of life of individual. A pilot clinical trial was designed to find out a solution to knee osteoarthritis with ‘Guggulutiktaka Ghrita’, which is vataghn (Vata pacifier) in nature. In Ayurvedic literature the Guggulu tiktaka ghrita is being used for treatment of asthimajja kshaya4 and also the combination explained in asthimajagata Vata. This drug is mentioned by Ashtanga Hridaya in the management of bones and associated disorders5.

MATERIALS AND METHODS
Selection of Patient
The patients were selected irrespective of cast, creed, religion, sex from OPD and IPD Department of L.K.R. Ayurveda Hospital, Kolhapur, India, in the duration of Jan 2011-June 2012. The study was performed as per the ethical clearance outward number: LKRSS/AMCG/WS/7/PG/39/2012

The patients were selected via randomly selection method. The patients were clinically assessed and diagnosed on the basis of history and clinical examination. The patient who had clinical sign and symptoms of osteoarthritis was selected as per inclusion and exclusion criteria.

Lab Investigations
• Hemogram
• RA Test
• ASO Titer
• Serum Calcium
• Serum Uric Acid

Inclusive Criterion
• Age group from 40 – 80 years.
• Clinically and radiologically diagnosed patients of Knee Osteoarthritis

Exclusive Criterion
• Diabetes, Hypertension and all systemic disorder which can hamper its treatment were excluded
• Age group below 30 and above 80 were excluded
• Patients of fracture, Rheumatoid arthritis, Gout

Intervention
Name of Drug: Guggulu tiktaka Ghrita.
Reference: Ashtanga Hridaya
Indication: Bones and associate disorders
Route: Oral
Dose: 20 g
Vehicle: Luke warm water
Frequency: Once in a day
Timing: Early in the morning
Duration: 45 Days

Drug Review

Guggulutiktaka ghrita is mentioned in Ashtanga Hridaya. Ghrita was prepared as mentioned in sharandhara samhita. Guggulutiktaka Ghrita contains
- Nimba (Azadirecta indica)
- Amrita (Tinospora cordifolia)
- Patol (Tricosanthis cucumerina)
- Kantakari (Solanum xanthocarpum)
- Vamsha (Bambusa arundinacceae)
- Amalaki (Emilica officinalis)
- Bibhitaki (Terminalia belerica)
- Haritaki (Terminalia chebula)
- Shunthi (Zinziber officinale)
- Maricha (Piper nigrum)
- Pippali (Piper longun)
- Musta (Cyperus rotundus)
- Haridra (Curcuma longa)
- Daruharidra (Berberis aristata)
- Vatsaka (Holarhena antidysentrica)
- Pippalimula (Piper longum Radix)
- Chitraka (Plumbago zylenica)
- Bhallataka (Sectiporus anacardium)
- Katuki (Picrorhiza kurrora)
- Ativisha (Acontium heterophyllum)
- Vacha (Acorus calamus)
- Vidanga (Emilida ribes)
- Yavakshara
- Sajjikshara

Assessment criteria

Subjective parameters
- Pain in the knee joints.
- Local Tenderness
- Morning stiffness duration.
- Localized swelling

The all gradation were adopted as per WOMAC Gradation Scale.6

Objective parameters

Angle of extension and flexion (Goniometry)

OBSERVATIONS AND RESULTS

Table 1: Observations of Study

<table>
<thead>
<tr>
<th>N</th>
<th>Observation</th>
<th>Max Observation</th>
<th>Max no</th>
<th>%</th>
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<tbody>
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<td>31</td>
<td>Sex</td>
<td>Male</td>
<td>22</td>
<td>74.19</td>
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<tr>
<td>31</td>
<td>Age Group</td>
<td>51-70</td>
<td>26</td>
<td>83.87</td>
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<tr>
<td>31</td>
<td>Prakriti</td>
<td>Vata Kaphaja</td>
<td>16</td>
<td>51.61</td>
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<tr>
<td>31</td>
<td>BMI</td>
<td>Normal Wt 18.5 to 24.9</td>
<td>23</td>
<td>74.19</td>
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<tr>
<td>31</td>
<td>Habitat</td>
<td>Rural</td>
<td>26</td>
<td>83.87</td>
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<tr>
<td>31</td>
<td>Religion</td>
<td>Hindu</td>
<td>30</td>
<td>96.77</td>
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<tr>
<td>31</td>
<td>Occupation</td>
<td>Agriculture</td>
<td>17</td>
<td>54.83</td>
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<tr>
<td>31</td>
<td>Educational Status</td>
<td>Poor</td>
<td>22</td>
<td>70.96</td>
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<tr>
<td>31</td>
<td>RA Test</td>
<td>Positive</td>
<td>12</td>
<td>38.70</td>
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<tr>
<td>31</td>
<td>ASO Titer</td>
<td>Positive</td>
<td>14</td>
<td>45.16</td>
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<tr>
<td>31</td>
<td>Sleep</td>
<td>Disturbed</td>
<td>16</td>
<td>51.61</td>
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<tr>
<td>31</td>
<td>Koshta</td>
<td>Kura</td>
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<td>51.61</td>
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<tr>
<td>31</td>
<td>Mala</td>
<td>Irregular</td>
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<tr>
<td>31</td>
<td>Mutra</td>
<td>Regular</td>
<td>19</td>
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<tr>
<td>31</td>
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<td>Irregular Non veg Mixed</td>
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<td>80.64</td>
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<tr>
<td>31</td>
<td>Diet Habit</td>
<td>Vishamsana</td>
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<tr>
<td>31</td>
<td>Nature of work</td>
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<td>51.61</td>
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<tr>
<td>31</td>
<td>Nutrition</td>
<td>Poor</td>
<td>18</td>
<td>58.06</td>
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Table 2: Statistical Analysis of Assessment parameter by Wilkoxn sign rank test

<table>
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<tr>
<th>Sign and Symptoms</th>
<th>N</th>
<th>Median</th>
<th>25%</th>
<th>75%</th>
<th>W</th>
<th>t</th>
<th>P</th>
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<tbody>
<tr>
<td>Localized swelling</td>
<td>31</td>
<td>BT</td>
<td>27.0000</td>
<td>24.250</td>
<td>28.750</td>
<td>-378.0</td>
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</tr>
<tr>
<td>Duration of morning Stiffness</td>
<td>31</td>
<td>BT</td>
<td>60.000</td>
<td>32.500</td>
<td>120.00</td>
<td>-496.0</td>
<td>-496.0</td>
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<tr>
<td>Tenderness</td>
<td>31</td>
<td>BT</td>
<td>2.000</td>
<td>2.000</td>
<td>3.000</td>
<td>-406.0</td>
<td>-406.0</td>
</tr>
<tr>
<td>Pain In Knee Joints</td>
<td>31</td>
<td>BT</td>
<td>3.000</td>
<td>3.000</td>
<td>3.000</td>
<td>-465.0</td>
<td>-465.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AT</td>
<td>1.000</td>
<td>0.000</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>AT</td>
<td>1.000</td>
<td>0.000</td>
<td>1.000</td>
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Table 3: Statistical Analysis of Assessment parameter by paired t test

<table>
<thead>
<tr>
<th>Sign and Symptoms</th>
<th>N</th>
<th>Mean</th>
<th>MD</th>
<th>SD</th>
<th>SEM</th>
<th>T</th>
<th>P</th>
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</thead>
<tbody>
<tr>
<td>Angle of Extension and Flexion</td>
<td>31</td>
<td>BT</td>
<td>95.613</td>
<td>36.355</td>
<td>18.457</td>
<td>3.315</td>
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<tr>
<td></td>
<td></td>
<td>AT</td>
<td>59.258</td>
<td>17.344</td>
<td>3.115</td>
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As per statistical analysis it was found that Guggulutiktaka Ghrita have significant role in reducing all subjective and objective parameters of Knee joint arthritis with p value < 0.001.

**DISCUSSION**

The disease is found in elderly, in dry and suburban region, the male is more prone to disease due to physical hard work. The malnourish peoples found more in particular study. The overall improvement in various clinical parameters according to Ayurveda might be a result of elimination of vitiated Vatadosha and decrease in the dhatukshaya and also reducing the inflammation by the application of tiktarasa dravyas. There was no any adverse effect noticed during or after the treatment. It was not known that what is the role of this therapy in long term management of osteoarthritis. Does it recur or not or it vanishes totally. For this purpose a separate study may be beneficial.

**CONCLUSION**

On the basis of this pilot study we can say that administration of Guggulutiktaka Ghrita is an effective medicine in reduction of pain, swelling, tenderness and restrictions to movements without any noxious effect which is very important.

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**REFERENCES**


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