



ISSN: 2395-6429

EVALUATION OF EFFICACY OF MOOLAKADYA TAILA JANUVASTI IN SANDHIGATAVATA (GONOARTHRISIS)

Ashwini V. M., Prasad K S R and Punam Sawarkar

¹Dept of Panchakarma Mahatma Ganndhi Ayurved College, Hospital & research Center Salod, Wardha

ARTICLE INFO

Article History:

Received 20th August, 2017

Received in revised form 13th
September, 2017

Accepted 7th October, 2017

Published online 28th November, 2017

Key words:

Sandhigatavata, Gonoarthritis
Januvasti, Moolakadya taila,
Shothahara, Vedanahara

ABSTRACT

Sandhigatavata is a clinical entity which is described by almost all the Acharyas. They have mentioned clinical features like *Sandhishotha*, *Sandhishoola*, *Sandhiatopa* etc. which are resemblance to the Osteoarthritis of Knee joint (Gonoarthritis). The current medications generally used in contemporary science which have analgesic, anti-inflammatory effect. Most of them are hepato and nephron-toxic. On the other hand the Ayurveda has described the very wide role of *Snehana* and *Swedana* in the management of *Vatavyadhi*. *Januvasti* is retention of oil. *Moolakadya taila* which is used for the *Januvasti* is having *Shothahara* and *Vedanahara* property which will counteract the disease. The present study 30 patient were selected randomly they have subjected for the treatment *Januvasti* with *Moolakadya taila* for 7 days. The subjects were assessed before treatment, after treatment and follow up after 7 day. Total duration of treatment was 28 days. So it is an attempt to know the action of *Januvasti* with *Moolakadya taila* in the management of *Sandhigatavata*.

Copyright © 2017 Anuradha. R. Bindu et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

Sandhivata (Gonoarthritis) is a Musculo-skeletal disease, involves the all Major Joints. Present day life style and diet variation draws an attention of increased prevalence of osteoarthritis (OA). Only 25-30% of OA is a symptomatic even though prevalence rate is about 80% at the age of 60 years. At present, it is most common and considerable in older women in comparison to men. In contemporary medicine, analgesics, anti-inflammatory and cortico-steroids used may temporally resolve the problem, but these drugs are not capable of correcting the problem. Thus increases the risk of gastric irritation, hepato and nephro-toxicity etc¹. Many systems of medicines have drawn much attention towards the curing or limiting the disease with the different modalities. So, the present study with traditional Ayurveda treatment is brought out here in this clinical trial for study. *Sandhigatavata* is initially enlightened from *Charaka*² later adopted by almost all the acharyas and gave in detail about the disease. They have dealt this disease along with management as a part of *Vatavyadhi*. *Vasti* is the priority treatment for *Vata*. Many types of *Vasti* are practiced other than that of *Vasti* (Enema). They are according to the placement viz. *Hrut Vasti* (on Heart), *Shiro Vasti* (on Head), *Kati Vasti* (on Back), *Vrana Vasti* (on ulcer), and *JanuVasti* (on Knee)¹ etc. Here in the present study, *JanuVasti* is undertaken for the management of

Sandhigatavata with the *Moolakadyatail*³ that acts as pain reliever and *Vata* pacifier. The line of treatment in *Sandhi Vata* is *snehana*, *swedana* and *agnikarma*⁴. *JanuVasti* is an adapted form of *shiro Vasti*. The word *Vasti* is used here with the meaning of "To reside" or "To retain". In *Janu Vasti* the medicine is made to retain over the *Janu sandhi* for a prescribed time. The medicated oil made to retain over the *Janu* (knee) through which we induce the *snehana* and *swedana* effect simultaneously.

MATERIALS AND METHODS

Aim

Evaluation of efficacy of *Moolakadya Taila Januvasti* in *Sandhigatavata* (Gonoarthritis)

Objective

1. To evaluate the efficacy of *Januvasti* with *Moolakadya Taila* in *Sandhishotha* (Joint edema).
2. To evaluate the efficacy of *Januvasti* with *Moolakadya Taila* in *Sandhishool* (Joint pain).

Source of data

Subjects fulfilling the criteria with preset inclusion and exclusion for *Sandhigatavata* were selected from

Panchakarma OPD of Mahatma Gandhi Ayurveda College Hospital and Research Center, Salod (H), Wardha.

Overall assessment of the clinical response

- Major improvement-60-100%
- Moderate improvement- 30-59%
- Mild Improvement- 29-10%
- Unchanged – 0-10%

Table no1 Composition of trial drug

Sr. No.	Sanskrit name	Botanical name	Sr no	Sanskrit name	Botanical name
1	Bala	Sidacardifolia	14	Sunthi	Zingiberoffinalis
2	Chitraka	Plumbagozylanica	15	Pushkarmoola	Inularecemos
3	Saindhava	Rock salt	16	Kachoor	Hedychiumspicatum
4	Pippali	Piper longum.	17	Bilva	Aeglemarmelos
5	Ativisha	Aconitum heterophyllum	18	Shatpushpa	Foeniculumvulgare
6	Rasna	Alpiniaoffinarum	19	Tagara	Valerianawallichii
7	Chavya	Piper choba	20	Devdaru	Cedrusdecadara
8	Agaru	Aqualariaagollacha	21	Moolak	Raphanusstivus
9	Chitrak	Plumbagozylanica	22	Tilataila	Sesamumindicum
10	Bhallatak	Semcarpusanacardium	23	Dugdha	Milk
11	Vacha	Acoruscalamus	24	Dadhi	Curd
12	Kushta	Saussuralappa	25	Kanji	Sour gruel
13	Gokshur	Tribulusterstrius			

Inclusion criteria

- Patients suffering from the *Sandhigataavata* (Unilateral primary osteoarthritis M17.1 of ICD- 10 criteria) and having its clinical features like *vatapurnadrutisparsha*, *shotha*, *prasaranakunchanasavedana*
- Age of the patients between 45 to 75 years.

Exclusion criteria

- Patients below 45 and above 75 years of the age.
- Unilateral post traumatic Osteoarthritis - M 17.3
- Other unilateral secondary Osteoarthritis – M 17.5
- Osteoarthritis knee Unspecified- M 17.9
- With any local skin disease on knee excluded as the oil is stored on the knee directly.
- Pregnant women
- Associated with any local (Knee) fractures

From all the patient written consent was obtained and routine blood investigations and specific investigations were performed

Intervention

Patients were subjected to the Januvasti with Moolakadya taila for 14 days daily for about 35-40 minutes.

Assessment criteria:

Subjective parameter

1. **Pain scale:** - Minor (Grade 0-4) Able to adopt to pain, Moderate (Grade 5-7) Interfere with many activity, Severe (Grade 8-10) Patient is disabled and unable to function independently
2. **Shotha (Swelling):** Grade 1- No compliant, Grade 2 - Slightly obvious, Grade 3 - Cover well over the bony prominence, Grade 4 - Much elevated
3. **Prasaranakunchana Sputana (crepitus):** Grade 1- No crepitus, Grade 2 - Palpable crepitus, Grade 3 - Audible crepitus

Objective parameters

- A. WOMAC Scale
- B. Goniometric reading
- C. Swelling by measuring tape
- D. Local temperature
- E. Walking time

Duration of the study: - Januvasti with Moolakadya Taila had done daily for 14 days approximately for 25-30 minutes. Follow up after 14 days. Total duration of the study is 28 days

Investigation: CBC, ESR, RBS, Urine examination, RA factor, CRP, Serum Uric acid, Serum creatine, X ray knee joint AP and Lateral view

Statistical analysis and result

Table No 1 Subjective Parameter

Parameter	Mean BT	Mean AT	% of Improvement	t-value	P value
Vedana (Pain)	6.90±0.75	3.56±0.62	41%	22.75	0.0001,S
Prasaranaakunchanasputana (Crepitus)	1.33±0.47	1.10±0.30	11.66%	2.97	0.006,S
Shotha (Swelling)	1.86±0.34	0.36±0.49	76.66%	14.35	0.0001,S

The overall effect of treatment on subjective parameters for vedana shows $t=22.75$, p value is equals to 0.0001 which shows statistical significant difference before and after treatment. Crepitus shows $t=2.97$, p value is equals to 0.006 which shows significant difference before and after treatment in crepitus. Shotha also shows significant difference before and after treatment ($t=14.35$).

The mean value of Vedana before treatment was $6.90±0.75$, mean value of Prasaranaakunchanasputana was $1.33±0.47$

Table no 2 Improvement of Subjective parameters

Subjective parameters	Mean BT	Mean AT	% improvement
All Subjective parameters	8.85	4.78	45.98%

All subjective parameters mean before treatment 8.85 and after treatment 4.78. The percentage of improvement is 45.98%

Table no 3 Statistical analysis Objective Parameters

Parameter	Mean BT	Mean AT	% of Improvement	t-value	P value
GMR	76.66±17.17	113.26±12.29	47.74	13.00	0.0001
SMT	39.69±1.31	37.95±1.23	4.38	9.68	0.0001
Local Temp	98.86±0.86	98.40±0.00	0.46	2.97	0.006
Walking time	37.76±4.70	26.40±4.03	30.08	14.20	0.0001
WOMAC scale	0.91±0.04	0.48±0.09	47.25	25.39	0.0001

The overall improvement of the objective parameters shows statistically significance difference before treatment and after treatment

DISCUSSION

Mode of Action of Januvasti

Ayuurvedic View

Out of the four Tiryakadhamanis, each divides and gradually hundred and thousand times and thus become innumerable; by these the body is covered like network, bound and pervaded; their openings are attached to the hair follicles which carry sweat and replenish rasa inside and outside, through them only viryas (active fractions) of abhyanga, parisekaa lepa enter into the body after being transfer in skin. One more reference in Sushruta Chikitsasthana explains – Sneha used in Avagaha produces ShareeraBala by saturating through Siramukha, Romakooopa and Dhamani. Sushruta in Sutrasthana explains, Lepa the Bahirparimajana treatments yield result by entering to Romakooopa thereby circulating through Swedavaha Srotas. Bhrajak pitta situated in the skin having its important role in the Pachana (Assimilation) and Shoshana (Absorption) of the drugs used in for Abhyanga, lepa etc. (Local application).

Modern view

The application of medication to the skin to ease ailment is a practice that has been utilized by human kind over millennia and has included the application were primarily intended for a local topical effect. Human skin consists of 3 main layers – the epidermis, dermis and hypodermis. The epidermis, in particular the stratum corneum acts as the major barrier to drug absorption. The stratum corneum contains only 20% of water and is highly lipophilic membrane. An applied drug must transvers these structure layer encountering several lipophilic and hydrophilic domains on the way to the dermis where the absorption into the systemic circulation is rapid due to large capillary bed. Removing the stratum corneum speeds the diffusion of small water soluble molecule into systemic circulation by up to 1000 times.

Possible mode of action of Moolakadya Taila

The contents of the moolkadya taila (Table no 1) shows that most of the drugs having vatahara, ushna and tikshna properties, this property help in the pacification of vata and penetration of the drug.

CONCLUSION

From the above study it can be concluded that the Moolkadya taila januvatsti is effective in the management of subjective parameters of Sandhigatavata. The oil stored on the janu sandhi get absorbed through the romakupa and goes to the asthi dhatu give nourishment and gives the desired effect of Shothahara and vedana sthapaka action.

References

1. Doherty. M, Raston SH, Musculoskeletal diseases, Nicki R. Colledged, Davidson's, Principles & Practice of Medicine, 21sted, 2010, Churchill livigstone , El Ltd , US, p1083
2. Vidyadhar Shukla and Ravidatta Tripathi ed, Charak Samhita Sutra: 20/11, 1sted, 2007, reprint, Vrajajivan Ayurvijnana Granthamala 24 Chaukhamba Sanskrit pratishthan Dehli p 293
3. Indradev Tripathi ed, Chakradatta 22/146-148, 2202 fourth edition reprint kashi sanskrita granthamala 252 chaukhamba varanasi p.145
4. Ambhikadutta Shastri,ed, Sushruta Samhita chikitsa 4/21-26, 1sted, 2014, reprint Kashi Sanskrit series 156 Chaukhamba Shastrisamsthana Varanasi p.35
