

EFFECT OF DASHAMULABALADI KASAYA AND PANCHAKARMA CHIKITSA IN JANUSANDHIGATAVATA W.S.R. TO OSTEOARTHRITIS OF KNEE

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Published online: September, 2018

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ABSTRACT

Due to rapid urbanization and excessive workloads lifestyle becomes stressful and individuals suffer from various degenerative diseases. One such disease is Osteoarthritis whose prevalence ranges from 22 – 39% in India. Ageing and obesity are the major risk factors for its increased prevalence. In *Ayurveda*, it can be correlated with *Sandhigata vata*, a disease of *vata* origin which occurs due to *vatavardhaka ahara vihara sevana* and *asthidhatu kshaya*. The present study was conducted at Institute of Post Graduate Ayurvedic Education & Research, *Shyamadas Vaidya Shastra* Pith Hospital on 40 patients of *Janusandhigata vata* which was divided into two groups. Group A: 20 patients treated with *Dashamulabaladi Kashaya* in the dose of 20ml twice daily in empty stomach for 2 months and Group B: 20 patients treated with oral administration of *Dashamulabaladi Kashaya* along with *Matravasti* and *Januvasti* with *Eranda taila* for 21 days. The result was found to be highly significant in group B. Drugs like *Dashamula*, *Bala*, *Shigru* etc. plays an important role in subsiding the symptoms of this disease and allied Panchakarma therapy is the key for overcoming from this type of diseases.

Keywords: *Asthidhatu*, *Dashamulabaladi Kashaya*, *Matravasti*, Osteoarthritis, *Sandhivata*.

INTRODUCTION

Ayurveda, the ancient science of life aims to provide longevity by its preventive, promotive and curative aspects. In today's era of rapid globalization, meta-

bolic and degenerative lifestyle disorders of connective tissue and joints are quite affluent due to consumption of incompatible diets (*viruddhahara*) and

excessive workloads. During different stages of human life, disease prevalence is common due to genetic, systemic, infection, environmental, age related factors and so on. Osteoarthritis is a most common degenerative disease representing gradual impairment of diarthrodial joint and is characterized by degeneration of articular cartilage, osteophytes formation along with proliferation of new bone cartilage and connective tissue leading to chronic disability in old age¹. Epidemiologically, the prevalence of osteoarthritis ranges from 22 – 39% commonly seen in females in India. It is estimated that age, sex, body weight, trauma, genetic factors plays an important role in the genesis of osteoarthritis². In *Ayurveda*, Osteoarthritis can be correlated with *Sandhivata* owing to its similarities with its clinical features. *Sandhivata* is a *vataja* disease which occurs due to *vatavardhaka ahara vihara sevana*³ and *asthidhatu kshaya* and is characterized by *sandhisula* (pain), *sotha* (swelling in the joints), *prasarana akunchana pravrittischa vedana* (pain during flexion and extension of joints), *Vatapurnadritisparsha* (coarse crepitus in the joints), *sphutana*³ (restricted movement of joints) and thus hampers the daily activities of an individual. The treatment principle of *sandhivata* includes *Abhyanga*, *swedana*, *mridu samsodhana*, *vasti*, *upanaha*⁴ etc

Aim & Objectives

Modern medicine reduces the pain in osteoarthritis by administration of Non Steroidal Anti-Inflammatory Drugs and analgesics which provides symptomatic relief but has its adverse effects such as G.I disturbances⁵, renal abnormalities, dizziness, skin rashes etc on prolonged usage. Thus, a lack of satisfactory regimen in the field of health rolls back the wear and tear of the joints. So, here an effort was made to treat *janu sandhigatavata*.

1. To evaluate the efficacy of *Dashamulabaladi Kashaya* and *Matravasti* and *Januvasti* in the management of *Janu sandhigatavata*.

2. To compare the effect of the drug and allied *panchakarma* therapy clinically.
3. To find out effective remedial measure with minimal side effects for the disease.

MATERIALS & METHODS

Total 40 patients of newly diagnosed cases of *janu sandhigatavata* fulfilling the selection criteria were registered for the study from the OPD and IPD of Kayachikitsa, Institute of Post Graduate Ayurvedic Education & Research, Shyamadas Vaidya Shastra Pith Hospital, Kolkata – 700009 after taking written informed consent from the patient. Further authentication of raw materials of the drug was done from the Pharmacy department of Institute of Post Graduate Ayurvedic Education & Research, *Shyamadas Vaidya Shastra* Pith Hospital, Kolkata.

Study Design:

Step – I: Selection of patients as per selection criteria from the OPD of Kayachikitsa Department of Institute of Post Graduate Ayurvedic Education & Research, Shyamadas Vaidya Shastra Pith Hospital, Kolkata

Step – II: Confirmation of diagnosis by clinical and laboratory findings.

Step – III: Informed consent taken from the patients.

Step – IV: Patients were divided into the respective groups.

Step – V: Drop out were registered from the trial.

Step – VI: Results of the effects of treatments were assessed.

Step – VII: Statistical analysis of the result.

Inclusion Criteria

1. Patients of both sexes between 40 – 70 years.
2. Patients presenting with clinical signs and symptoms i.e. *sandhisula* (pain), *sotha* (swelling of joints), *stambha* (stiffness), *sphutana*³ (restricted movement), *akunchana prasarana vedana* (pain during flexion and extension of the joint),

Vatapurnadritisparsha (coarse crepitus in the joints) etc.

3. Patients with osteophyte formation.
4. Patients with reduced joint space.

Exclusion Criteria

1. Patients having history of rheumatoid arthritis, gouty arthritis etc.
2. Patients having history of uncontrolled diabetes mellitus.
3. Patients having history of hypertension, heart disease and other systemic diseases.
4. Patients having history of pregnancy and lactation.
5. Patients associated with other concomitant diseases.

Grouping of Patients

The patients were randomly (every alternate patients of both groups) selected and divided into two groups with twenty patients in each group:

Group A – Twenty patients were treated with *Dashamulabaladi Kashaya* in the dose of 20ml twice daily in empty stomach with equal quantity of water as *anupana* (due to its bitter taste) for 2 months.

Group B – Twenty patients were treated with oral administration of *Dashamulabaladi Kashaya* in the dose of 20ml twice daily in empty stomach with equal quantity of water as *anupana* for 2 months along with *Matravasti* with 60ml of *Eranda taila* and *Januvasti* with *Eranda taila* for 21 days.

Follow Up: The patients were followed at an interval of fifteen days.

Assessment Parameter:

The patients were assessed on the basis of relief of signs and symptoms and a scoring pattern was aligned following Visual Analogue Scale.

Subjective Parameter:

1. Pain in the knee joint.
2. Stiffness of knee joint.
3. Swelling of knee joint.
4. Walking time.
5. Range of movement.

Objective Parameter:

On the basis of hematological, biochemical and radiological findings

Statistical Analysis:

Student paired ‘t’ test has been adopted for the assessment of the drug therapy (p < 0.05) which were interpreted manually.

OBSERVATIONS & RESULTS

Demographic study reveals that maximum patients i.e.70 % were in 50 – 60 years age group, 60% were female, 60% were housewives and labour, 80% were belonging to middle socio – economic status, 40% completed secondary education, 40% patients had *visamagni*, and in 55% cases bowel habit was constipated. Further effects of therapy on various parameters are presented in Table – 1, Table – 2.

Table 1: Effect of *Dashamulabaladi Kashaya* in Group A patients of *Janusandhigatavata*

Cardinal Features	Mean BT	Mean AT	Percentage of Relief	SD	SE	‘t’ test	P value
<i>Sandhisula</i>	3.5	2.95	15.71%	1.35	0.30	1.83	< 0.05
<i>Sandhisotha</i>	3.8	2.4	36.84%	0.47	0.11	4.68	< 0.001
<i>Sandhisphutana</i>	2.1	0.7	66%	0.78	0.29	2.84	< 0.10
<i>Sandhigraha</i>	2.5	1.7	32%	0.78	0.29	2.65	< 0.10
<i>Sparsha-asahatwa</i>	1.14	0.28	75.43%	0.69	0.26	3.29	< 0.05
<i>Akunchana Prasarana Vedana</i>	1.79	0.71	60.96%	0.90	0.34	3.75	< 0.05

* SD = Standard Deviation, SE = Standard Error, P value = Level of Significance.

Table 2: Effect of *Dashamulabaladi Kashaya* along with *Matravasti* and *Januvasti* in Group B patients of *Janusandhigatavata*

Cardinal Features	Mean BT	Mean AT	Percentage of Relief	SD	SE	't' test	P value
<i>Sandhisula</i>	3.5	1.7	52.4%	0.83	0.15	11.84	< 0.001
<i>Sandhisotha</i>	2.8	1.2	57.2%	0.89	0.10	9.82	< 0.001
<i>Sandhisphutana</i>	3.3	1.3	60.6%	0.87	0.16	13.10	< 0.001
<i>Sandhigraha</i>	3.2	1.5	53.1%	0.84	0.15	11.11	< 0.001
<i>Sparsha-asahtwa</i>	2.14	0.85	60.28%	0.75	0.28	4.51	< 0.001
<i>Akunchana Prasarana Vedana</i>	2.8	1.4	50%	1.01	0.18	7.57	< 0.001

* SD = Standard Deviation, SE = Standard Error, P value = Level of Significance.

DISCUSSION

Among the diseases of locomotor system, osteoarthritis is the most common painful condition which causes wear and tear of the joints and leads to disability. It is a degenerative, inflammatory disorder which causes pain, swelling and restricted movements of joints. On movement, excruciating pain occurs which becomes unbearable even on mild touch and results in the formation of crepitus. Group – A patients showed significant effect in mitigating symptoms like *sandhisula*, *sparsha-asahtwa* and *akunchana prasarana vedana* whereas Group – B patients showed highly significant effect in mitigating overall symptoms like *sandhisula*, *sandhisotha*, *sandhisphutana*, *sandhigraha* etc. Thus Group B yielded better results as compared to Group A as it contains both shamana and allied panchakarma which helps in quick reduction of the disease. *Dashamulabaladi Kashaya* contains ingredients such as *Bala*, *Dashamula (Bilva, Agnimantha, Gambhari, Shyonaka, Patala, Brihati, Kantakari, Gokshura, Salaparni, Prishniparni), Shigru* which possess *sothahara*⁶ *balya* property which reduces swelling and provides strength to the joints. *Matravasti* has anti inflammatory, immunological and *rasayana* property⁷ which prevents the recurrence of disease and also eliminates the toxins from the body which prevents the formation of *ama*. *Eranda taila* possess *laghu, snigdha, ushna, tikshna guna*⁸ which antagonizes *vata*. The *snigdha guna* of *taila* antagonizes the *rukshata* of *vayu* and *tikshna*

guna removes the *srotodushti* due to *sanga*. Thus *matravasti* directly pacifies *apana vayu* and restores the equilibrium of *agni* which controls both *samana* and *prana vayu Januvasti* due to its local *snehana* and *swedana*⁹ effect relieves stiffness and pacifies the morbidity of *vata* in the affected joint, muscles, soft tissue and brings lightness to the affected part and increases the tone of the muscles which increases the working of tissues in the body.

CONCLUSION

Dashamulabaladi Kashaya along with *Matravasti* and *Januvasti* possess the therapeutic potential in mitigating the pain, stiffness, swelling of joints and is effective in decreasing the restricted movement of joints. Further no any adverse effect of *Dahamulabaladi Kashaya* along with *Matravasti* and *Januvasti* was seen. Hence, it can be concluded that *Dashamulabaladi Kashaya* along with *Matravasti* and *Januvasti* with *Eranda taila* is effective in the management of *Janu sandhigatavata*.

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Source of Support: Nil

Conflict Of Interest: None Declared

How to cite this URL: Dubey Ashutosh et al: Effect Of Dashamulabaladi Kasaya And Panchakarma Chikitsa In Janusandhigatavata W.S.R. To Osteoarthritis Of Knee. International Ayurvedic Medical Journal {online} 2018 {cited September, 2018} Available from: http://www.iamj.in/posts/images/upload/1335_1339.pdf