



EFFICACY OF DEODARVYADI CHURNA WITH ARAND OIL IN LUMBAR SPONDYLOSIS

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ABSTRACT :

Osteoarthritis of the cervical and lumbar spine is referred to as spondylosis. Lumbar Spondylosis is a chronic, progressive, skeletal degenerative disease which is common in elderly. In this study total 10 patients suffering from Lumbar Spondylosis were selected. *Deodarvyadi churna* 3gm BD with *Arand* oil 5ml was given with warm water twice a day before food for 2 months duration. Pain and function assessment done by Western Ontario and McMaster Universities OA index (WOMAC scale) and VAS (Visual analog Scale) Scale pre-study and at every monthly visit at D.Y. Patil School of Ayurved and Research Institute, Nerul, Navi Mumbai. The Statistical Analysis was done by Wilcoxon matched pairs signed rank test. Patients showed improvement gradually in back pain on WOMAC, VAS scales and average weight reduction up to 2kg was also noticed after 8 weeks. Patients of Lumbar Spondylosis improved at level of significance $p < 0.0001$ for WOMAC scale and weight & $p < 0.0002$ for VAS scale. *Deodarvyadi churna* improve overall digestion (*Aampachan*) of patient due to its penetrating hot properties (*ushna tikshna guna, katu rasa, ushna virya and katu vipaka*). *Aranda* oil is doing *amapachan* and *vatanuloman* and relieving pain associated with lumbar Spondylosis. According to Ayurveda *margavarodhajanya Katigatavata* patients showed improvement with *Deodarvyadi Churna* with *Aranda* Oil. So *Devadarvyadi Churna* with *Aranda* Oil is significantly useful in relieving symptoms and improving movements of patients of Lumbar Spondylosis.

Keywords : Lumbar Spondylosis, *Devadarvyadi Churna*

INTRODUCTION: Low back pain is one of the most common musculo-skeletal disorders. The common cause of Low back pain is Lumbar Spondylosis. Osteoarthritis of Lumbar spine is referred as spondylosis. Lumbar Spondylosis is a chronic, progressive, degenerative disorder. This disorder is common in the elderly. In Lumbar Spondylosis there may be involvement of the intervertebral disk spaces or the posterior spinal facet joints. Disk degeneration may be complicated by protrusion of the nucleus, causing nerve root compression with radicular pain or muscle weakness. As

Lumbar Spondylosis is a chronic, degenerative disease long term treatment is required. In modern medicine mostly NSAID are used. NSAIDs block the synthesis of prostaglandins and prolonged use of NSAID drugs produce serious adverse effects like Gastrointestinal complications, acidity, Gastritis and even Gastric ulcers³. There is no cure for Lumbar Spondylosis, and no therapy is known to prevent or retard the degenerative biologic process in articular cartilage. Thus, the treatment of Lumbar Spondylosis is focused primarily on

relieving symptoms and improving function.

Deodarvyadi Churna is collection of Herbs having properties which are useful for reduction of pain and swelling in the patients of Lumbar Spondylosis. *Deodarvyadi churna* improve overall digestion (doing Aampachan) of patient due to its penetrating hot properties (*ushna tikshna guna*).

AIMS AND OBJECTIVES:

- To see efficacy of *Deodarvyadi churna* in Lumbar Spondylosis.
- To assess pain and function management with use of *Deodarvyadi churna* with *Arand oil* in Lumbar Spondylosis.

MATERIAL AND METHOD

*Deodarvyadi churna*¹ described in Bhaishajya Ratnavali was used. It contains...

Sr.No.	Sanskrit Name	Latin Name	Quantity per dose
1	<i>Deodaru</i>	Cedrus deodaru	500mg
2	<i>Vacha</i>	Acorus Calamus	500mg
3	<i>Musta</i>	Cyperus rotundus	500mg
4	<i>Shunthi</i>	Zingiber Officinale	500mg
5	<i>Ativisha</i>	Aconitum heterophyllum	500mg
6	<i>Haritaki</i>	Terminalia chebula	500mg

All of above herbs are taken in Churna form and mixed together in equal quantities.

- *Dose of Medicine - Deodarvyadi churna 3gm BD with Arand (Ricinus communis) oil 5ml.*
- Anupan - warm water
- *Aushadhi Sevan Kala - Before food*
- Duration of Treatment- 2 months

SAMPLE SIZE: 10 patients who fulfilled inclusion criteria were randomly selected for this study.

INCLUSION CRITERIA:

- 1) Men and women age 20-years or older.
- 2) Patients with symptomatic Lumbar Spondylosis as defined by the

STUDY DESIGN: Total 10 patients were selected from OPD of D.Y. Patil School of Ayurved and Research Institute, Nerul, Navi Mumbai for this Trial. Patients suffering from Lumbar Spondylosis were screened for inclusion in the trial. Pain and function assessment done by Western Ontario and McMaster Universities OA index (WOMAC scale) and VAS Scale. Before enrollment of the patient for this study, clinical examination of each patient carried out at D.Y. Patil School of Ayurved and Nerul, Navi Mumbai. Clinical assessment of enrolled patients done by WOMAC and VAS scale- pre-study and at every monthly visit for two months.

American College of Rheumatology criteria.

- 3) At least moderate pain in lower back (rated at 40 or greater by the subject on a visual analogue scale) during the most painful lower back pain during the last month.
- 4) Use of analgesic or anti-inflammatory agents for control of pain for at least seven days during the last month.
- 5) Baseline functional capacity class 1 to 3, in which class 1 is complete ability to carry out usual activities without handicap, class 2 is ability to adequately conduct usual activities despite of discomfort or limited mobility of Lumbar Spines, and class 3

is limited ability to carry out usual activities. (American Rheumatism Association functional class).

- 6) Clinical and /or radiological evidence of osteoarthritis of Lumbar Spine i.e Lumbar Spondylosis

EXCLUSION CRITERIA:

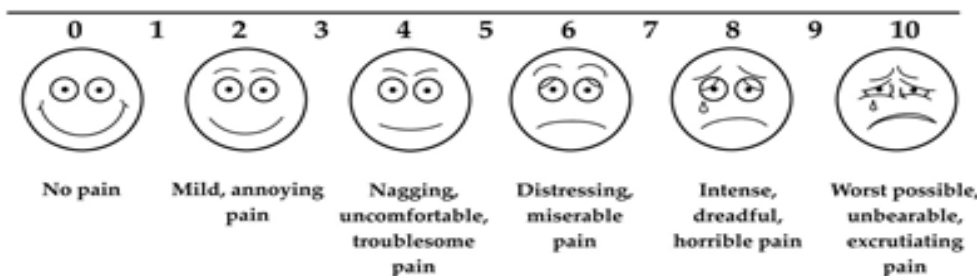
- 1) Body mass index (BMI) equal to or greater than 35 kg/m2.
- 2) Baseline functional class 4 with the subject bedridden or confined to wheelchair, largely or wholly incapacitated and capable of little or no self-care. (American Rheumatism Association functional class)
- 3) Inflammatory arthritis like Ankylosing Spondylitis.
- 4) Patients of Potts Spine
- 5) History of acute joint trauma within 30 days of study entry.

6) Patient who are known case of Disc Prolapse.

- 7) History of Lumbar Spine Surgery.
- 8) Intra-articular/intramuscular corticosteroids within 30 days of study entry.
- 9) Active peptic ulcer disease, gastroesophageal reflux disease, or inflammatory bowel disease. History of gastrointestinal bleeding within 1 year of study entry.
- 10) Unwillingness or inability to abstain from alcohol for the study duration.
- 11) Pregnant and nursing women.
- 12) Any serious medical, social or psychological condition.

ASSESSMENT CRITERIA: In this Trial enrolled patients were assessed on the basis of pre and post observations on WOMAC and VAS scales.

(1) Gradations of VAS scale are as follows



- Grade 0-1 No pain
- Grade 2-3 Mild pain
- Grade 4-5 Uncomfortable troublesome pain
- Grade 6-7 Distressing, miserable pain
- Grade 8-9 Intense, horrible pain
- Grade 10 Worst, unbearable pain

(2)WOMAC (Western Ontario and McMaster Universities OA Index) scale (www.fizjoterapeutom.pl/attachments/arti

[cle/348/2008-4404b1-05-WOMAC-Questionnaire.pdf](http://www.fizjoterapeutom.pl/attachments/arti/cle/348/2008-4404b1-05-WOMAC-Questionnaire.pdf))

WOMAC score was assessed using 0 to 100 scale.

Data Recording: With the interval of 30 days data was regularly recorded at D.Y.Patil School of Ayurved and Research Institute, Nerul, Navi Mumbai.

STATISTICAL ANALYSIS: Applied the Wilcoxon matched pairs signed rank test for Statistical Analysis.

	MEAN BT	MEAN AT	MEAN DIFF	STD DEV BT	STD DEV AT	STD DEV DIFF	STD ERROR	T CAL	T TAB	P VALUE	SIGNIFICANCE
WEIGHT	67.4	65.5	1.9	7.6623	7.3258	0.9068	0.2867	6.626	2.26	< 0.0001	EXTREMELY SIGNIFICANT
WOMAC SCORE	71	55	16	11.9722	10.8012	5.164	1.633	9.798	2.26	< 0.0001	EXTREMELY SIGNIFICANT
VAS SCORE	7.7	5.8	1.9	1.5672	1.4757	0.99442	0.3145	6.042	2.26	0.0002	EXTREMELY SIGNIFICANT

H01: No significant difference due to Deodarvyadi churna in Lumbar Spondylosis for weight reduction .

H11: Significant difference due to Deodarvyadi churna in Lumbar Spondylosis for weight reduction .

Decision Criterion: Reject H01 if $t_{cal} > t_{tab}$ at 9 d.f.

$T_{cal} = 6.626$ and $t_{tab} = 2.26$

As t_{cal} is greater than t_{tab} we reject H01. As the p-value is < 0.0001 , it is extremely significant.

H02: No significant difference due to Deodarvyadi churna in Lumbar Spondylosis for reduction in WOMAC score

H12: Significant difference due to Deodarvyadi churna in Lumbar Spondylosis in reduction in WOMAC score

Decision Criterion: Reject H02 if $t_{cal} > t_{tab}$ at 9 d.f.

$T_{cal} = 9.798$ and $t_{tab} = 2.26$

As t_{cal} is greater than t_{tab} we reject H02. As the p-value is < 0.0001 , it is extremely significant. But the data does not pass the normality test and hence we applied the Wilcoxon matched pairs signed rank test.

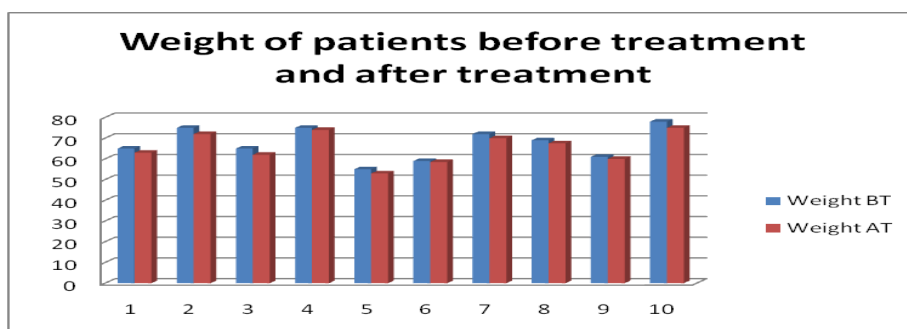
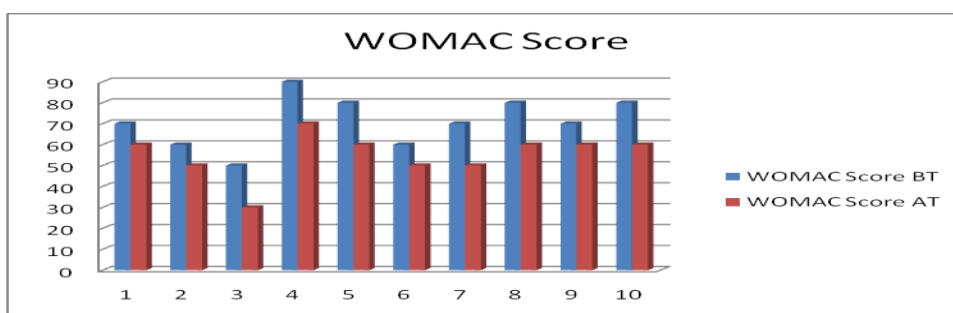
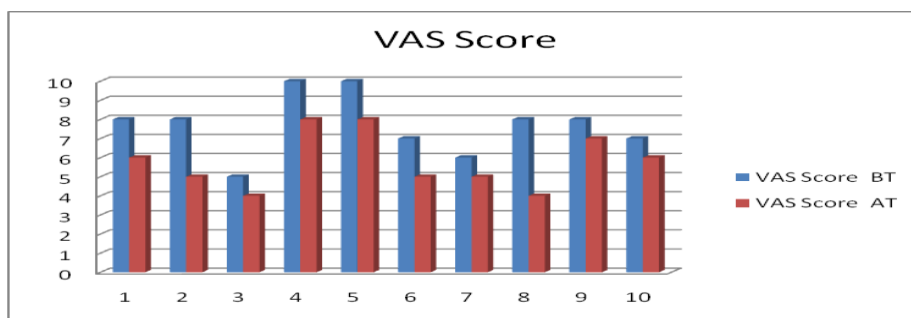
$W = 55$, $T_+ = 55$, $T_- = 0$, No. of pairs = 10
As p-value = 0.002, it is very significant.

H03: No significant difference due to Deodarvyadi churna in Lumbar Spondylosis for reduction in VAS score.

H13: Significant difference due to Deodarvyadi churna in Lumbar Spondylosis for reduction in VAS score
Decision Criterion: Reject H03 if $t_{cal} > t_{tab}$ at 9 d.f.

$T_{cal} = 5.7315$ and $t_{tab} = 2.26$

As t_{cal} is greater than t_{tab} we reject H03. As p-value = 0.0002, it is extremely significant



CONCLUSION: According to Ayurveda *margavarodhajanya Katigataavata* (Lumbar Spondylosis) patients showed improvement with *Deodarvyadi Churna* with *Aranda* Oil. After receiving *Deodarvyadi Churna* with *Aranda* Oil for 2 mths patient who were previously on NSAIDs got relief in pain and improved movements on WOMAC scale without use of NSAID. *Deodarvyadi Churna* is collection of Herbs having *katu Rasa, Ushna tikshna Guna, Ushna virya* and *Katu Vipaka* so it is useful for reduction of pain and swelling in the patients of Lumbar Spondylosis . *Deodarvyadi churna* improve overall digestion (*Aampachan*) of patient due to its penetrating hot properties (*ushna tik-*

shna guna).*Aranda* oil is doing *amapachan* and *vatanuloman* and relieving pain associated with lumbar Spondylosis.

After two month treatment with *Deodarvyadi Churna* with *Aranda* Oil, Lumbar Spondylosis patients showed improvement gradually in back pain on WOMAC, VAS scales and average weight reduction up to 2kg was also noticed after 8 weeks. Patients of Lumbar Spondylosis improved at level of significance $p < 0.0001$ for WOMAC scale and weight & $p < 0.0002$ for VAS scale. So *Devadarvyadi Churnawith Aranda* Oil is significantly useful in relieving symptoms and improving movements of patients of Lumbar Spondylosis.

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