

ORIGINAL RESEARCH ARTICLE

Effect of Matra Basti and Katibasti in the Management of Lumbar Disc Disease

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ABSTRACT

In the avant-garde era of busy professional & social life, improper sitting postures in offices & factories, continuous & over exertion, jerky movements during travelling & sports – all these hustles create undue pressure on the spine & hence results in most common disorder in most productive period of life i.e. Lumbar disc disease. Disc lesion creates little threat to life but it interferes greatly with normal living. Modern medicine has the source of treatment such as analgesics, sedatives, physiotherapy and lastly surgery. Surgery also is not an ultimate answer and recurrence is common. A medicament which relieves the pain, improves functional ability, restore from functional disabilities & controls the condition with cost effectiveness is the need of hour. Hence a clinical trial was undertaken to evaluate the effect of Matrabasti and Katibasti on patients having disc lesion as a major problem.

Patients and Methods: forty cases of disc lesion were randomly selected from Opd & Ipd of shalyatantra deptt. of SDM hospital, Udupi fulfilling the criteria & randomly divided into 20 patients each. The group 1st was treated with an ayurvedic regimen practiced commonly in the shalyatantra Opd of SDM hospital, Udupi comprising of Gokshuradi guggulu, Vishamusti vati and combination of Godanti bhasma & Avipattikar churna. The Group 2nd was given Matrabasti with Dhanvantri taila for 7days & Katibasti with Mahanarayan Taila for 7days along with above regimen. Effect of therapy was evaluated before, during & after by using parameters such as pain, neurological deficit, functional ability & functional disability. The 2nd group yielded encouraging results. Thus Matrabasti & Katibasti along with internal medications can serve as an important modality for treating cases of lumbar disc disease.

Keywords: Matrabasti, Katibasti, Lumbar disc disease.

INTRODUCTION

In the present day today life Busy professional & social life, Improper sitting postures in offices & factories, Continuous & over exertion, jerky movements during travelling & sports creates undue pressure on the spine in the most productive period of life i.e. disc disease. Backache which was known as an ancient curse is now known as a modern international epidemic. Eighty percent of the populations are affected by this symptom at sometime in life. Impairments of back and spine are ranked as the most frequent cause of limitation of activity in people younger than 45 years. In 78 percent men and 89 percent women specific cause was not known. It was believed that bad posture was responsible for most of these cases. The cost to the society and the

patient for treatment, compensation etc is very high ^[1]. The severity of this syndrome is enormously variable, from a brief and trivial episode to a long and difficult illness that occasionally requires surgical intervention. It is predominantly a disease of younger people with a peak incidence between the age of 20 and 40 years. Since the disc degenerates with age and is no longer capable of prolapse in the elderly ^[2]. Prolapse of lumbar intervertebral disc is caused in most cases by sprain, fatigue or cold. It often occurs between the cases by sprain, fatigue or cold. It often occurs between the 4th and the 5th lumbar vertebrae or between the 5th lumbar vertebra and 1st sacral vertebra, and often in youth and the middle-aged of 20-40, with the males

surpassing the females in number. The good news is that the vast majority of back-injured patients, probably greater than 90%, will recover completely without surgical treatment. Only 2 to 3% of the population with back pain have a herniated disc and only 1% have compression of a nerve root (leg symptoms) [3].

In Ayurveda Gridhrasi is considered as vataja nanatmaja vyadhi [4] and requiring energetic treatment. The above said conditions in one or other phase of pathology mimics Gridhrasi. In the present work, from the point of current practice of medicine IVDP, Lumbar spondylosis are taken up for the study. For the follower of Shalyatantra it is the need of hour to find out a treatment modality which relieves pain, improves functional ability, restores from functional disability and controls condition with cost effectiveness. Hence a Clinical trial was undertaken to evaluate the effect of Matra basti & Katibasti on patients having disc lesion as a major problem.

PATIENTS AND METHODS

Forty cases of this disease were randomly selected from OPD and IPD of Shalyatantra dept. of SDM Hospital Udupi fulfilling the criteria & randomly divided into 20 patients each. The complete profile of the patient was prepared as per the detailed proforma consisting of all the relevant data like symptomatology, physical signs and patient's constitution along with elaborate assessment of pain, Neurological deficit, functional ability and functional disability using standard questionnaires.

INTERVENTION

Group 1; Gokshuradi Guggulu – 1 tid, Vishamushti Vati – 1 tid, Godanti bhasma+ Avipattikara churna-1/2tsf bd.

Graph 1: Effect on magnitude of pain in Group A

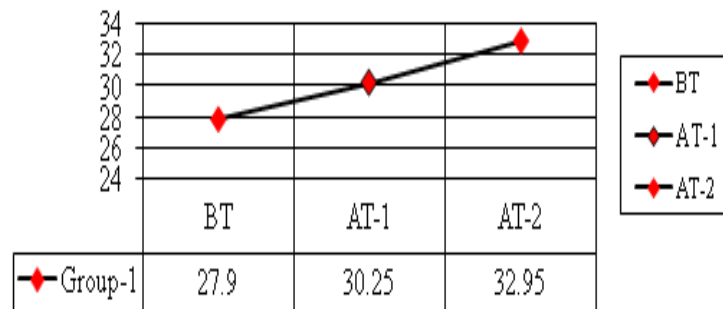


Table 1: Effect on magnitude of pain in Group A

N	BT	Follow up		Difference in mean	Paired 't' Test			
					S.D.	S.E.M	't'	P
20	27.90	AT1	30.25	2.350	8.515	1.904	0.803	= 0.427
		AT2	32.95	5.050	9.237	2.065	0.961	= 0.343

Group 2: Matra Basti with Dhanvantri taila –7 days, Kati Basti with Mahanarayana taila -6 days, Gokshuradi Guggulu – 1 tid, Vishamushti Vati – 1 tid, Godanti bhasma + Avipattikara churna-1/2tsfbd.

INCLUSION CRITERIA

Patients who are diagnosed with intervertebral disc prolapsed, lumbar spondylosis, lumbo sacral strain, L.S spondylolesthesis.

EXCLUSION CRITERIA

Traumatic conditions of the spine.

Infective conditions of the spine.

Neoplastic conditions of the spine.

ASSESSMENT CRITERIA

Effect of therapy was evaluated before, during and after by using parameters such as

Pain - Greenough & Fraser scoring method

Functional ability - Sugarbaker and Barofsy clinical mobility scale and

Functional disability - Oswestry disability assessment questionnaire.

OBJECTIVE CRITERIA

Tenderness, Motor weakness, Reflexes, Lasegue's sign, bilateral leg lowering test

EFFECT OF THERAPY

In the present work, Pain is scored as per Greenough and Fraser method by a standard questionnaire. Each question carries scores with a minimum of 0 to a maximum of 9. The higher the score, the better the performance status. The standard questionnaire were asked before and after treatment and after follow up i.e on 1st, 7th & 14th day. Hence after, 14 days the total score was calculated and analyzed as per statistical methods.

Graph 2: Effect on magnitude of pain in Group B

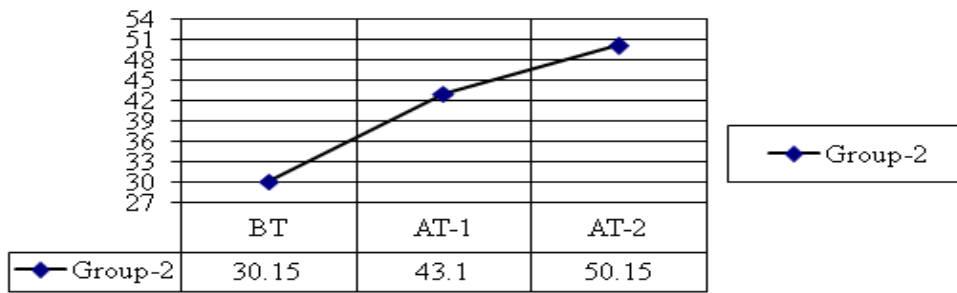


Table 2: Effect on magnitude of pain in Group B

N	BT	Follow up		Difference in mean	Paired 't' Test			
					S.D.	S.E.M	't'	P
20	30.15	AT1	43.10	12.950	6.664	1.490	4.282	= <0.001
		AT2	50.15	20.000	7.103	1.588	3.237	= 0.003

Functional ability:

The functional ability was assessed in all the patients by following Sugarbaker and Barofsky clinical mobility scale. The mobility scale begins with a least of 0 to a most of 24. It means

that a person with a score of 24 is having maximum mobility and as the score declines the mobility too deteriorates. Each patient was asked 8 questions before & after treatment and after follow up.

Graph 3: Effect on functional ability in Group A

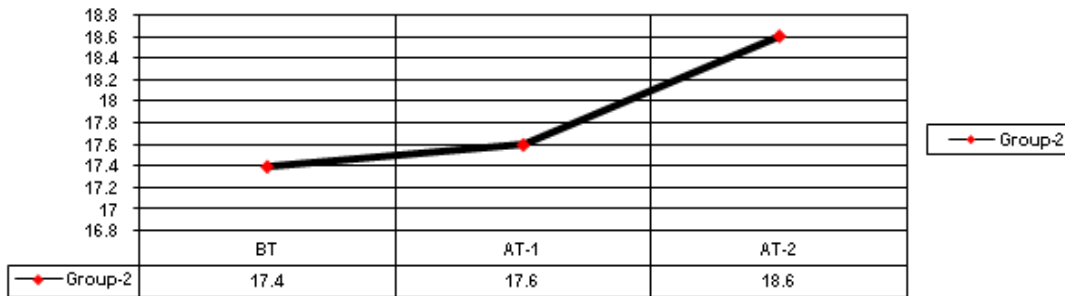


Table 3: Effect on functional ability in Group A

N	BT	Follow up		Difference in mean	Paired 't' Test			
					S.D.	S.E.M	't'	P
20	17.400	AT1	17.60	0.200	2.563	0.573	0.233	=0.817
		AT2	18.60	1.200	2.929	0.655	1.034	0.308

Graph 4: Effect on functional ability in Group B

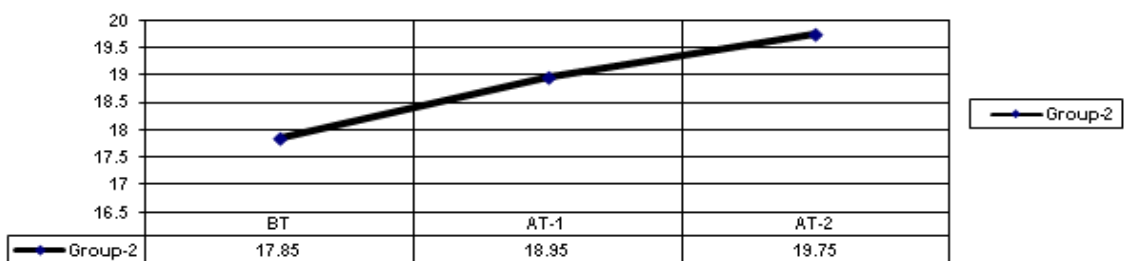


Table 4: Effect on functional ability in Group B

N	BT	Follow up		Difference in mean	Paired 't' Test			
					S.D.	S.E.M	't'	P
20	17.850	AT1	18.950	1.100	2.964	0.663	1.113	=0.273
		AT2	19.750	1.900	2.633	0.589	0.902	=0.373

Functional disability:

The functional disability was assessed by following Oswestry disability assessment questionarie. It includes questions about

disability and its impact on various aspects of life. Each question scored from 0 to 5 with the higher the values indicating more severe impact.

Graph 5: Effect on functional disability in Group A

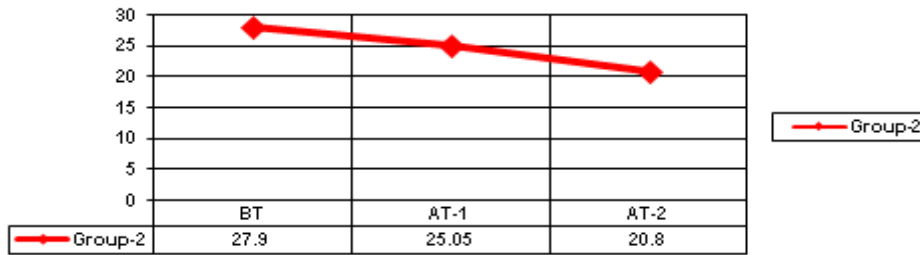


Table 5: Effect on functional disability in Group A

N	BT	Follow up		Difference in mean	Paired 't' Test			
					S.D.	S.E.M	't'	P
20	27.900	AT1	25.050	2.850	6.074	1.358	1.405	=0.168
		AT2	20.800	7.100	9.237	2.065	2.135	=0.039

Graph 6: Effect on functional disability in Group B

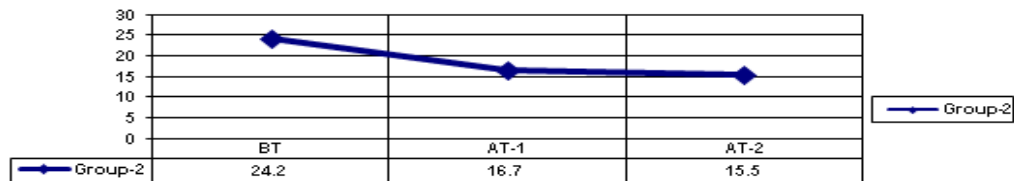
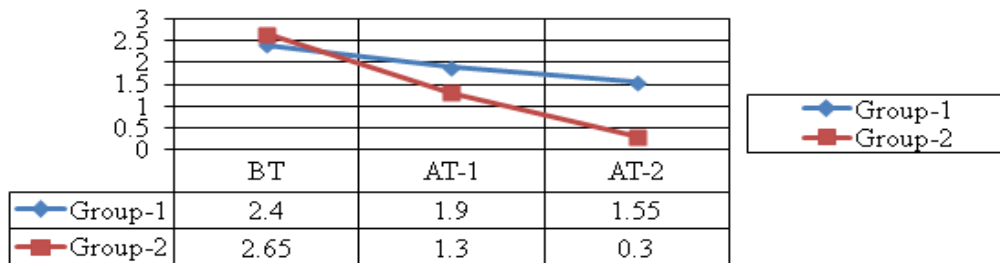


Table 6: Effect on functional disability in Group B

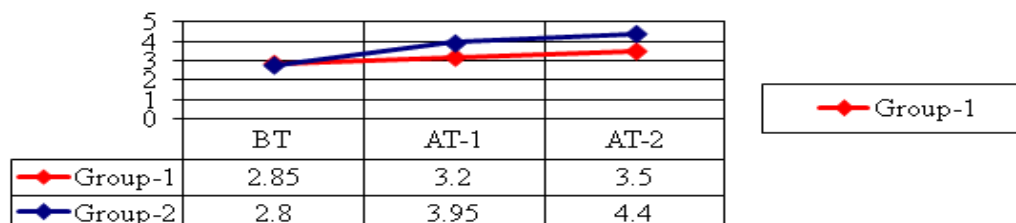
N	BT	Follow up		Difference in mean	Paired 't' Test			
					S.D.	S.E.M	't'	P
20	24.200	AT1	16.700	7.500	5.202	1.163	4.374	=<0.001
		AT2	15.500	8.700	5.605	1.253	0.702	= 0.247

OBJECTIVE PARAMETERS

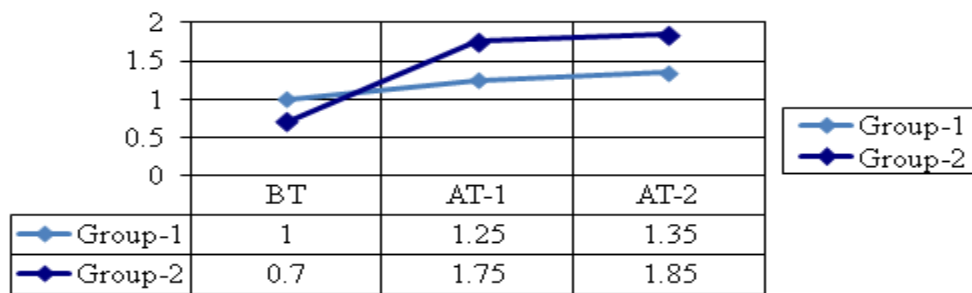
Graph 7: Effect of therapy on Tenderness



Graph 8: Effect of therapy on Motor weakness



Graph 9: Effect of therapy on Reflexes



DISCUSSION

Lower disc lesion is one of the major problems throughout the country leading to loss of national production resulting in economic loss. Clinically also it is observed that nidanas of vatavyadhis such as abhighata, bharaharana, vegavidharana, vishtambhi, ruksha, alpa ahara, dukhasaiya, dukhasana are the most occurring causes of Gridhrasi^[5]. Gridhrasi refers to a disease with distressing pain experienced by the patient and is similar to the pain experienced by a prey of vulture while being eaten up^[6]. This simile is sufficient enough to understand the nature of pain in this disease and suggests its gravity of distress.

In modern science, a similar condition is named as "Sciatica Syndrome". It is the distribution of pain along the course of sciatic nerve or its component nerve root is characteristic. This illness is named so because of its complexity in symptoms as well as etiological factors. Radiating deep seated cramping pain followed with numbness and paraesthesia in lower extremities favours the diagnosis^[7]. Restricted S.L.R test and Lasegue's sign consolidates the diagnosis clinically and even the illness can be confirmed by imaging techniques. Prolapse of intervertebral disc, external mechanical pressure and degenerative changes of the lumbar spine are the common causes for this disease. History of trauma may add up in the process of diagnosis.

Snehana, Swedana and Mrudu Sodhana are the Principles of treatment in all Vatavyadhi^[8]. Mrudu Sodhana in the form of Basti forms the major treatment of Gridhrasi^[9]. Matra basti is always applicable to those emaciated due to overwork, physical exercise, weight lifting, journey on vehicles, indulgence in sex, in debilitated persons and those afflicted by vatadosha. Matra basti promotes strength, without calling for any strict regimen of diet and also causes easy elimination of mala and mutra. It performs the function of Brimhana and cures vatavyadhi^[10].

Mode of action of Matra basti

Vagbhatta says the virya of basti is conveyed to apana and then to samana vata, which may regulate the function of agni. It then goes to Udana, Vyana and Prana, thus providing its efficacy all over the body. At the same time Basti by Pacifying Vata, Restores the disturbed kapha and pitta at their original seats and thus helps in breaking the pathogenesis. Thus according to Ayurveda, the veerya (active principle) of the ingredients used in the Basti gets absorbed and then, through the general circulation, reaches at the site of the lesion and relieves the disease^[11].

Pharmokinetic studies have also proved that drug administered via rectum can achieve higher blood levels of the drug than oral route due to partial avoidance of hepatic first-pass metabolism. The rectum has a rich blood and lymph supply and drugs can cross the rectal mucosa as they can other lipid membranes. Thus, un-ionized and lipid-soluble substances are readily absorbed from the rectum. The portion absorbed from the upper rectal mucosa is carried by the superior hemorrhoidal vein into the portal circulation, whereas that absorbed from the lower rectum enters directly into the systemic circulation via the middle and inferior hemorrhoidal veins. Thus, administration of drugs in the Basti form has faster absorption and provides quicker results.

The rectal wall contains neuroreceptors and pressure receptors which are stimulated by various basti dravyas. Stimulation results in increase in conduction of sodium ions. The inward rush of sodium ions through the membrane of the unmyelinated terminal is responsible for generating the action potential, influx of ion there by generating action potential. Generally the action potential is initiated by increase in permeability to sodium ions. Saindhava lavana present in basti probably generates the action potential and helps in diffusion and absorption of basti dravyas.

The drugs, immediately after entering into the pakwashaya (intestines), strike at the very root of viciated vata. By virtue of their permeability the drugs may increase the normal bacterial flora of the colon and their by modulate the rate of endogenous synthesis of vitamin B₁ and B₁₂ as well as vitamin K, which are normally manufactured by bacterial flora. Vitamin B₁₂ may have a role to play in the regeneration and maintenance of nerves cells. Basti karma also reverses the effects of degeneration by enhancing immunity^[12].

Mode of action of Kati basti

Kati basti is a kind of snehayukta sweda, sagni, ekanga, snigdha, madhyama, drawa, samshamaniya type of bahiparimarjana chikitsa – sweda^[13, 14, 15]. It is a therapeutic procedure popularized during later half of 20th, to treat back problems. Snehana and Swedana is done which relieves Stambha, Gaurava, Seeta and which reduces the intensity of pain. Considering this aspect Katibasti is opted for this study. Kati basti is one such procedure were in immediate relief from the symptomatology may be obtained

From the Shamana point of view, various medication which soothe the severity of pain, improves functional ability is best in Gridhrasi.

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