



STUDY ON THE EFFICACY OF MADAN TAILA MATRA BASTI IN PROLAPSED INTERVERTEBRAL DISC

Dr. Arnav Barman\*

PG Scholar, Dept. of Roga Nidan, Govt. Ayurvedic College & Hospital, Guwahati. \*Corresponding Author

Dr. Anup Baishya

Associate Professor, Dept. of Roga Nidan, Govt. Ayurvedic College & Hospital, Guwahati.

ABSTRACT

Prolapsed Intervertebral Disc is one of the major causes of Chronic Low Back Pain. Prolapsed Intervertebral disc is very difficult to cure, surgery remains the last option but results are unsatisfactory. In Ayurveda it can be correlated with Margaavaranaaja Vata Vyadhi. Basti is best for the treatment of vata and Madan Taila is good for relieving the Marga Avaran. In this study, an effort has been made to find out the efficacy of Madan Taila Matra Basti in the management of Prolapsed Intervertebral Disc. The study was conducted at Govt. Ayurvedic College & Hospital, Ghy-14 with 19 Patients, and data were recorded in specially designed Proforma. From the data a statistically significant result was found that Madan taila matra Basti is efficacious in treating Prolapsed Intervertebral Disc.

**KEYWORDS :** Prolapsed Intervertebral Disc, Madan Taila, Low Back Pain, Marga Avaran.

INTRODUCTION:

Intervertebral Disc Prolapse is one of the most common and chronic causes of low back pain. Intervertebral Disc Prolapse occurs when the *nucleus pulposus* in a degenerative disc prolapses and pushes out the weakened *annulus fibrosus*, usually posterolaterally. The Lumbosacral spine is susceptible to disk herniation because of its mobility. Seventy-five percent of flexion and extension occurs at the Lumbosacral joint (L5-S1) and 20% occurs at L4-5. Probably related to this 90% to 95% of clinically significant compressive radiculopathies occur at these two level.<sup>1</sup>

Management of Low back Pain due to Intervertebral Disc Prolapse is usually difficult and the outcome is unsatisfactory. According to Ayurvedic Concept the structure of Intervertebral Disc may have kaphaja nature. We can assume that kapha when gets vitiated impact the gati of vata ( peripheral nerve conduction ). So ultimately we can consider it as avaranaja vata vyadhi and for the samprapti bighatana kaphavatahara dravya may be used. In my study Madan taila has been used for this purpose.<sup>2</sup>

MATERIALS AND METHODS :

AIM AND OBJECTIVE :

The Aim of the present Study is to evaluate the Efficacy of Madan Taila Matra Basti in the Management of Prolapsed Intervertebral Disc.

SAMPLE SIZE:

The study was performed in 19 patients of Govt. Ayurvedic College and Hospital, Ghy-14.

SELECTION OF PATIENTS

All the patients were randomly selected from IPD of Govt. Ayurvedic College & Hospital, Ghy14.

INCLUSION CRITERIA:

- Age group 18-70 years for clinical Study of Intervertebral Disc Prolapse
- Newly diagnosed cases of Intervertebral Disc Prolapse

EXCLUSION CRITERIA:

- HIV, HBsAG, HCV positive patients.
- Patients with pregnancy and medico legal cases were excluded.
- Immunocompromised or unstable patients.
- Chronicity of disease more than 10 years.

ASSESSMENT:

SUBJECTIVE PARAMETERS<sup>3</sup>:

1. PAIN

- No pain at rest  
No pain while walking / working  
No disturbance of sleep due to pain. 0
- No pain at rest  
Mild and tolerable pain while walking / working  
No disturbance of sleep due to pain 1
- Mild pain at rest  
Moderate and tolerable pain while working /walking  
No disturbance of sleep due to pain 2
- Moderate to severe pain at rest  
Severe to intolerable pain while walking / working  
Disturbance of sleep due to pain 3

2. DURATION OF PAIN

- feeling of pain rarely 0
- feeling of pain occasionally 1
- feeling of pain for a short duration 2
- feeling of pain throughout the day 3
- pain persists day and night 4

3. RADIATION OF PAIN

- pain never radiates 0
- pain radiates in major movements 1
- pain radiates also in moderate movements 2
- pain radiates even in minor movements 3
- pain radiates all the time. 4

4. NUMBNESS

- No numbness 0
- Numbness in some portion of any of the leg 1
- Numbness all over one leg 2
- Numbness some portion of both leg 3
- Numbness all over both leg 4

5. STIFFNESS

- no stiffness 0
- in morning only 5 to 10 mins 1
- daily 10-30 mins 2
- daily in different times 30-60 minutes 3
- daily for more than 1 hour 4

OBJECTIVE CRITERIA<sup>3</sup>

1. S.L.R
  - 90° 0
  - 60° 1
  - 30° 2

• 0° 3

**2. TENDERNESS**

- Patient doesn't feel pain during examination 0
- Patient feel mild pain during examination of tender area 1
- Patient feel moderate pain during examination of tender area 2
- Patient doesn't allow to examine the tender area 3

**DIAGNOSIS CRITERIA**

Diagnosis was done on the basis of clinical and laboratory parameters:

**ROUTINE EXAMINATION, ASSESSMENT AND FOLLOW UP:**

- All selected patients were recorded as per specially design proformas.
- Clinical assessment was done and recorded on '0' days and '14' days.
- Total Duration of treatment was 14 days.

**PREPARATION OF TRIAL DRUG :**

Raw materials of *Rubia cordifolia*. Linn , *Phyllanthus emblica*. Linn, *Terminalia bellirica*. Roxb, *Terminalia chebula*. Retz, *Cyperus rotundus* Linn, *Cinnemomum tamala*, *Symplocos racemosa*. Roxb, *Curcuma longa* Linn, *Pandanus fascicularis*. Lamk, *Ficus bengalensis* linn, *Valerina hardwickii* Wall, *Cutanaregan Spinosa* ( thumb ) *Trivengadum*, *Aegle marmelos* Corr., *Premna integrifolia* Linn, *Oroxylum indicum* Vent, *Gmelina arborea* Roxb, *Stereospermum sucveolens* Dc., *Solanum indicum* Linn , *Solanum xanthocarpum* , *Desmodium gangeticum*, *Uria picta* desv , *Tribulus terrestris* Linn were bought from Bhrmhanath Pharma pvt. Ltd. Ahmednagar , Maharastra and each ingredient were tested for its authenticity at the Drug Testing Laboratory , Govt. Ayurvedic College & Hospital , Ghy-14

**PREPARATION OF MADAN TAILA :**

Taila kalpana is a technique where taila is used as a base to get properties of the herbs in the media of taila .The taila acts not only as base but also like vehicle . The active constituents of the drugs are incorporated into the taila to make the preparation therapeutically more potent .Madan Taila is described in Charak Samhita Siddhi Sthana ( 4<sup>th</sup> chapter , 17<sup>th</sup> sloka )

**DOSE OF MATRA BASTI:**

60 ml for 14 days each .

**OBSERVATION AND RESULTS:**

**1. Table -1**

**PAIN**

MEAN BT	MEAN AT	SD BT	SD AT	Mean BT-AT	Df	P	RESULT
2.84	0.36	0.37	0.49	2.47	18	<0.001	HIGHLY SIGNIFICANT

**2. TABLE-2**

**DURATION OF PAIN:**

MEAN BT	MEAN AT	SD BT	SD AT	Mean BT-AT	Df	P	RESULT
2.84	0.57	0.37	0.50	2.26	18	<0.001	HIGHLY SIGNIFICANT

**3. TABLE-3**

**RADIATION OF PAIN**

MEAN BT	MEAN AT	SD BT	SD AT	Mean BT-AT	Df	P	RESULT
2.89	0.57	0.80	0.50	2.31	18	<0.001	HIGHLY SIGNIFICANT

**4. TABLE- 4**

**Sitting**

MEAN BT	MEAN AT	SD BT	SD AT	Mean BT-AT	df	P	RESULT
1.73	0.42	0.45	0.50	1.31	18	<0.001	HIGHLY SIGNIFICANT

**5. TABLE-5**

**Sleeping**

MEAN BT	MEAN AT	SD BT	SD AT	Mean BT-AT	df	P	RESULT
2	0.57	0	0.50	1.42	18	<0.001	HIGHLY SIGNIFICANT

**6. TABLE-6**

**S.L.R.T**

MEAN BT	MEAN AT	SD BT	SD AT	Mean BT-AT	df	P	RESULT
2.10	0.57	0.31	0.50	1.52	18	<0.001	HIGHLY SIGNIFICANT

**7. TABLE- 7**

**TENDERNESS**

MEAN BT	MEAN AT	SD BT	SD AT	Mean BT-AT	df	P	RESULT
2	0.57	0	0.50	1.42	18	<0.001	HIGHLY SIGNIFICANT

**DISCUSSION AND CONCLUSION:**

In Inter vertebral disc prolapse, there is degeneration of nucleus pulposus and annulus fibrosus. Various things such as heavy weight lifting, bending, sneezing etc may trigger the inner softer part of the disc to prolapse out through the weakened outer part of the disc. Inflammation at the local site and production of proinflammatory cytokines within the protruding or rupture disc trigger back pain. Normally spinal nerves arise from spinal cord via inter vertebral space reached muscle and gives support and nourishment to the muscles.

As a result of disc prolapse, friction of two vertebrae is seen which result irritation and damage to the peripheral nerve. Protruded disc causes the neural foramina engorgement. Spinal nerves get compressed by the prolapsed inter vertebral disc, for which there is decreased neural conduction to muscles and develop pain, tingling, stiffness, numbness like symptoms.

Most of the function of vata can compare with normal physiology of nervous system. Vata has been derived from the root "Va", Gati (to move) and Gandhana (to become conscious) are two functions of vata. Gati and Gandhana can be compared with motor and sensory function respectively[4]. Avyahata gati of vata can help to do normal neuronal function. The anterior portion of the spine consists of cylindrical vertebral bodies separated by Intervertebral disc. Inter vertebral disc are composed of a central gelatinous nucleus pulposus (Kapha in nature/ gelatinous) surrounded by a tough cartilaginous ring called annulus fibrosus.

In Inter vertebral disc prolapse, there is degeneration of outer annulus fibrosus. The nucleus pulposus (kapha in nature) may be protruding through the weak annulus fibrosus. The prolapsed part give pressure over nerves (vata marga) and develop neurological symptoms like pain, numbness, stiffness, tingling etc.[1] Simply, here vata marga is obstructed by kapha. So kaphanubandha vata symptoms will arise.

Nerve conduction to the muscle is obstructed by the prolapse part of inter vertebral disc. This can be compared with marga avarana. Here the avyahata gati of vata is obstructed by the prolapsed part.

Symptoms of Intervertebral disc prolapse may appear in mild to severe form. Simply back pain is present in all the patient of Intervertebral disc prolapse with other nerve root symptom such as numbness, tingling, stiffness, weakness of muscle

and paralysis. Rarely cauda equine syndrome may also present in case of Intervertebral disc prolapse where low back pain and problem to bowel and bladder function occurs.

In Ayurveda some diseases like kati trik graham, kaphavrit vata, griba stambha, katisul, gribasul, asthimajjagata vata, asthimajjavrit vata, gridhrashi, vishwachi, kanja, pangulya. etc shows same symptoms like inter vertebral disc prolapse.

Cause of intervertebral disc prolapsed is not clear according to modern science but according to ayurveda rukshadi nija vatakarak nidam, abhigatadi agantuja vatakarak nidam is responsible for inter vertebral disc prolapse.

In my study, Matrabasti was given for duration of 14 days, Follow up study was done at 14<sup>th</sup> day. The assessment of the result was done depending upon the severity of the disease. Both the subjective and objective assessment of result was done and the obtained data were organized and summarized by using frequency distribution table. The data were then analyzed by appropriate statistical tools such as arithmetic mean, standard deviation, paired t-test of significance.

#### DISCUSSION ON STATISTICAL ANALYSIS:

**In case of Pain** (Table no-1) shows that pain before treatment mean SD was  $2.84 \pm 0.37$  and it declined to  $0.36 \pm 0.5$  after treatment. At 18 degree of freedom,  $p < 0.001$ , Hence the result is highly significant.

**In case of Duration of pain** (Table no-2) shows that before treatment mean SD was  $2.84 \pm 0.37$  and it declined to  $0.57 \pm 0.5$  after treatment. At 18 degree of freedom  $p < 0.001$ , Hence the result is highly significant.

**In case of Radiation** (Table no-3) shows that before treatment mean SD was  $2.89 \pm 0.8$  and it declined to  $0.57 \pm 0.5$  after treatment. At 18 degree of freedom  $p < 0.001$ , Hence the result is highly significant.

**In case of Sitting** (Table no-4) shows that before treatment mean SD was  $1.73 \pm 0.45$  and it declined to  $0.42 \pm 0.5$  after treatment. At 18 degree of freedom,  $p < 0.001$ , Hence the result is highly significant

**In case of Sleeping** (Table no-5) shows that before treatment mean SD was  $2 \pm 0$  and it declined to  $0.57 \pm 0.5$  after treatment. At 18 degree of freedom,  $p < 0.001$ , Hence the result is highly significant.

**In case of S.L.R.** (Table no-6) shows that before treatment mean SD was  $2.1 \pm 0.31$  and it declined to  $0.57 \pm 0.5$  after treatment. At 18 degree of freedom,  $p < 0.001$ , Hence the result is highly significant.

**In case of Tenderness** (Table no-7) shows that before treatment mean +SD was  $2 \pm 0$  and it declined to  $0.57 \pm 0.5$  after treatment. At 18 degree of freedom,  $p < 0.001$ , Hence the result is highly significant.

#### CONCLUSION:

1. Intervertebral disc Prolapse is a margavaranaaja Vata Vyadhi.
2. Madan Taila is efficacious in the treatment of Prolapsed Intervertebral Disc.

#### REFERENCES:

1. FIRESTEIN G, Textbook of Rheumatology, 10<sup>th</sup> edition, Chapter-47.
2. Shastri S. Agnivesha Charak Samhita, SiddhiSthana, Chapter 4, Sloka 17, reprint 2009
3. Sarmah N, "Clinic-Pathological Study of Neurological Diseases in Ayurveda Specially Marga Avarodhaja Vatavyadhi With Special Reference to Samprapti Bighatana Concept in Low Back Pain".
4. Sastri A., Maharshi Sushruta Sushrut Samhita, Sutra Sthana, Chapter 21, Sloka 5, reprint 2011.