

# Holistic efficacy of ayurvedic treatment modalities for spinal disorders: An observational study

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## Abstract

This research investigates the effectiveness of Ayurvedic treatments for spinal disorders using a holistic, non-invasive approach. Conducted on 49 patients, the study incorporates five integrated modalities: external therapies, internal therapies, diet management, lifestyle modifications, and stress management. The results demonstrate significant symptom resolution rates, with up to 32.65% of patients achieving 90% improvement and 12.24% attaining complete relief. The findings underscore the value of Ayurveda in addressing spinal health through personalized, energy-focused care.

**Keywords:** Observational Study; Ayurvedic Treatment; Meru Chikitsa Spinal Disorders; Stress Management

## 1. Introduction

Spinal disorders, encompassing conditions such as back pain, neck pain, and sciatica, represent a growing public health challenge. Conventional treatments often involve invasive procedures, raising concerns about complications and long-term outcomes [1]. Ayurveda, a 5,000-year-old traditional Indian medicine system, offers a holistic alternative that emphasizes the alignment of body, mind, and spirit. This study aims to evaluate the efficacy of Ayurvedic treatments, specifically focusing on the novel Meru Chikitsa therapy, for spinal disorders. According to Ayurveda, Meru Chikitsa is based on the belief that the spine is not just a part of the body but also a pathway for life energy or prana [2].

The spine is considered to be the source of various energy channels (Nadis) and energy centres (Chakras) that regulate the body's physical, mental, and emotional functions. The health of the spine is therefore related to the general health and well-being of an individual [3,4].

Any misalignment, disturbances, or blockages in the spine are thought to cause several health issues, like physical pain, decreased mobility, and emotional imbalances [5]. By focusing on spinal alignment, Meru Chikitsa aims to correct these imbalances and help the energy to flow freely throughout the body to promote holistic healing [6].

According to Ayurveda, Meru Chikitsa is founded on the principle that the spine is not merely a structural component of the body but also a vital pathway for life energy, or prana [7]. The spine is believed to house various energy channels (Nadis) and energy centers (Chakras), which play a crucial role in regulating the physical, mental, and emotional functions of the body [8,9].

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The health of the spine is intrinsically linked to an individual's overall well-being. Misalignments, disturbances, or blockages in the spine are thought to result in a range of health issues, including physical pain, reduced mobility, and emotional imbalances. Meru Chikitsa seeks to address these issues by restoring proper spinal alignment, thereby facilitating the free flow of energy throughout the body. This approach promotes holistic healing and supports the integration of physical, mental, and emotional health [10]. Meru Chikitsa is founded on the following key principles

- **Spinal Alignment:** The primary objective of Meru Chikitsa is to correct spinal misalignments. It employs gentle and natural techniques to restore proper alignment of the spine.
- **Energy Flow:** In Meru Chikitsa, the spine is regarded as the central conduit of life energy, or *prana*. Ensuring proper spinal alignment facilitates the free flow of *prana*, thereby promoting physical, mental, and emotional well-being.
- **Holistic Healing:** This therapy adopts a comprehensive approach by addressing not only physical health but also the mental and emotional aspects of an individual's well-being.
- **Non-Invasive Technique:** Meru Chikitsa utilizes non-invasive methods, including gentle manipulations, stretches, and pressure techniques, avoiding the need for medications or surgical procedures. As a result, it is considered a safe and effective therapy for individuals across all age groups.
- **Personalized Therapy:** Recognizing that each individual's spine and energy system are unique, Meru Chikitsa involves a thorough evaluation of the patient's posture, spinal alignment, and energy flow. Based on this assessment, an Ayurvedic practitioner devises a customized treatment plan tailored to the individual's specific needs.

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## 2. Methodology

### 2.1 Study Design

This observational study was conducted at Vardhan Ayurveda Hospital (VAH) on a cohort of 49 patients diagnosed with varying spinal disorders.

### 2.2 Inclusion Criteria

- Adults aged 20-77 years.
- Diagnosed with conditions such as back pain, neck pain, sciatica, and spinal misalignment.

### 2.3 Treatment Plan

The treatment plan consisted of the following modalities:

- **External Therapies:** Meru Chikitsa (Ancient Ayurveda Spine & Neuro Therapy) and Marma Chikitsa (Vital Point Therapy) are specialized Ayurvedic treatments designed to restore spinal and neuro health through targeted techniques. Based on disease severity, therapy durations vary between 18, 28, or 45 days. Key procedures include Abhyanga (body massage), Shiro Abhyanga (head massage), Swedam (steam therapy), and advanced treatments like Pizhichil (medicated oil bath), Patra Potali Pinda Swedam (leaf bundle massage), and Shali Shastika Pinda Swedam (herbal rice poultice therapy).
- Additional therapies such as Nasyam (nasal insufflation), Karna Poorana (ear drop therapy), Greeva Vasti (oil therapy for the cervical region), and Kati Vasti (oil therapy for the lumbar region) address specific pain and mobility issues. Vasti Karma (medicated enema) is also employed to balance doshas and detoxify the system. These therapies work synergistically to enhance spinal alignment, alleviate pain, and improve overall neuromuscular function.
- **Internal Therapies:** Ayurvedic treatments focused on balancing *Vata dosha*, the primary factor behind pain and inflammation. Internal therapies included a range of targeted formulations such as Ayursages SpineX Gold, Neuro Gold, Muscle Mend, and Joint Flex tablets, along with Gut Reset and Pain Ease Tablets. Complementary therapies used herbal oils like Dhanwantaram Thailam, Sahacharadi Thailam, and Murivenna Thailam for massage, Greeva Vasti, and Kati Vasti. Additional treatments included Anu Thaila nasal drops, Karna Purana ear drops, Ashwagandha Lehyam, and Chyawanprash Lehyam, offering a comprehensive approach to strengthen the spine, reduce pain, and promote overall well-being.
- **Diet Management:** Personalized diets emphasizing Vata-pacifying foods. Patient is asked to avoid Vata Increasing foods and avoid Vata pacifying foods. The following is the diet chart which is given to all of my patients –

- **Lifestyle & Exercise Management:** Structured regimens, including yoga (Bhujangasana, Halasana) and brisk walking.
- Change of Posture is advised. Patient is asked not to sit and sleep on the floor. He / she is advised to be mobile always and not sedentary. The following exercises are taught according to the requirement of the patient –
- Swimming
- Yoga – Bhujangasan, Halasan, Shalabhasan, Vrukshasan, Balasan
- Isometric Exercises
- Brisk Walk &
- House hold Chores etc

2.3.1 **Stress Management:** Techniques such as Pranayama and mindfulness meditation.

Stress also plays a vital role in causing back pain and neck pain – hence we advise the following modalities for stress relief:

- Pranayama (Breathing Exercises) like Anulom Vilom Pranayama
- Meditation &
- Mindfulness

Symptom severity, resolution rates, and patient-reported improvements were analyzed using demographic and clinical data.

Avoid	Advised
Curd	Butter Milk (1:4)
Besan	Leafy Vegetables
Tamarind	Salads
Masalas	Seasonal Fruits
Banana	Mutton Chops
Fish/Marine Food	Kheema/Paya
Chinese Food	Soups/Juices
Aloo,Brinja,Gongura	Do all your work with caution
Irregular Sitting (postures)	
Weight Lifting	
Sex during the treatment period	
No exercise	

### 3. Results

#### 3.1 Demographics and Baseline Characteristics

The study cohort consisted of 49 patients diagnosed with varying spinal disorders. A detailed summary of demographic and baseline characteristics are as follows:

Gender Distribution: Females accounted for 51.02% (n=25), while males constituted 48.98% (n=24).

Age: The mean age of the participants was 49.59 ± 13.28 years, with a median age of 50 years. The age range was 20 to 77 years, with the interquartile range (IQR) between 42 and 57 years (Table 1).

#### 3.2 Symptom Profile

The most commonly reported symptoms were back pain and sciatica, each affecting 28.57% of the cohort (n=14). Less common symptom combinations included back pain with burning micturition (2.04%, n=1) and neck pain with spinal

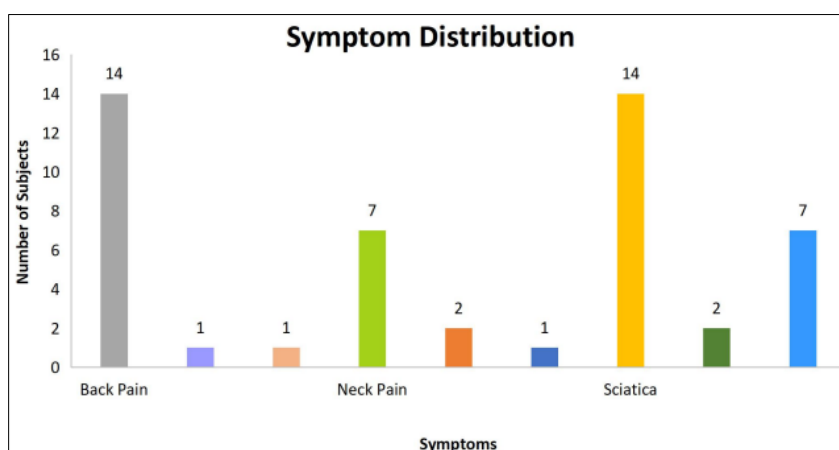
problems (2.04%, n=1). Patients often reported severe symptom intensity. An analysis of symptoms is presented in Table 2, with a graphical representation in Figure 1.

**Table 1** Summary of Demographic and Baseline Characteristics

Parameter	Statistics	Treatment Group (N=49)
Gender	n	49
Male	n (%)	24 (48.98%)
Female	n (%)	25 (51.02%)
Age	n	49
	Mean ± Sd	49.59 ± 13.28
	Median	50
	Quantile	42.00;57.00
	Range	20.00 - 77.00

**Table 2** Overview of symptoms

Symptoms	Severity	n	%
Back Pain	Severe	14	28.57%
Back Pain + Erectile Dysfunction + Premature Ejaculation	Severe	1	2.04%
Back Pain + Neck Pain	Severe	1	2.04%
Neck Pain	Severe	7	14.29%
Neck pain + Sciatica	Severe	2	4.08%
Neck Pain + Spine Problem	Severe	1	2.04%
Sciatica	Severe	14	28.57%
Sciatica + Spine Problem	Severe	2	4.08%
Spine Problem	Severe	7	14.29%
Grand Total (n)		49	100.00%



**Figure 1** Distribution of the symptom

**Treatment Outcomes:** The treatment outcomes of Meru Chikitsa demonstrated significant efficacy in managing spinal disorders, with 100% of patients completing the 45-day treatment (Table 3). Symptom resolution rates were notably high, with 64.29% of sciatica patients achieving 90% improvement and complete (100%) resolution observed in rare

conditions like neck pain combined with spinal problems (Table 4). Gender-specific outcomes revealed slightly higher resolution rates among females (36% achieving 90% improvement) compared to males (29.17%). Complete (100%) resolution was achieved in rare conditions, such as neck pain associated with spinal disorders. Patients with isolated back pain demonstrated varying levels of improvement, with 42.86% achieving an 80% resolution rate (Table 4 and Figure 2).

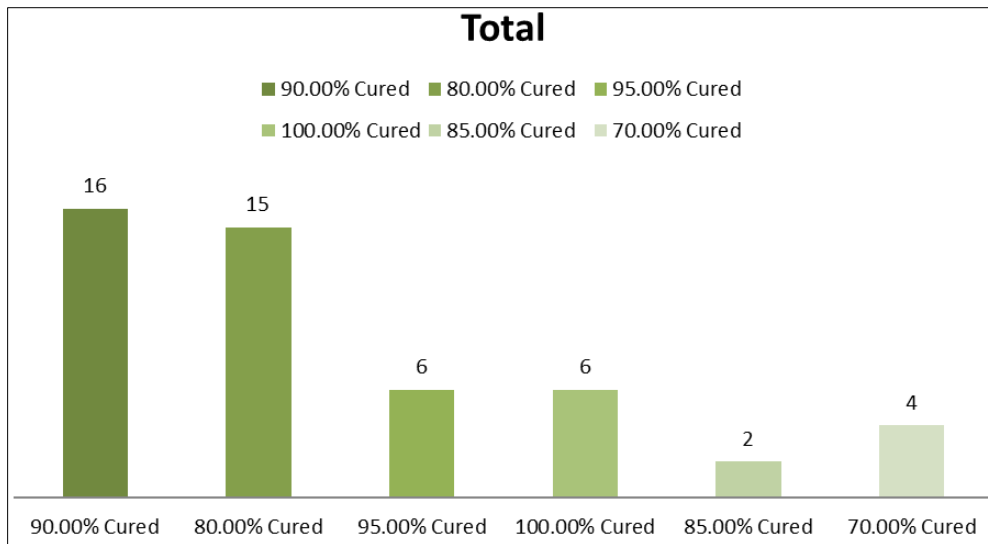
Personalized therapies, including external and internal Ayurvedic treatments, dietary adjustments, and stress management, contributed to holistic healing without adverse effects. Female patients showed slightly higher resolution rates compared to males, underscoring the potential of **Meru Chikitsa** as a safe, non-invasive approach for spinal health.

**Table 3** Overview of the treatment details

Treatment Duration	n	%
18 Days	-	-
28 Days	-	-
45 Days	49	100.00%
Treatment Plan	n	%
External Therapies	49	100.00%
Internal Therapies	49	100.00%
Diet Management	49	100.00%
Lifestyle & Exercise Management	49	100.00%
Stress Management	49	100.00%

**Table 4** Summary of Problem Resolution Rates by Gender

% Problem Cured	Female (N=25)		Male (N=24)		Overall	
	n	%	n	%	n	%
70.00%	1	4.00%	3	12.50%	4	8.16%
80.00%	6	24.00%	9	37.50%	15	30.61%
85.00%	1	4.00%	1	4.17%	2	4.08%
90.00%	9	36.00%	7	29.17%	16	32.65%
95.00%	4	16.00%	2	8.33%	6	12.24%
100.00%	4	16.00%	2	8.33%	6	12.24%
Grand Total	<b>25</b>	<b>100.00%</b>	<b>24</b>	<b>100.00%</b>	<b>49</b>	<b>100.00%</b>



**Figure 2** Problem Resolution Rates

**Table 5** Problem Resolution Rates Categorized by Symptoms

Symptoms	70.00%	80.00%	85.00%	90.00%	95.00%	100.00%	Overall %
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Back Pain	-	6 (42.86%)	1 (7.14%)	3 (21.43%)	2 (14.29%)	2 (14.29%)	14 (100%)
Back Pain + Erectile Dysfunction + Premature Ejaculation	-	-	-	-	1 (100%)	-	1 (100%)
Back Pain + Neck Pain	-	-	-	-	1 (100%)	-	1 (100%)
Neck Pain	1 (14.29%)	3 (42.86%)	-	-	1 (14.29%)	2 (28.57%)	7 (100%)
Neck pain + Sciatica	-	-	1 (50.00%)	1 (50.00%)	-	-	2 (100%)
Neck Pain + Spine Problem	-	-	-	-	-	1 (100%)	1 (100%)
Sciatica	1 (7.14%)	3 (21.43%)	-	9 (64.29%)	-	1 (7.14%)	14 (100%)
Sciatica + Spine Problem	1 (50.00%)	-	-	1 (50.00%)	-	-	2 (100%)
Spine Problem	1 (14.29%)	3 (42.86%)	-	2 (28.57%)	1 (14.29%)	-	7 (100%)
Grand Total	4 (8.16%)	15 (30.61%)	2 (4.08%)	16 (32.65%)	6 (12.24%)	6 (12.24%)	49 (100%)

#### 4. Discussion

This study highlights the efficacy of Ayurveda’s integrated approach in treating spinal disorders. The incorporation of Meru Chikitsa emphasizes spinal alignment as a key determinant of overall health. Personalized therapies addressing physical, emotional, and dietary needs contribute to Ayurveda’s holistic framework [11].

This observational study showcases the effectiveness of Meru Chikitsa as a holistic and non-invasive therapeutic approach for managing spinal disorders. The comprehensive treatment plan, integrating external therapies, internal medications, dietary and lifestyle modifications, and stress management, demonstrated significant benefits in alleviating symptoms and improving overall well-being. Similar findings were reported in studies emphasizing Ayurvedic therapies for musculoskeletal disorders [12, 13].

The significant reduction in pain and improved mobility observed in patients underscores the effectiveness of therapies like Abhyanga, Greeva Vasti, and Pizhichil in restoring spinal alignment and facilitating the free flow of prana. Previous studies on Greeva Vasti and Pizhichil have highlighted their efficacy in reducing pain and improving spinal flexibility in patients with cervical spondylosis and low back pain [14, 15]. Internal therapies, specifically Ayurvedic formulations targeting Vata dosha, played a vital role in addressing the underlying pathology of pain and inflammation, as previously demonstrated in research on Vata-related disorders [16].

Dietary modifications tailored to pacify Vata dosha and structured exercise regimens, including yoga postures such as Bhujangasana and Halasana, contributed to sustained improvements in spinal health. Studies have shown that yoga can enhance spinal mobility, reduce pain, and improve quality of life in patients with back and neck pain [17]. Additionally, stress management techniques like pranayama and mindfulness meditation helped address the psychosomatic aspects of pain, further enhancing therapeutic outcomes [18].

The absence of adverse effects highlights the safety and applicability of this treatment approach across a wide age range. These results align with other findings that confirm the safety of non-invasive Ayurvedic therapies [19]. However, given the observational nature of the study, controlled clinical trials with larger sample sizes are recommended to further validate these findings and establish standardized protocols for Meru Chikitsa.

In conclusion, Meru Chikitsa provides a safe, effective, and holistic approach to managing spinal disorders, promoting not only physical but also emotional and mental well-being. It holds promise as an integrative therapy in the field of Ayurvedic medicine for patients seeking non-invasive alternatives to conventional treatments. Similar conclusions have been drawn in studies advocating Ayurvedic approaches for managing chronic musculoskeletal conditions [20].

In summary, the comprehensive data highlights the effectiveness of Meru Chikitsa in managing spinal disorders. Significant symptom improvement was observed across all treatment categories, with particularly strong outcomes for sciatica and isolated back pain. Female patients demonstrated slightly better resolution rates compared to males. The results underscore the potential of this integrative Ayurvedic approach as a safe, holistic treatment modality for spinal health.

#### 4.1 Strengths and Limitations

- Comprehensive treatment plan addressing both physical and psychological dimensions.
- High adherence rates with no reported complications.
- Lack of a control group limits comparative analysis.
- Small sample size restricts generalizability.

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## 5. Conclusion

The study demonstrates the potential of Ayurvedic modalities, particularly Meru Chikitsa, in alleviating spinal disorders through non-invasive, personalized care. Further research with larger cohorts and controlled designs is warranted to establish broader applicability. In conclusion, Meru Chikitsa provides a safe, effective, and holistic approach to managing spinal disorders, promoting not only physical but also emotional and mental well-being. It holds promise as an integrative therapy in the field of Ayurvedic medicine for patients seeking non-invasive alternatives to conventional treatments.

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## Compliance with ethical standards

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*Disclosure of conflict of interest*

No conflict of interest to be disclosed.

*Statement of ethical approval*

Disclosure of conflict of interest

The authors declare that there is no conflict of interests.

*Statement of informed consent*

Yes the Informed consent was obtained from all individual participants included in the study.

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