Evaluate the Effectiveness of Marma Chikitsa in the Pain Management of Brachial Neuritis: A Case Study

Dr. Vishal Verma[1], Dr. Rita Marwaha[2], Dr. Pankaj Gupta[3]

[1] M.D. Scholar Final year, PG Department of Rachna Sharir, Pt. Khushilal Sharma Govt. (Auto.) Ayurveda College and Institute Bhopal (M.P.) India.
[2]Professor & HOD, PG Department of Rachna Sharir, Pt. Khushilal Sharma Govt. (Auto.) Ayurveda College and Institute Bhopal (M.P), India.
[3]Professor, PG Department of Rachna Sharir, Pt. Khushilal Sharma Govt. (Auto.) Ayurveda College and Institute Bhopal (M.P.) India.

Abstract

Brachial neuritis, also known as Parsonage–Turner syndrome, is an acute, idiopathic, inflammatory disorder of the brachial plexus characterized by sudden onset of severe shoulder pain, followed by progressive muscle weakness, sensory disturbances, and functional impairment of the upper limb. The condition significantly affects quality of life and daily activities. Conventional management primarily focuses on symptomatic relief and functional recovery through the use of analgesics, non-steroidal anti-inflammatory drugs, corticosteroids, physiotherapy, and neural rehabilitation. Despite these interventions, recovery is often prolonged, and residual weakness or pain may persist in some patients [1]. Marma Chikitsa is an ancient Ayurvedic therapeutic modality based on the stimulation of specific vital points known as *marma*, which are believed to serve as anatomical and physiological junctions of muscles, nerves, vessels, bones, and joints. Therapeutic stimulation of marma points is traditionally used to modulate pain, improve neuromuscular function, enhance circulation, and restore energy balance. In recent years, Marma Chikitsa has gained attention as a complementary approach in musculoskeletal and neurological disorders. This case study explores the adjunctive role of Marma Chikitsa in the management of brachial neuritis alongside conventional treatment. The intervention was administered over a 12-week period using selected marma points related to the shoulder and upper limb. Clinical outcomes were assessed using standardized measures of pain intensity, muscle strength, and functional ability.

Keywords: Marma, Marma chikitsa, Brachial Neuritis

Introduction

Brachial neuritis, also referred to as Parsonage–Turner syndrome or idiopathic brachial plexopathy, is an uncommon neurological disorder characterized by acute onset of severe shoulder and upper arm pain, followed by muscle weakness, atrophy, and sensory disturbances in the distribution of the brachial plexus. The condition typically presents abruptly, often without an identifiable traumatic cause, and may be associated with preceding infections, immunizations, surgical procedures, or autoimmune mechanisms. Despite these associations, the precise etiology remains poorly understood, and the disorder is considered

primarily inflammatory in nature. The clinical course of brachial neuritis is classically biphasic, beginning with intense neuropathic pain that may persist for days to weeks, followed by the development of focal motor weakness and functional impairment of the affected upper limb. Sensory deficits and reflex changes may also be observed, though motor involvement is usually predominant. The primary characteristic symptoms of brachial neuritis are sudden unilateral or bilateral pain in the shoulder girdle, followed by the onset of muscle weakness. Sensory deficits may also be noted in some patients. Typically, the symptoms radiate to the neck, arms, and forearms and may last from a few days to an average of 4 weeks.[1]
Marma Chikitsa is a classical therapeutic modality described in Ayurveda that involves the stimulation of specific vital anatomical points known as *marma*. These points are considered important junctions of muscles, nerves, blood vessels, bones, and joints, and are believed to play a crucial role in maintaining physiological balance. Therapeutic stimulation of marma points is performed using gentle pressure, massage, or controlled manual techniques tailored to the individual's condition. From a contemporary perspective, Marma Chikitsa may influence neural pathways, modulate pain perception, and improve neuromuscular coordination. Additionally, the manual stimulation is thought to enhance local circulation, promote tissue nourishment, and support the body's innate healing mechanisms. Through these combined effects, Marma Chikitsa aims to restore homeostatic balance and improve functional outcomes in neuro-musculoskeletal disorders. [2][3]
Management of brachial neuritis is largely conservative and focuses on pain control and rehabilitation. Pharmacological treatment includes analgesics, non-steroidal anti-inflammatory drugs, and corticosteroids in the acute phase, while physiotherapy and neuromuscular rehabilitation are essential for restoring strength, maintaining joint mobility, and preventing long-term disability. Recovery is often gradual and may extend over several months to years, with some patients experiencing residual weakness or chronic pain.

Objective

To evaluate the potential role of Marma Chikitsa as an adjunctive intervention in the management of brachial neuritis.

Case Presentation

Patient Information –
Name of patient-XYZ
Age - 37 Yr/ M
Occupation – data entry operator (Computer Work)
OPD Reg No 20250038811, Date – 27-12-2025 came to PTKLS Hospital OPD in kaya chikitsa department with the following complaints -

1. Severe right shoulder pain since 4 weeks
2. Progressive weakness in right hand
3. Mild numbness.
4. Difficulty in holding object

No other associate complaints.

History of presenting complaint:
Patient was apparently normal before one month gradually he developed above symptoms due to hectic life

style and for better management he came to Pt. khushilal Govt. Ayurvedic Hospital Bhopal.

History of Past Illness No history of trauma; pain onset sudden and intense; interfered with sleep and daily activities.

Treatment history – NSAIDs, Steroids.

Diagnosis and Assessment Criteria:

- Clinically suspected **brachial neuritis** confirmed by neurologic assessment.
- Pain (8/10 VAS Scale)
- Muscle strength (Medical Research Council Scale)
    1. Shoulder abductors: 3/5
    2. Elbow Flexors: 4/5
    3. Wrist extensors: 4/5

Muscle		Score 0 - 5	MRC scale for muscle strength (0-5)
Shoulder abductors	Left		Grade 5: Normal
	Right		
Elbow flexors	Left		Grade 4: Movement against gravity and resistance
	Right		Grade 3: Movement against gravity over (almost) the full range
Wrist extensors	Left		Grade 2: Movement of the limb but not against gravity
	Right		Grade 1: Visible contraction without movement of the limb (not existent for hip flexion)
Hip flexors	Left		Grade 0: No visible contraction
	Right		
Knee extensors	Left		MRC grade for each muscle given in full numbers: (4+/4.5 =4) (4- =3) (5- = 4)
	Right		
Foot dorsiflexors	Left		
	Right		

Intervention

Marma Chikitsa Protocol[5][6]

Therapy was initiated concurrently with conventional care Two times per day for 15 Days. Following marma points related to shoulder and upper limb neuromuscular function included:

1. Kshipra Marma
2. Talahridaya Marma
3. Manibandha Marma
4. Indrabasti Marma
5. Kurpara Marma
6. Kakshadhara Marma

Each session involved:

- Gentle pressure application on Marma site with rhythmic movements
- Each *Marma* was stimulated for 0.8 sec over 15-18 times.
- This treatment was given for 15 days.

Outcome Measures

Primary Outcomes

- **Pain (VAS):** Assessed in every 5 days
- **Muscle Strength (MRC):** Assessed at baseline, 5th day, 10th day, 15th day
- **Functional Assessment:** Shoulder Pain and Disability Index (SPADI)

Secondary Outcomes

- Sleep quality
- Patient-reported satisfaction

Observation

Outcome	Baseline	5th day	10th day	15th day
Pain (NPRS)	8/10	5/10	3/10	2/10
Shoulder abductors	3/5	4/5	5/5	5/5
Elbow Flexors	4/5	4/5	5/5	5/5

Clinical Observations

- Pain reduction evident as early from 5th day
- Improvement in strength particularly around shoulder girdle muscles
- Enhanced range of motion with fewer compensatory movements
- Sleep improved; patient reported enhanced overall comfort

Result

The serial outcome measures demonstrate a clinically meaningful improvement following Marma Chikitsa intervention in a patient with brachial neuritis. Pain intensity, assessed using the Numerical Pain Rating Scale (NPRS), showed a progressive reduction from 8/10 at baseline to 2/10 by the 15th day, indicating substantial analgesic effect. Concurrently, muscle strength exhibited marked improvement. Shoulder abductor power increased from 3/5 at baseline to 5/5 by the 10th day, which was maintained through the 15th day. Elbow flexor strength improved from 4/5 to 5/5 by the 10th day, with sustained normalization thereafter.

Adverse Events

No adverse effects reported from Marma Chikitsa

Discussion

This case revealed significant reductions in pain, improvements in muscle strength, and functional gains following Marma Chikitsa alongside standard care. While recovery in brachial neuritis can occur naturally over time, the rapid improvement observed suggests a potential adjunctive benefit.

Possible Mechanisms

- **Neural Modulation:** Stimulation of marma points may impact peripheral nerve function and pain pathways.

- **Improved Circulation:** Manual stimulation can enhance microvascular blood flow, facilitating nutrient delivery and metabolic clearing.
- **Neurophysiological Effects:** Marma therapy may engage sensory receptors influencing central pain modulation circuits.
- **Gate control theory -** Non-painful sensory input (e.g., touch or pressure) activates inhibitory neural mechanisms in the spinal cord that "close the gate" to painful stimuli. This modulation at the dorsal horn regulates pain transmission to the brain.

Conclusion

In this case of brachial neuritis, Marma Chikitsa administered as an adjunct to conventional therapy was associated with marked improvements in pain, muscle strength, and functional outcomes without adverse effects. It suggests potential complementary benefits; however, controlled clinical trials are required to establish efficacy and mechanisms.

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