

AVABAHUKA (FROZEN SHOULDER) IN AYURVEDA: A CRITICAL REVIEW WITH SPECIAL REFERENCE TO *MARMA CHIKITSA* AND CLINICAL OUTCOMES

Md Shahir Ansari^{*1}, Surendra Kumar², Prof (Dr.) Shyam Sundar Gupta³

^{1,2}PG Scholar of Rachana Sharir, ³Professor and H.O.D.

Department of Rachana Sharir. G.A.C.H Kadamkuan, Patna-3.

Article Received on 27 July 2026,
Article Revised on 17 August 2026,
Article Published on 01 Sept. 2026,

<https://doi.org/10.5281/zenodo.22156655>

*Corresponding Author

Md Shahir Ansari

PG Scholar of Rachana Sharir,
Department of Rachana Sharir.
G.A.C.H Kadamkuan, Patna-3.



How to cite this Article: Md Shahir Ansari^{*1}, Surendra Kumar², Prof (Dr.) Shyam Sundar Gupta³. (2026). Avabahuka (Frozen Shoulder) In Ayurveda: A Critical Review with Special Reference To Marma Chikitsa and Clinical Outcomes. World Journal of Pharmaceutical Research, 15(17), 20-29.

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ABSTRACT

Avabahuka is a *Vata Vyadhi* characterised by pain, stiffness, and restricted movements of the shoulder joint. Classical *Ayurvedic* texts describe the condition as resulting from aggravated *Vata* localised in the *Amsa Pradesh*, causing *shoshana* of *Amsa Bandhana* and *akunchana* of *sira*, leading to *Bahupraspandahara*. Contemporary medicine primarily associates *Avabahuka* with adhesive capsulitis (frozen shoulder). The present review critically evaluates classical *Ayurvedic* concepts of *Avabahuka* along with *Nidana Panchaka*, *Samprapti*, *Marma* involvement, and therapeutic principles. Special emphasis is placed on *Marma Chikitsa* and its clinical outcomes in *Avabahuka*. A clinical study involving 30 patients treated with stimulation of *Amsa*, *Ansaphalaka*, and *Brihati Marmas* demonstrated statistically highly significant improvement in pain and range of motion parameters. Pain reduced by 70.51%, abduction improved by 62.5%, flexion by

70%, and extension by 56.7% ($p < 0.001$). The probable mode of action of *Marma* therapy has also been explored through integrated *Ayurvedic* and neurophysiological perspectives. This review highlights the therapeutic potential of *Marma Chikitsa* as a safe, non-invasive, and functionally restorative intervention in frozen shoulder and emphasises the need for evidence-based integrative musculoskeletal research.

KEYWORDS: *Avabahuka*, Frozen Shoulder, Adhesive Capsulitis, *Marma Chikitsa*, *Amsa*

Marma, Vata Vyadhi, Ayurveda.

INTRODUCTION

Shoulder pain and restricted mobility are among the most common musculoskeletal complaints affecting functional capacity and quality of life. Frozen shoulder, also known as adhesive capsulitis, is characterised by progressive pain and severe restriction of shoulder movements. *Ayurveda* describes a comparable condition under the term *Avabahuka*, classified under *Vata Vyadhi*.

Acharya Sushruta describes Avabahuka as

“*Amsadesasthito vayuḥ soṣayitvaṃsabandhanam |*
Sirasca akuncya tatra-stho janayet avabahukam ||”

The aggravated *Vata* localised in the shoulder region causes drying and constriction of supporting structures, resulting in *Bahupraspandahara* (restricted arm movement).

Ayurveda considers *Marma* as vital anatomical sites formed by the union of *Mamsa*, *Sira*, *Snayu*, *Asthi*, and *Sandhi*. *Amsa Marma* plays a critical role in shoulder movement and functional integrity. Dysfunction of this *Marma* may produce symptoms resembling *Avabahuka*. Modern treatment modalities for frozen shoulder often provide incomplete relief and prolonged rehabilitation. Therefore, traditional non-invasive approaches such as *Marma Chikitsa* are gaining increasing scientific interest.

AIM

To critically evaluate *Avabahuka* with special reference to *Marma Chikitsa* and its clinical efficacy in frozen shoulder.

OBJECTIVES

1. To review classical Ayurvedic concepts of *Avabahuka*.
2. To analyse *Nidana Panchaka* and *Samprapti*.
3. To study the role of *Amsa Marma* in *Avabahuka*.
4. To correlate *Avabahuka* with adhesive capsulitis.
5. To evaluate clinical outcomes of *Marma Chikitsa*.

MATERIALS AND METHODS

STUDY DESIGN

The present study was conducted as an open-label interventional clinical study to evaluate the efficacy of *Prishtha Marma Chikitsa* in *Avabahuka* patients.

STUDY SETTING

The study was conducted at the Government Ayurvedic College and Hospital, Patna. Thirty clinically diagnosed patients of *Avabahuka* were enrolled after obtaining informed consent.

INCLUSION CRITERIA

- Age between 18–60 years
- Classical symptoms of *Avabahuka*
- Restricted shoulder movements
- Willingness to participate

EXCLUSION CRITERIA

- Shoulder dislocation
- Rheumatoid arthritis
- Malignancy
- Neurological deficits
- Pregnancy and lactation
- Severe systemic disease

DIAGNOSTIC CRITERIA

AYURVEDIC PARAMETERS

- Amsa Sandhi Shoola
- Stambha
- Bahu *Prasara–Akshepa Hani*

MODERN PARAMETERS

Clinical diagnosis of adhesive capsulitis.

HISTORICAL REVIEW OF AVABAHUKA

Avabahuka is described by *Sushruta*, *Vagbhata*, *Madhavakara*, and *Chakradatta* as a *Vata*-dominant disorder affecting the shoulder joint. *Madhavakara* considers it predominantly *Vata*-*Kaphaja*, while *Chakradatta* recommends *Sneha*, *Nasya*, and *Swedana* therapies.

NIDANA PANCHAKA**NIDANA**

Important etiological factors include:

- Ativyayama
- Bharavahana
- Abhighata
- Poor posture
- Sedentary lifestyle
- Exposure to cold
- Degenerative changes

RUPA

- Bahupraspandahara
- Shoola
- Stambha

SAMPRAPTI

Nidana Sevana causes *Vata Prakopa*, which localises in *Amsa Sandhi*, producing:

- Shleshaka Kapha Kshaya
- Snayu Shoshana
- Sankocha
- Restricted movement

MARMA CONCEPT IN AVABAHUKA

Marma are vital neurovascular-musculoskeletal junctions essential for functional coordination.

Amsa Marma is closely associated with shoulder mobility. Important *Marmas* used therapeutically:

- Amsa Marma
- Ansaphalaka Marma
- Brihati Marma

MARMA CHIKITSA PROCEDURE**PATIENT POSITION**

Patients were placed in a sitting or supine position with relaxed shoulder posture.

PROCEDURE**SPARSHANA**

Gentle palpation was done to identify tenderness.

MARDANA

- Thumb pressure stimulation
- Circular and vertical pressure
- 12–15 repetitions/session
- Pressure maintained for 3–5 seconds

BREATH SYNCHRONIZATION

Pressure is applied during exhalation and released during inhalation.

PASSIVE MOBILIZATION

Assisted shoulder flexion and abduction were performed after stimulation.

DURATION

- Two sittings daily
- Six days/week
- 15–20 minutes/session
- Total duration: 60 days

OBSERVATION AND RESULTS**DEMOGRAPHIC AND LIFESTYLE OBSERVATIONS**

Most *Avabahuka* patients belonged to urban populations (60%), suggesting an association with sedentary lifestyle and postural strain. *Vata Prakriti* was predominant (40%), confirming the *Vata*-dominant nature of the disease. Chronic presentation (>6 months) was observed in 53.3% of patients. Poor posture was present in 60% of cases. A sedentary lifestyle predominated in 60% of patients. Absence of exercise was noted in 56.67% of patients, suggesting poor muscle conditioning and *Vata* aggravation. Nutritional deficiency was present in 70% of patients, indicating compromised *Dhatu* nourishment. Seasonal aggravation during *Varsha Ritu* was observed in 53.33% of patients.

CLINICAL OUTCOME EVALUATION**PAIN (VAS)**

Pain score reduced from 7.80 before treatment to 2.30 after treatment with 70.51% relief. The

improvement was statistically highly significant ($t = 18.33$, $p < 0.001$).

MARMA PERSPECTIVE

Pain reduction indicates correction of *Vata* vitiation at *Amsa* and *Ansaphalaka Marma* through:

- Restoration of Vyana Vayu
- Improved Prana Sancharana
- Neuromuscular relaxation

ABDUCTION

Abduction improved from 75° to 140° , showing 62.5% improvement ($p < 0.001$).

INTERPRETATION

Improvement reflects a reduction in capsular stiffness and restoration of *Snayu* flexibility.

FLEXION

Flexion improved from 80° to 150° with 70% improvement ($p < 0.001$).

MARMA INTERPRETATION

Improvement suggests restoration of tissue elasticity, muscular synchronisation, and shoulder biomechanics.

EXTENSION

Extension improved from 25° to 42° with 56.7% relief ($p < 0.001$). Posterior capsular stiffness and chronic *Snayu* involvement responded gradually but significantly.

OVERALL CLINICAL INTERPRETATION

All clinical parameters showed statistically highly significant improvement ($p < 0.001$). The intervention demonstrated:

- Significant pain reduction
- Restoration of mobility
- Improved neuromuscular coordination
- Functional recovery

From an Ayurvedic perspective, results indicate

- Vata Shamana
- Srotoshodhana
- Snayu–Sandhi restoration

- Improved *Dhatu* nourishment

PROBABLE MODE OF ACTION OF MARMA THERAPY

Marma therapy appears to act through multidimensional mechanisms integrating *Ayurvedic* and neurophysiological principles.

AYURVEDIC PERSPECTIVE

Marma stimulation:

- Regulates Vata Dosha
- Restores Prana flow
- Clears Srotorodha
- Enhances *Dhatu Poshana*

NEUROPHYSIOLOGICAL MECHANISM

Marma points correspond to neurovascular and fascial intersections rich in mechanoreceptors.

Stimulation activates:

- A-beta fibres
- Gate control pain modulation
- Descending inhibitory pathways
- Endorphin release

MYOFASCIAL EFFECTS

Marma stimulation may:

- Break fascial adhesions
- Improve tissue glide
- Reduce muscular tightness
- Restore biomechanics

MICROCIRCULATORY ENHANCEMENT

Mechanical stimulation improves:

- Capillary perfusion
- Oxygen delivery
- Lymphatic drainage
- Removal of inflammatory mediators

AUTONOMIC REGULATION

Marma therapy may shift autonomic balance toward parasympathetic dominance resulting in:

- Muscle relaxation
- Reduced stress response
- Improved healing

DISCUSSION

Avabahuka is a *Vata*-dominant disorder involving *Aṃsa Sandhi*, *Snayu*, and *Marma* structures, clinically resembling frozen shoulder. Classical Ayurvedic literature explains its pathogenesis through *Vata Prakopa*, *Sleşhaka Kapha Kṣaya*, *Snayu Saṅkocha*, and *Srotorodha*, leading to pain, stiffness, and restricted shoulder movements. Modern anatomical understanding correlates *Aṃsa* and *Aṃsaphalaka Marmas* with neurovascular, myofascial, and capsular structures responsible for shoulder stability and mobility. Dysfunction in these regions produces capsular tightness, muscular imbalance, and neuromuscular restriction similar to adhesive capsulitis. The present study demonstrated a statistically highly significant improvement in pain and range of motion following *Marma Chikitsa*. Pain reduction of nearly 70%, along with marked improvement in flexion, abduction, and functional mobility, indicates effective *Vata Samana* and restoration of *Prāṇa Sancharana*. Functional recovery was more prominent than structural correction, suggesting early restoration of neuromuscular coordination and shoulder biomechanics. *Marma Chikitsa* likely acts through neuromuscular modulation, fascial release, improved microcirculation, reduction of inflammation, and normalisation of *Vyana Vayu*. The therapy restores physiological balance while reducing stiffness and improving mobility. Thus, the integrated *Ayurvedic* and modern review supports *Marma Chikitsa* as a safe, non-invasive, and clinically effective therapeutic approach for *Avabahuka* and validates its role in evidence-based musculoskeletal rehabilitation.

CONCLUSION

Avabahuka is a *Vata*-dominant musculoskeletal disorder characterised by pain, stiffness, and restricted shoulder movements due to pathological involvement of *Snayu*, *Sandhi*, and *Marma* structures. *Marma Chikitsa* targeting *Aṃsa*, *Aṃsaphalaka*, and *Brihati Marmas* demonstrated a statistically highly significant improvement in pain and shoulder mobility. The therapy appears to act through integrated neurophysiological, myofascial, circulatory, and autonomic mechanisms while simultaneously producing *Vata Shamana* and restoration of *Prana* flow.

The study supports *Marma* therapy as a safe, non-invasive, and effective intervention for frozen

shoulder. Further multicentric randomised controlled trials with imaging and biomechanical assessment are recommended for scientific validation.

REFERENCES

1. Agnivesha. *Charaka Samhita*. Revised by Charaka and Dridhabala. Acharya JT, editor. 5th ed. Varanasi: Chaukhambha Orientalia, 2009.
2. Sushruta. *Sushruta Samhita*. Acharya JT, editor. 9th ed. Varanasi: Chaukhambha Orientalia, 2007.
3. Vagbhata. *Ashtanga Hridaya*. Paradkar HS, editor. Reprinted. Varanasi: Chaukhambha Surbharati Prakashan, 2010.
4. Vagbhata. *Ashtanga Sangraha*. Sharma S, editor. Varanasi: Chaukhambha Sanskrit Series Office, 2008.
5. Bhela. *Bhela Samhita*. Krishnamurthy KH, editor. Varanasi: Chaukhambha Vishvabharati, 2006.
6. Kashyapa. *Kashyapa Samhita*. Sharma H, editor. Varanasi: Chaukhambha Sanskrit Series Office, 2009.
7. Sharangadhara. *Sharangadhara Samhita*. Varanasi: Chaukhambha Orientalia, 2013.
8. Bhavamishra. *Bhavaprakasha*. Chunekar KC, editor. Varanasi: Chaukhambha Bharati Academy, 2010.
9. Madhavakara. *Madhava Nidana*. Varanasi: Chaukhambha Sanskrit Series Office, 2012.
10. Vriddha Vagbhata. *Ashtanga Sangraha*. Varanasi: Chaukhambha Sanskrit Series Office, 2008.
11. Dalhana. *Nibandha Sangraha Commentary on Sushruta Samhita*. Varanasi: Chaukhambha Orientalia, 2012.
12. Chakrapanidatta. *Ayurveda Dipika Commentary on Charaka Samhita*. Varanasi: Chaukhambha Orientalia, 2011.
13. Arundatta. *Sarvangasundara Commentary on Ashtanga Hridaya*. Varanasi: Chaukhambha Orientalia, 2012.
14. Hemadri. *Ayurveda Rasayana Commentary*. Varanasi: Chaukhambha Sanskrit Series Office, 2008.
15. Gayadasa. *Nyayachandrika Commentary*. Varanasi: Chaukhambha Orientalia, 2009.
16. Jejjata. *Commentary on Charaka Samhita*. Varanasi: Chaukhambha Orientalia, 2007.
17. Amarasimha. *Amarakosha*. Varanasi: Chaukhambha Sanskrit Series Office, 2009.
18. Radhakanta Deva R. *Shabdakalpadruma*. Varanasi: Chaukhambha Sanskrit Series Office,

2010.

19. Tarkavachaspati T. *Vachaspatyam*. Varanasi: Chaukhambha Sanskrit Series Office, 2008.
20. Halayudha. *Abhidhana Ratnamala*. Varanasi: Chaukhambha Sanskrit Series Office, 2006.
21. Madanapala. *Madanapala Nighantu*. Varanasi: Chaukhambha Orientalia, 2009.
22. Kaiyadeva. *Kaiyadeva Nighantu*. Varanasi: Chaukhambha Orientalia, 2011.
23. Raja Nighantu. Varanasi: Chaukhambha Orientalia, 2008.
24. Kautilya. *Arthashastra*. Shamasasthy R, translator. Mysore: Government Press, 1915.
25. *Atharva Veda*. Varanasi: Chaukhambha Sanskrit Series Office, 2007.
26. *Rig Veda*. Varanasi: Chaukhambha Sanskrit Series Office, 2006.
27. Standring S, editor. *Gray's Anatomy: The Anatomical Basis of Clinical Practice*. 41st ed. London: Elsevier, 2016.
28. Moore KL, Dalley AF, Agur AMR. *Clinically Oriented Anatomy*. 7th ed. Philadelphia: Wolters Kluwer, 2014.
29. Snell RS. *Clinical Anatomy by Regions*. 9th ed. Philadelphia: Wolters Kluwer; 2012.
30. Cunningham DJ. *Cunningham's Manual of Practical Anatomy*. 15th ed. Oxford: Oxford University Press, 2013.
31. Chaurasia BD. *Human Anatomy*. 6th ed. New Delhi: CBS Publishers, 2015.
32. Vishram Singh. *Textbook of Anatomy*. 2nd ed. New Delhi: Elsevier, 2014.
33. Drake RL, Vogl AW, Mitchell AWM. *Gray's Student Anatomy*. 3rd ed. Philadelphia: Elsevier, 2018.
34. Netter FH. *Atlas of Human Anatomy*. 7th ed. Philadelphia: Elsevier, 2019.
35. Agur AMR, Dalley AF. *Grant's Atlas of Anatomy*. 14th ed. Philadelphia: Wolters Kluwer, 2017.
36. Ellis H. *Clinical Anatomy*. 13th ed. Oxford: Wiley-Blackwell, 2013.
37. Last RJ. *Last's Anatomy: Regional and applied*. 12th ed. Edinburgh: Churchill Livingstone, 2011.
38. Rohen JW, Yokochi C, Lutjen-Drecoll E. *Color Atlas of Anatomy*. 7th ed. Philadelphia: Wolters Kluwer, 2015.
39. Guyton AC, Hall JE. *Textbook of Medical Physiology*. 13th ed. Philadelphia: Elsevier, 2016.