

# The Clinical and Therapeutic Role of Viddha Karma at Amsa Marma in The Management of Avabahuka (Frozen Shoulder)

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## ABSTRACT

**Background:** Avabahuka is a distinct musculoskeletal and neurological condition categorized under Vata Vyadhi, presenting a significant clinicopathologic correlation with adhesive capsulitis or frozen shoulder. It severely impacts the shoulder joint, restricting multi-planar ranges of motion and inducing agonizing pain. Modern therapies offer temporary symptomatic respite, often accompanied by long-term adverse physiological footprints. Ayurveda proposes highly specialized parasurgical interventions, among which *Viddha Karma* (blood-letting/micro-puncturing technique) combined with structural *Marma Chikitsa* yields immediate, sustainable therapeutic success.

**Objective:** This comprehensive treatise examines the clinical efficacy, structural neuro-anatomical substrate, and procedural paradigm of administering Viddha Karma specifically localized at the *Amsa Marma* grid for managing Avabahuka.

**Methodology:** A structured integration of ancient classical literature (Sushruta Samhita, Ashtanga Hridaya) with contemporary pathophysiological parameters of adhesive capsulitis was undertaken. Clinical evaluation patterns, needle gauge mechanics, micro-puncture positioning, and post-procedure pathways are rigorously outlined.

**Results:** Micro-puncturing at the anatomical perimeter of Amsa Marma acts via multi-modal loops: immediate localized de-congestion of blocked *Vata* and *Rakta*, stimulation of deep neuro-vascular complexes, local release of endogenous opioids, and systematic disruption of intra-capsular fibrous adhesions.

**Conclusion:** Viddha Karma at Amsa Marma represents an ultra-rapid, safe, minimally invasive, and economically viable breakthrough treatment model. It transforms the prognosis of chronic, resistant stages of frozen shoulder, establishing itself as a vital tool in contemporary global integrative rheumatology.

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## INTRODUCTION

The shoulder joint, anatomically classified as a multi-axial ball-and-socket synovial joint, possesses the highest degree of mobility among all joints within the human musculoskeletal apparatus. This architectural freedom, however, compromises structural stability, rendering the joint susceptible to a wide spectrum of degenerative, inflammatory, and obstructive pathologies. Among these, Adhesive Capsulitis—commercially and clinically designated as Frozen Shoulder—stands out as a highly disabling condition characterized by an insidious onset of debilitating pain, progressive restriction of active and passive gleno-humeral motions, and profound functional impairment of the upper extremity.

In the system of Ayurvedic medicine, this presentation is recognized under the umbrella of *Vata Vyadhi* (neurological and musculoskeletal disorders mediated primarily by vitiated Vata Dosha) and specifically diagnosed as **Avabahuka**. Acharya Sushruta, the pioneer of surgical and parasurgical therapeutics, identified the root etiology of Avabahuka as the localization of localized *Amsa-mula-stha Vata* (Vata situated at the root of the shoulder joint) which subsequently causes the desiccation and constriction of the local *Siras* (vessels, nerves, and fascial strands), culminating in severe painful immobility.

## PATHOPHYSIOLOGY OF AVABAHUKA

To completely understand the clinical impact of Viddha Karma, it is first necessary to map the classical Ayurvedic pathogenesis (Samprapti) of Avabahuka and translate its

mechanisms into contemporary pathological definitions. The process unfolds through specific, traceable metabolic and energetic stages.

### *The Classical Ayurvedic Samprapti (Pathogenesis)*

The manifestation of Avabahuka initiates due to a combination of factors: over-exertion (Abhighata or Ati-vyayama), consumption of unctuous-depleted food (Ruksha Ahara), chronic degenerative changes (Dhatu Kshaya), or severe localized trauma. These triggers directly lead to the aggravation of *Vyana Vayu* and *Shleshaka Kapha* balance. Under normal physiological circumstances, Shleshaka Kapha is localized within the joints (Sandhi), providing structural lubrication, shock absorption, and nourishment. When Vata becomes profoundly dry (Ruksha) and rough (Khara), it actively desiccates this essential lubricating fluid.

As a direct clinical consequence, the *Sleshma-dhara Kala* (synovial membrane) loses its bio-elastic properties. The dry Vata then localizes at the *Amsa Mula* (the foundational root of the shoulder joint, which anatomically maps to the gleno-humeral ligaments, subacromial bursa, and rotator cuff insertion lines). This induces a state of *Sira-Sankocha* (constriction of channels) and *Stambha* (rigidity). The localized structural pathways (Srotas) get blocked, leading to a state of localized *Sanga* (ischemia and structural stasis).

### *Modern Disease Correlation: Adhesive Capsulitis*

From a modern orthopedic perspective, this exact sequence mirrors the progression of adhesive capsulitis. The primary pathology resides within the joint capsule and the rotator-

cuff interval. It involves a chronic, low-grade inflammatory fibroproliferative response. This is characterized by significant modern pathological markers:

- Synovial hypervascularity and localized dense cellular infiltrates during the initial freezing phase.
- Progressive collagen deposition, fibroblastic and myofibroblastic proliferation inside the joint capsule.
- Forming of tight intra-articular adhesions, causing the capsule to fuse to the anatomical neck of the humerus.
- A drastic reduction in intra-articular volume, dropping from a normal 15-20 mL down to less than 5 mL.

The result of this capsule contraction is a progressive loss of external rotation, abduction, and internal rotation, which perfectly matches the classical symptoms of Avabahuka described thousands of years ago.

## STRUCTURAL AND NEURO-ANATOMICAL STUDY OF AMSA MARMA

The selection of the precise site for any invasive or micro-puncture intervention in Ayurveda is guided by the science of *Marma Vidvatta* (vital anatomical points). Marma points are not mere metaphysical locations; they represent precise anatomical intersections where five structural components meet: *Mamsa* (muscles), *Sira* (vascular and neural structures), *Snayu* (ligaments and tendons), *Asthi* (bones), and *Sandhi* (joints).

### Classical Typology of Amsa Marma

According to the classification established by Acharya Sushruta, Amsa Marma possesses specific characteristics:<sup>1</sup>

- **Structural Classification:** It is classified primarily as a *Snayu Marma*, indicating that the dominant tissues forming this vital zone are tendons, ligaments, and fascial systems.
- **Prognostic Classification:** It is designated as a *Vaikalyakara Marma*. Injury or improper trauma to this point does not cause death, but directly results in structural deformity, chronic dysfunction, or permanent loss of motion.
- **Dimensional Measurement:** It measures exactly half an Angula (approximately 1 to 1.25 cm in diameter) in its functional epicentre.
- **Location:** It is situated at the upper aspect of the back, specifically at the junction binding the shoulder, neck, and scapular ridge (Amsa Pitha).

### Modern Neuro-Anatomical Mapping

When we project the coordinates of Amsa Marma onto a modern human cadaveric map, it corresponds to the

| Ayurvedic Action Pattern          | Modern Physiological Equivalent         |
|-----------------------------------|-----------------------------------------|
| Sira De-congestion / Vata Release | Local Vasodilation and Ischemic Washout |
| Stambha Hara (Rigidity Removal)   | Disruption of Myofascial Trigger Points |

This micro-trauma triggers a localized healing response without leaving any structural scar tissue, making it uniquely suited for chronic fibroproliferative conditions.<sup>3</sup>

## CLINICAL METHODOLOGY OF VIDDHA KARMA AT AMSA MARMA

superior-medial angle of the scapula and the lateral aspect of the trapezius muscle, directly overlying the supraspinatus fossa. The specific anatomical substrates integrated into this Marma grid include:

- **Neural Substrates:** The Suprascapular Nerve (C5-C6 origin), which provides 70% of the sensory innervation to the gleno-humeral capsule, and the Accessory Nerve (Cranial Nerve XI) supplying the trapezius.
- **Vascular Substrates:** The Supra scapular Artery and the Transverse Cervical Artery, which form an important collateral circulatory network around the scapula.
- **Musculoskeletal Substrates:** The insertions of the Levator Scapulae, the origin fibers of the Supraspinatus muscle, and the superior fibers of the Trapezius muscle.

Therefore, any micro-puncture at Amsa Marma directly stimulates this dense neuro-vascular bundle, making it the perfect anatomical target for treating pathologies of the shoulder complex.

## THE CONCEPT AND MECHANICS OF VIDDHA KARMA

Viddha Karma is a highly refined, specialized parasurgical procedure (Anushastra Karma) developed extensively by the ancient school of Ayurvedic surgery. It involves making a controlled micro-puncture at specific points using customized hollow or solid needles. It is often understood as a brilliant clinical bridge between Raktamokshana (blood-letting) and neuro-stimulation.

### Historical and Philosophical Foundations

While classic *Siravyadha* (venesection) is designed for large-scale systemic purification when Doshas are flooded throughout the bloodstream, Viddha Karma is a targeted local therapy. It is specifically indicated for conditions where aggravated Vata, mixed with subtle structural impurities (Rakta), becomes deeply locked within dense tissues like ligaments (Snayu), bones (Asthi), and joints (Sandhi). The philosophy states that inserting a sharp instrument into a pressurized, ischemic zone releases trapped gases (Vata) and stagnant fluid, instantly relieving painful tension.<sup>2</sup>

### Micro-Needling Dynamics and Modern Physiology

From the perspective of contemporary pain science and micro-vascular physiology, inserting a sterile needle into a Marma zone initiates three distinct therapeutic cascades:

|                                    |                                               |
|------------------------------------|-----------------------------------------------|
| Vedana Sthapana (Pain Relief)      | Segmental Pain Inhibition & Endorphin Release |
| Srotas Shodhana (Channel Clearing) | Axonal Reflex Stimulation and Tissue Repair   |

To achieve consistent therapeutic success and guarantee absolute patient safety, Viddha Karma must follow a strict, standardized clinical protocol divided into three classical surgical stages: Purva Karma (Pre-procedural), Pradhana

Karma (Primary procedure), and Paschat Karma (Post-procedural).

**Purva Karma (Pre-procedural Preparation)**

- **Patient Selection & Consent:** Confirm diagnosis of Avabahuka. Rule out absolute contraindications (hemophilia, active local malignancies, skin infections at the site, uncontrolled diabetes). Secure informed written consent. All patients took from Shalyatantra OPD - GS Ayurveda medical college and hospital Pilkhuwa UP.
- **Anatomical Land mark Identification:** Place the patient in a comfortable sitting position with the spine straight. Palpate the superior-medial angle of the scapula. Identify the most tender point within the 1-Angula radius of the Amsa Marma grid. Mark this spot with a sterile surgical marker.
- **Sterilization Protocol:** Clean the marked site using an antiseptic solution like chlorhexidine or 70% isopropyl alcohol, working in an outward spiral. Allow it to air-dry completely.
- **Equipment Preparation:** Open a fresh, sterile disposable scalp vein set (such as a 24 G or 26 G 'butterfly' needle) or a standardized acupuncture needle (0.30mm x 25mm), based on the patient's build.

**Pradhana Karma (The Primary Micro-Puncture Procedure)**

- **Needle Insertion Technique:** Stretch the skin around the marked Amsa Marma point using the non-dominant thumb and forefinger. Hold the sterile needle firmly with the dominant hand.
- **Angle and Depth:** Insert the needle quickly and precisely at a **90-degree perpendicular angle** relative to the skin surface. The depth of penetration must be carefully controlled, tracking between **0.5 to 1.0 Angula** (approx. 6mm to 12mm), ensuring it reaches the deep subcutaneous and fascial layers without touching the scapular periosteum.
- **Retention and Manipulation:** The needle can be gently rotated clock wise to trigger a local neuro-vascular response (achieving the 'De-Qi' or localized heaviness sensation). For simple Viddha Karma, retain the needle for 30 to 45 seconds. If using a hollow butterfly needle, allow a few drops (2-5 drops) of dark, stagnant blood to express naturally into the tube, which signifies the clearance of localized

Rakta-Avara-Vata.<sup>4</sup>

**Paschat Karma (Post-procedural Protocol)**

- **Hemostasis & Dressing:** Withdraw the needle swiftly. Apply direct digital pressure using a sterile cotton swab for 60 seconds until bleeding stops completely. Dab the area with Haridra Churna (pure turmeric powder) or Shatadhauta Ghrita for natural antimicrobial protection.<sup>5</sup>
- **Immediate Mobilization:** This is a critical clinical step. Instantly ask the patient to perform gentle, passive and active ranges of motion (abduction, forward flexion) to distribute local fluids and reprogram joint mechanics.

**MODE OF ACTION OF VIDDHA KARMA AT AMSA MARMA**

The immediate, often dramatic, restoration of shoulder mobility following Viddha Karma at Amsa Marma cannot be explained by a single mechanical pathway. Instead, it relies on a complex network of physiological, neurological, and bio-energetic responses operating simultaneously.<sup>6</sup>

**De-obstruent Action on Srotas (Srotas Shodhana)**

In Avabahuka, the pathology is dominated by *Sanga* (structural blockage) within the local micro-channels (Vata-vaha and Rakta-vaha Srotas). The micro-puncture creates an instant exit point for pressurized, localized Vata. By releasing a microscopic amount of stagnant blood, it removes the physical obstruction holding back local circulation. This process, known as *Avarana-Bhanga* (breaking the pathological blockage), allows fresh, nutrient-rich arterial blood and balanced Vyana Vayu to flow freely back into the gleno-humeral capsule, quick starting tissue regeneration.

**Neurological Mechanism: Gate Control & Endorphin Release**

From a neuro-anatomical perspective, the needle stimulates the high-threshold mechano receptors and A-alpha/A-beta sensory nerve fibers running through the Amsa Marma zone. These rapidly conducting signals travel up the spinal cord to out-run the slow pain signals carried by unmyelinated C-fibers. This effectively closes the 'pain gate' within the dorsal horn of the spinal cord.<sup>7</sup>

Simultaneously, this deep stimulation triggers the periaqueductal gray (PAG) matter in the brain to release endogenous opioids, including beta-endorphins, enkephalins, and dynorphins. These hormones act as natural analgesics, producing instant pain relief that breaks the chronic *Pain -> Muscle Spasm -> Immobility -> Deeper Pain* loop typical of frozen shoulder.

**Mechanical Debridement of Fascial Adhesions**

At the structural level, chronic inflammation turns the joint capsule into a web of dense, disorganized collagen fibers. Inserting a needle perpendicular to the Amsa Marma zone acts like a localized microscopic debridement. The mechanical rotation and micro-puncture create a localized surge of nitric oxide (NO). This causes immediate vasodilation, relax extense myo fascial bands in the trapezius and supra spinatus muscles, and alters intra-capsular pressure. This pressure shift helps stretch out the fibrotic tissue, allowing for an immediate expansion in the joint's range of motion.<sup>8</sup>

**CLINICAL OBSERVATIONS, SAFETY PARAMETERS, AND CASE METRICS**

To validate this traditional technique within modern scientific frameworks, clinical observation models use standardized orthopedic rating scales. These include the Visual Analogue Scale (VAS) for pain assessment and Goniometric measurements for the shoulder joint's range of motion (ROM).

**Expected Clinical Milestones across Treatment Sessions**

A typical clinical course spans 6 to 8 therapeutic sessions administered twice a week. The progression of recovery regularly mirrors the following milestones:<sup>9</sup>

- **Immediate Post-Procedure (Minutes):** A noticeable drop in acute pain score (typically dropping from VAS 8/10 down to 4/10). The patient often experiences an immediate 15-to-30 degree improvement in passive abduction.
- **Session 3 to 4 (Week2):** A significant reduction in night pain, which drastically improves sleep quality. Localized stiffness around the scapular spine begins to soften.
- **Session 7 to 8 (Week 4):** Complete stabilization of pain scores (VAS remaining below 2/10). Active external rotation and abduction return to near-normal baseline levels, allowing the patient to return to independent activities of daily living.

#### **Complication Management and Safety Parameters**

Viddha Karma is incredibly safe, provided the practitioner maintains a strict anatomical focus. Side effects are minimal and easy to manage:<sup>10</sup>

- **Transient Ecchymosis (Mild Bruising):** Occasionally occurs in vascular individuals. Reassure the patient; it self-resolves within 48 hours without treatment.
- **Needle Sensation/Ache:** A dull, localized ache may persist for a few hours. Applying external local packs of Jatyadi Taila or Dashamoola Kwatha quickly soothes the area.
- **Vasovagal Syncope (Dizziness):** Rare, but can happen in needle-phobic individuals. Avoid this by always performing the procedure with the patient safely seated or lying down, ensuring they never watch the needle insertion.<sup>11</sup>

#### **Absolute Clinical Precautions**

Never pierce deeper than 1.5 Angulas to eliminate any risk of hitting the pleural apex or causing a pneumothorax. Avoid using dirty or blunt needles, and never perform the treatment on an empty stomach (Abhakta), as this increases the risk of dizziness.<sup>12</sup>

#### **DISCUSSION AND FUTURE SCOPE**

Managing Avabahuka (Frozen Shoulder) in modern clinical practice remains a difficult challenge. Standard treatments like oral non-steroidal anti-inflammatory drugs (NSAIDs) carry risks of gastrointestinal toxicity and renal strain. Intra-articular corticosteroid injections provide only short-term relief and can accelerate local tendon degeneration over time. Physical therapy, while vital, is often too painful for patients to tolerate during the acute inflammatory phase. In this clinical landscape, Viddha Karma at Amsa Marma emerges as an exceptional alternative. It is highly effective, fast-acting, and costs next to nothing. By combining the deep tissue targets of Marma science with the rapid relief of micro-puncturing, it fixes both the energetic imbalance (Vata stasis) and the physical restriction (capsular fibrosis). This makes it an ideal choice for multi-disciplinary integrative pain clinics worldwide.

Future research should focus on large-scale, randomized controlled trials that back up clinical findings with objective diagnostic tools, like musculoskeletal ultrasound (MSK-US) or shoulder MRIs. These tools can visually track

changes in joint capsule thickness before and after Viddha Karma treatments.

#### **CONCLUSION**

This comprehensive review confirms that **Viddha Karma performed precisely at the Amsa Marma grid provides an ultra-rapid, safe, and highly effective therapeutic solution for Avabahuka (Adhesive Capsulitis)**. By rapidly clearing localized Vata blockages, lowering pain signals through neurological pathways, and breaking up physical tissue adhesions, this traditional parasurgical technique offers lasting clinical relief. It successfully bypasses the need for long-term medications or risky surgeries, establishing itself as a premier, evidence-based choice for modern integrative rheumatology and holistic pain management.

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