Review Article

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A COMPREHENSIVE REVIEW ON LOHITAKSHA MARMA WITH SPECIAL REFERENCE TO ITS APPLIED SIGNIFICANCE

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ABSTRACT

Marma science is a cornerstone of classical Ayurveda that links anatomy, physiology, pathology and therapeutics through specific vital points. Lohitaksha Marma is a critical vital point described in Ayurveda, located at the root of the thigh and arm near the hip and shoulder joints, respectively. Structurally, it is categorized as a Sira Marma. Any injury to this Marma can result in severe bleeding, paralysis (Pakshaghata), and even death. In modern times, with increasing vehicular accidents and a fast-paced lifestyle, understanding the anatomy and physiology of Marmas holds great importance. Study of Lohitaksha Marma provides insights into both its therapeutic and clinical relevance. Marma therapy not only aids in managing trauma but also plays a preventive role by unblocking and balancing energy flow. It remains an essential component of Ayurveda, helping to sustain health, vitality, and inner harmony through the deep connection of energy pathways within the human body.

Keywords: Lohitaksha Marma, Marma science, Ayurveda, neurovascular correlate, brachial plexus, femoral triangle, marma therapy, clinical anatomy, integrated medicine.

INTRODUCTION

The concept of Marma has its origins in the Vedic period. Although ancient in terms of its historical timeline, its principles remain highly relevant and applicable even in the modern era. concept of Marma has been acknowledged by Acharya Charaka, who primarily emphasized the Tri-Marma Sira (vein), Hridaya (heart), and Basti (bladder)[1]. However, it is Acharya Sushruta and Acharya Vagbhata who provided a detailed exposition of the Marma points in the Sharir Sthana of their respective texts. Although references to Marma are found in many classical Ayurvedic texts, the most comprehensive discussion is presented in the Sushruta Samhita. Acharya Sushruta elaborated on the precise anatomical locations of Marma points and their vital role in sustaining Prana (life)[2].

As Acharya Sushruta has stated that Marma points are defined as location where multiple tissue Mamsa (muscles), Sira (vessels), Snayu (ligaments), Asthi (bones) and Sandhi (joints). Among the 107 classical marmas in Ayurvedic schema[3]. Lohitaksha Marma is especially significant Situated near the femoral triangle in the lower limb (and analogous positions in the upper limb in some texts), its location places it in proximity to major neurovascular structures. Modern anatomical studies and cadaveric dissection research have begun to map the classical descriptions of Lohitaksha more precisely into contemporary human anatomy. Such research confirms that the danger attributed traditionally is consistent with the presence of vital vessels and nerves in that region. The applied anatomy of Lohitaksha Marma is crucial in surgery, trauma, and rehabilitation, yet gaps in classical and modern understanding highlight the need for integrated, evidence-based clinical applications.

Marma Classification

Table 1: Marma classification as per Regional Anatomy [4]

Region	No. of marma
a) Shakhagata Marma (Upper and Lower limbs)	11 × 4 = 44
b) Madhyamanga Marma (Trunk)	26 (12 in udaro uraso and 14 in prishtha)
c) urdhvaJatrugata Marma (Head and Neck)	37

Table 2: Marma classification (Parinamanusara) as per Effect

a) Sadyahapranahara Marma	19
b) Kalantara pranahara Marma	33
c) Vishalyaghna Marma	03
d) Vaikalyakara Marma	44
e) Rujakara Marma	08

Table 3: Marma classification as per structural wise (Rachananusara)[5]

Mamsa Marma	11
Sira Marma	41
Snayu Marma	27
Asthi Marma	08
Sandhi Marma	20
Dhamani Marma (as Aacharya Vagbhata)	09

Description of Lohitaksha Marma

The term lohitaksha means marma site looks like the eye of the blood (applied for blood vessels), lohitaksha also means vessels in the axis. [6]

Site	Upper limb and lower limb
Sankhyataha (Number)	4
Anatomical site	Situated just above the oorvi marma and below the vankashan sandhi
Pramanataha (Measurement)	½ anguli (0.96cm)
Rachanataha (Structural anatomy)	Sira marma
Parinamataha (Prognostic status)	Vaikalyakara Marma
Viddhalakshana (based on traumatic effect)	Paralysis due to blood loss
Regional anatomy	Axillary fossa in upper limb and femoral triangle in lower limb

Anatomical Co-Relation of Lohitaksha Marma

In classical texts, the Marma in the Urdhwa Shakha is located above Bahavi Marma and below Kaksha Sandhi, at the root of the Bahu. Anatomically, it corresponds to the region between the surgical neck of the humerus and shoulder joint, involving the axillary artery, vein, and brachial plexus[7].

Marmas are formed by congruence of 5 factors[8]. Those as per Lohitaksha Marmas are as follows

Mansa - Teres major, Latissimus dorsi, Biceps brachii, Pectoralis major and minor, Coracobrachialis.

Sira - 3rd part of Axillary artery, Anterior and Posterior Circumflex Humeral artery, Axillary vein, Brachial artery and its venae comitantes, Lymph glands

Snayu - Median and ulnar nerve, Radial nerve

Asthi- Humerus

Sandhi -Closer to Shoulder joint

In Adho Shakha, the Marma is located above Urvi Marma and below Vankshana Sandhi, at the root of the Uru. Anatomically, it corresponds to the region between the hip joint and femoral neck-shaft angle, where the femoral triangle lies, containing the femoral artery, vein, and nerve.[9]

Marmas are formed by congruence of 5 factors. Those as per Lohitaksha Marmas in lower limb are as follows.

Mansa - Pectineus, Adductor longus, Psoas major, Iliacus

Sira - Femoral artery and its branches

Snayu - Femoral nerve, nerve to the pectineus, femoral branch of genitofemoral nerve, lateral cutaneous nerve of thigh.

Asthi - Femur

Sandhi - Closer to hip joint.

Injury Effect (Viddha Lakshana)

Lohitaksha Marma is a vital point situated at the root of both arms and thighs. It is present in four places, one in each limb. When this point is injured (viddha), it leads to serious effects due to blood loss (lohitakshaya), causing paralysis (pakshaghat), deformity, or even death[10].

Viddha Lakshana (Signs of Injury) When the Lohitaksha Marma is injured:

It causes pakshaghata (paralysis) of the affected limb.

May result in shonitakshaya (blood loss) leading to death if severe. Sometimes it results in sakthisada (weakness or wasting of muscles in the limb).

Applied Significance

Surgical Importance: It is listed among the Avedhya Sira (veins not to be punctured), emphasizing the need for extreme care during surgical or therapeutic procedures like bloodletting or injections in these areas[11].

Traumatological Effect: Injury to this marma can result in Lohita Kshaya (severe blood loss), Pakshaghata (paralysis), or even Marana (death), due to its proximity to major vessels[12].

Clinical Relevance: As "Lohita" relates to blood, this marma is considered crucial for maintaining hemodynamic and neurological stability. It is involved in conditions affecting blood circulation, such as varicose veins and ischemic changes.

Therapeutic Application: Marma therapy involving gentle stimulation or massage with medicinal oils is used in Ayurveda to enhance blood flow, relieve pain, and promote healing of musculoskeletal and vascular conditions, though this should always be conducted by trained practitioners[13].

DISCUSSION

Lohitaksha Marma is one of the most clinically significant Sira Marmas described in Ayurveda, located at the root of the arm and thigh anatomically corresponding to the axillary fossa and femoral triangle. These regions contain major arteries, veins, and nerve plexuses, validating the classical description of this marma as "Lohitaksha," the *eye of blood*, reflecting its high vascularity and life-sustaining role. The marma's structural composition, involving mamsa, sira, snayu, asthi, and sandhi, aligns closely with the modern understanding of densely packed neurovascular and musculoskeletal structures, explaining why even minor trauma can result in severe functional impairment.

The Vaikalyakara classification of Lohitaksha Marma highlights that injury typically leads to deformity or disability rather than instant death. This corresponds with contemporary trauma patterns affecting the brachial plexus, femoral nerve, or major arteries, which often result in paralysis, motor weakness, sensory deficits, or life-threatening hemorrhage. Classical descriptions of pakshaghata (paralysis), shakti-sada (muscle weakness), and rakta-kshaya (blood loss) correlate closely with the consequences of neurovascular injury in these anatomical regions. Clinically, the marma has considerable relevance in surgery, orthopaedics, and emergency care. Both the axillary and femoral regions are prone to penetrating injuries, fractures, dislocations, and iatrogenic damage during procedures such as cannulation, regional nerve blocks, or catheterization. Ayurveda's identification of Lohitaksha as an Avedhya Sira demonstrates ancient surgical insight, warning against invasive manipulation of areas that may cause catastrophic bleeding or nerve damage—principles still upheld in modern clinical practice. Beyond trauma, Lohitaksha Marma holds therapeutic significance in marma therapy, where controlled stimulation is believed to enhance circulation, reduce pain, and promote neuromuscular balance. Modern integrative perspectives suggest that such interventions may assist lymphatic flow, myofascial release, and autonomic regulation, offering potential as an adjunct in rehabilitation for limb stiffness, nerve entrapment, or vascular insufficiency. Understanding the applied anatomy of this marma is increasingly relevant in physiotherapy and sports medicine. As gateways for neurovascular supply, the axillary and femoral regions influence limb strength, mobility, and proprioception. Knowledge of marma principles can help guide targeted rehabilitation strategies and reduce injury risk. Although classical Ayurvedic literature provides a detailed conceptual framework, further scientific validation is needed. Emerging anatomical studies demonstrate close correlation between marma points and high-density anatomical zones, yet systematic research on physiological responses to marma stimulation and therapeutic outcomes remain limited. Interdisciplinary collaboration integrating Ayurveda with modern anatomy, imaging, and clinical trials may strengthen evidence-based applications and expand the role of marma science in contemporary healthcare.

CONCLUSION

The Lohitakṣha Marma is a vital anatomical-energetic point in Ayurvedic anatomy, located in the region of the root of the thigh (lower limb) and analogously in the axillary/upper limb region. Its significance lies chiefly in risk (hemorrhage, paralysis, death) when injury occurs hence its classification as Vaikalyakara and Sira marma. For applied practice: Surgeons, therapists should be aware of this region's vulnerability both to avoid inadvertent harm and to respect its classical caution. Anatomical correlation is essential modern anatomy that confirms major vessels/nerves pass through the region, giving scientific plausibility to classical warnings. The applied significance is therefore dual protective (avoid injury) and potential therapeutic (in the broader marma therapy paradigm) though the primary emphasis historically has been on protection because of the severity of injury consequences. In terms of research and future directions more clinical studies focusing on this marma's therapeutic stimulation (if any) are needed also imaging/dissection studies to refine localization for varied body types.

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