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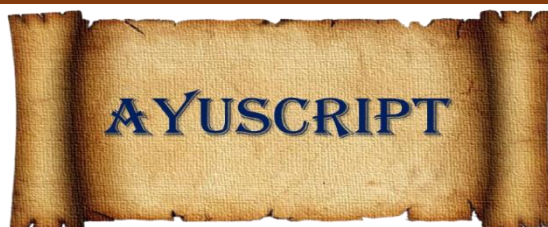
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यन्कल्पेन शरीरं समकल्पयन् ॥१॥ विश्वकर्मोणमाहूय पुरीहाटकानि
 र्मेना ॥ तत्र खोडशसहस्रस्त्रीणामेव च वराधिकम् ॥११॥ भवभानिसनो ज्ञानि
 यो मध्ये च कल्पयन् ॥ परिज्ञानतर्कवेचनासामो गायकल्पयन् ॥१२॥ या
 यानो गृह्णास्तत्र यद्दुपेचाशतकोटयः ॥ अन्यपि बहुवैश्याकावसंनिधिगत
 राः ॥१३॥ यन्निर्विद्युत्सुक्तैश्च सुन्दरैश्च दृश्यते ॥ सवाङ्मिन्प्रसूनास्यो पु
 त्रयुयस्य विद्युते ॥१४॥ यथापि नीरमासाद्य तन्मनस्कतया च सः ॥ सनाजि
 स्तपस्तेपस्स्य मुदिष्ण बुद्धिमाच ॥१५॥ धनैरिष्यने म्मस्यै सवदुक्ता व
 नः ॥ प्रसन्नो भयवाच्यनोजितपुरिष्णना ॥१६॥ सनाजिनोपि तु ह्यावदृष्टा देवैर्द
 ाकरय ॥ निजोराशनमस्तु नमस्तु सर्वतो मुखः ॥१७॥ विश्वव्यापिन्नमस्तु
 मस्तु निष्पत्तयि ॥ कल्पयेन्नमस्तु हरिद्वयनमस्तु ॥१८॥ गृह्णाजन्म
 तस्तु नमस्तु चंद्रो जियो ॥ वेदत्रयनमस्तु सर्वदेवनमस्तु ॥१९॥ प्रसीद
 त्स्वित्वा सुदृष्टीमां दिवा करी ॥ २०॥ यैस्सकथमानो लोदेवदेवो दिवा करी ॥२
 १॥ यथाभीरुभर्षस्य कल्पितभवा ॥ २२॥ अरिर्वादिष्यन्नासि यमिभ ॥ २३॥





International Journal for Empirical Research in Ayurveda

Concept of Atyayika Chikitsa (Emergency Medicine) in Ayurveda: Rachana Sharira (Anatomical) prospectives with Special Reference to Trimarma Kendale S.¹, Kandekar S.²

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ABSTRACT:

Background: The Ayurvedic concept of Atyayika Chikitsa (emergency management) is fundamentally based on the preservation of vital anatomical structures described under Marma Sharira. Among 107 Marmas, three—Sira (head), Hṛdaya (heart), and Basti (urinary bladder)—are designated as Trimarma and classified as Sadyapranahara Marma, whose injury results in immediate fatality.

Objective: To analyze Atyayika Chikitsa from a Rachana Sharira (anatomical) perspective and correlate Trimarma with modern emergency anatomy.

Materials and Methods: Classical references from Charaka Samhita, Sushruta Samhita, and Ashtanga Hridaya were critically analyzed along with commentaries of Chakrapānidatta, Dalhana, and Arunadatta. Modern anatomical interpretation was established using Gray's Anatomy and contemporary trauma science literature.

Results: Trimarma corresponds anatomically to the central nervous system, cardiovascular system, and pelvic neurovascular-visceral complex. Injury to these regions produces catastrophic physiological collapse analogous to modern emergency priorities.

Conclusion: Atyayika Chikitsa represents an anatomically structured emergency doctrine in Ayurveda. Trimarma preservation parallels modern trauma life-support principles.

Key words:

Atyayika Chikitsa, Trimarma, Marma Sharira, Emergency Medicine, Rachana Sharira

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Introduction:

Emergency management in Ayurveda is termed *Atyayika Chikitsa*, referring to conditions that threaten life imminently. The urgency of intervention is emphasized in *Charaka Samhita*:

(Sutrasthana 9/8)

In emergency situations, treatment must be administered without delay.

This statement reflects the principle of rapid intervention, comparable to the modern “golden hour” concept in trauma care. Ayurveda conceptualizes life as dependent upon structural integrity of specific anatomical centers termed *Marma*.

Sushruta Samhita defines:

Marmas are anatomical confluences of muscle, vessels, ligaments, bones, and joints. *Dalhana* explains that these are *Prāṇāyatana* (seats of life) because they house vital physiological functions.

Among 107 marmas, three are supreme:

(Sharirsthana 6/26)

Thus, the doctrine of *Trimarma* forms the anatomical core of Ayurvedic emergency science.

Materials And Methods

A classical literary review was conducted using primary Ayurvedic texts:

Charaka Samhita

Sushruta Samhita

Ashtanga Hridaya

Commentaries of *Chakrapanidatta*, *Dalhana*, and *Arunadatta* were analyzed for anatomical interpretations.

Modern anatomical comparison was performed using:

Gray's Anatomy

Standard clinical anatomy and trauma literature.

1. Sira Marma – Cranial Neuroanatomical Center

Sira (head) is described as the supreme anatomical seat of *Prāṇa*.

(*Charaka Samhita*, Sutrasthana 17/12)

(*Ashtanga Hridaya*, Sharirsthana 4/37)

These verses indicate that all sensory and motor functions originate from *Śira*. *Chakrapāṇi* clarifies that it is *Indriya-*

Pradhāna (dominant sensory control center).

Modern Dissection Correlation

According to *Gray's Anatomy*:

Cerebral cortex governs cognition and voluntary movement. Brainstem regulates respiration and cardiac rhythm. Cranial cavity forms a rigid protective vault. On dissection, the skull encloses meninges, cerebral hemispheres, cerebellum, and brainstem. Any trauma increases intracranial pressure due to fixed cranial volume, leading to herniation and brainstem compression.

Emergency Implication

Head injury results in:

Raised intracranial pressure

Respiratory arrest

Loss of consciousness

Neurogenic shock

Thus, *Sira Marma* represents central nervous system emergency priority.

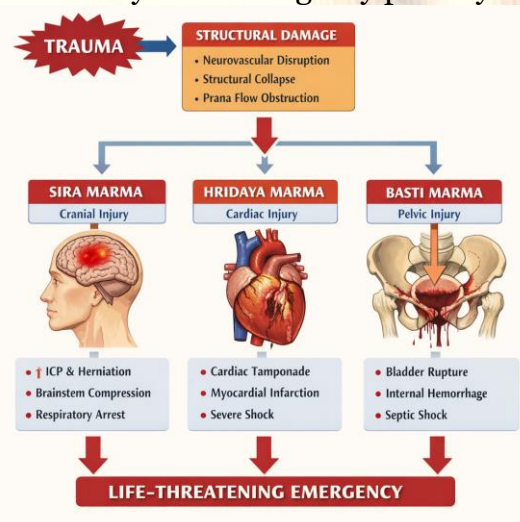


Image 1

2. Hridaya Marma – Cardiovascular Structural Core

Hridaya is identified as the seat of consciousness and vitality.

(*Charaka Samhita*, Sutrasthana 30/7)

(*Sushruta Samhita*, Sharirsthana 4/31)

Dalhana interprets *Hridaya* as the regulator of *Raktapravāha* (circulation). *Arunadatta* associates it with *Ojas*, the essence of vitality.

Modern Dissection Correlation

Dissection reveals:

Four cardiac chambers
 Coronary arteries
 Pericardial sac
 Electrical conduction system
 Gray's Anatomy describes the heart as a muscular pump maintaining systemic and pulmonary circulation.
 Emergency Implication

Cardiac trauma causes:

- Cardiac tamponade
- Massive hemorrhage
- Cardiogenic shock
- Sudden death

Hence, Hṛdaya Marma aligns with circulatory collapse in modern emergency protocols.

3. Basti Marma – Pelvic Neurovascular Complex

Basti is described as fundamental to bodily stability.

(Sushruta Samhita, Sharirsthana 6/27)

Dalhana notes its role in urinary elimination and Vāta regulation. Apāna Vāyu governs excretion and reproductive function.

Modern Dissection Correlation

Dissection of the lesser pelvis reveals:

- Urinary bladder
- Pelvic venous plexus
- Internal iliac vessels
- Autonomic nerve plexus

According to Gray's Anatomy, the bladder lies posterior to pubic symphysis and is richly vascularized.

Emergency Implication

Pelvic trauma leads to:

- Bladder rupture
- Severe hemorrhage
- Septic shock
- Multi-organ failure

Thus, Basti Marma corresponds to pelvic trauma emergencies in modern surgery.

Discussion:

The concept of Atyayika Chikitsa in Ayurveda represents a highly structured and anatomically grounded emergency doctrine rather than a purely symptomatic or pharmacological approach. Classical Ayurvedic literature emphasizes that preservation of life depends upon the

integrity of specific anatomical centers described as Marma. Among these, the doctrine of Trimarma—Śira, Hṛdaya, and Basti—occupies a supreme position. The classification of these structures as Sadyapraṇahara Marma (instantly fatal vital points) reflects an advanced understanding of anatomical vulnerability and systemic collapse.

In Sushruta Samhita (Sharirsthana 6/26), Trimarma are described as the most critical among all Marmas. Dalhana, in his Nibandha Sangraha commentary, clarifies that these are termed Prāṇāyatana because they sustain life by housing vital physiological functions. From a structural perspective, Marmas are defined as anatomical junctions of Māmsa (muscle), Śirā (vessels), Snāyu (ligaments), Asthi (bones), and Sandhi (joints) (Sharirsthana 6/3). This definition indicates a composite neurovascular structural unit, suggesting that injury results in complex systemic disruption rather than localized damage.

The first of Trimarma, Sira (head), is described in Charaka Samhita (Sutrasthana 17/12) as the seat of Prana, while Ashtanga Hridaya (Sharirsthana 4/37) states that all sensory and motor faculties are established in the head. Chakrapanidatta interprets this as Indriya-Pradhanatva—functional supremacy of sensory integration. Modern neuroanatomy, as described in Gray's Anatomy, recognizes the brain as the central regulator of respiration, cardiovascular control, and consciousness. The rigid cranial vault limits expansion during hemorrhage or edema, leading to raised intracranial pressure and herniation syndromes. Thus, the Ayurvedic classification of Śira as Sadyapraṇahara corresponds precisely with contemporary understanding of traumatic brain injury and its immediate fatal potential.

The second Trimarma, Hṛdaya (heart), is described in Charaka (Sutrasthana 30/7) as the seat of consciousness (Cetanasthama). Sushruta Samhita (Sharirsthana 4/31) states that Prana

resides in the heart. Dalhana elaborates that Hrdaya regulates Raktapravaha (blood circulation), while Arunadatta associates it with Ojas, the essence of vitality. Modern anatomy defines the heart as a four-chambered muscular pump maintaining systemic perfusion and oxygen delivery. According to Gray's Anatomy (41st ed., Thorax section), interruption of cardiac output results in rapid cerebral hypoxia and death within minutes. Conditions such as cardiac tamponade, myocardial infarction, and massive hemorrhage represent modern equivalents of Hrdaya Marma injury. Therefore, the Ayurvedic identification of the heart as an immediate life-sustaining organ parallels modern emergency cardiology and trauma science.

The third Trimarma, Basti (urinary bladder and pelvic complex), is often underappreciated but holds critical importance. Sushruta (Sharirsthana 6/27) describes Basti as the root of the body (Bastimulam sarirasya). Dalhana interprets this structurally, noting its role in urinary elimination and Vata regulation, particularly Apana Vayu. From a modern anatomical standpoint, the urinary bladder is located in the lesser pelvis, surrounded by a dense venous plexus and closely related to the internal iliac vessels and autonomic nerve plexuses. Pelvic fractures can cause life-threatening hemorrhage due to disruption of these vascular networks. Gray's Anatomy (Pelvis section) emphasizes that pelvic trauma is a major cause of hemorrhagic shock in emergency medicine. This correlates strongly with the Ayurvedic classification of Basti as Sadyapranahara, demonstrating recognition of pelvic vascular vulnerability centuries before modern trauma surgery. Collectively, the Trimarma doctrine aligns remarkably with modern emergency medicine—Airway and brain protection (sira), Breathing and circulation maintenance (Hrdaya), and control of catastrophic hemorrhage (Basti). The structural basis of Atyayika Chikitsa

indicates that ancient Ayurvedic scholars possessed a systematized anatomical understanding of life-threatening injuries. Rather than focusing solely on symptoms, the approach prioritizes preservation of vital anatomical hubs, reflecting a proto-emergency medical model grounded in Rachana Sharira.

Thus, Trimarma represents not merely philosophical constructs but anatomically verifiable life-sustaining centers whose injury results in predictable physiological collapse. This conceptual alignment reinforces the scientific relevance of Ayurvedic emergency doctrine within the framework of contemporary anatomical and trauma sciences.

Conclusion:

The present study emphasizes that the Ayurvedic concept of Atyayika Chikitsa represents a structured and anatomically oriented approach to the management of life-threatening conditions. Classical Ayurvedic scholars recognized that the preservation of life depends upon the integrity of certain vital anatomical structures termed Marma, which function as critical points where multiple structural components such as muscle, vessels, ligaments, bones, and joints converge. Among the 107 Marmas described in the classical texts, the doctrine of Trimarma Sira (head), Hrdaya (heart), and Basti (urinary bladder) occupies a position of supreme importance because these structures are categorized as Sadyapranahara Marma, indicating that their injury can result in immediate or rapidly fatal consequences.

Analysis of classical references from the Sushruta Samhita, Charaka Samhita, and Ashtanga Hridaya demonstrates that these organs were regarded as Pranayatana, the principal seats of vital physiological activity. Sira is identified as the center governing sensory perception, cognition, and neurological regulation, while Hrdaya is recognized as the seat of consciousness and circulatory function. Similarly, Basti is considered fundamental to bodily

equilibrium through its role in excretory and pelvic physiological processes. When interpreted through modern anatomical understanding, these three structures correspond closely with the central nervous system, cardiovascular system, and pelvic visceral–vascular complex respectively.

Modern anatomical and clinical descriptions, as presented in Gray's Anatomy and other contemporary medical literature, confirm that severe trauma to the brain, heart, or pelvic vascular structures can rapidly lead to systemic collapse, hemorrhagic shock, or irreversible organ failure. This striking correlation highlights the profound observational insight of ancient Ayurvedic scholars. Therefore, the Trimarma doctrine can be understood as an early conceptual framework for emergency medicine that emphasizes protection of vital anatomical centers. From a Rachana Sharira perspective, Atyayika Chikitsa fundamentally represents the preservation of these life-sustaining structures, thereby demonstrating the enduring scientific relevance of Ayurvedic anatomical knowledge in understanding critical medical conditions.

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