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REVIEW ARTICLE

Literary Review of *Marma* Involved in Sound Production with Ayurvedic Insight

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ABSTRACT

The concept of *marma* in Ayurveda represents vital points where anatomical structures and *prāṇa* (vital force) converge. Classical texts like *Suśruta Saṁhitā* and *Aṣṭāṅgahṛdaya* emphasize the importance of marmas in health, surgery, and prognosis. While these texts do not explicitly describe marma as centers of sound production, several marmas in the head and neck region are directly associated with *vāk* (speech) and *svara* (voice).

This review examines classical Sanskrit ślokas, Ayurvedic commentary, and modern literature to elucidate the role of marmas in phonation and sound modulation. By bridging ancient wisdom with contemporary physiology, this review highlights both gaps and potential integrative pathways for future research.

Key Words *Nila, Manya, Mātṛkā Kanthnadi, Phonation, Resonance*

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INTRODUCTION

Ayurveda is an ancient Indian system of medicine that integrates anatomy, physiology, pharmacology, surgery, and spiritual sciences. Marmas (*marmasthāna*) are described as sites where various tissues — *māṃsa* (muscle), *sira* (vessels), *snāyu* (ligaments), *asthi* (bone), and *sandhi* (joints) — meet and where *prāṇa* resides. Classical practitioners regarded these points as sensitive yet therapeutically potent when properly stimulated. According to modern reviews, marmas serve as vital zones for physical and energetic balance. The fundamental texts detail their number, classifications, and prognostic importance.

Sound production —a complex interplay between respiration, neural control, vocal fold vibration, and resonance is essential not only for human communication but also for psychosocial well-being.

In classical Ayurveda, although there's no dedicated section on vocalization, Marmas in the jatrurdhva (above the shoulders) region—especially those connected to throat vessels and nerves—are implicitly linked to voice and speech outcomes when injured. While Ayurveda primarily discusses marmas in surgical and therapeutic contexts, specific marmas in the head and neck are clinically linked with functions

REVIEW ARTICLE

integral to voice and speech (*vāk*), such as articulation, resonance, and respiration.

This paper posits that specific marma regions, particularly those anatomically associated with head, neck, and thoracic structures, may influence vocal function. A literary review is therefore conducted to examine the intersection between marma theory and sound physiology.

LITERARY RIVIEW

Conceptual Framework of Marma in Ayurveda

Definition and Nature of Marma

"मांस-सिर-स्नायु-अस्थि-संधीनाम् संघातः मर्म" (Su. Śārīrasthāna 6/15)

According to *Sushruta Samhita*, marma points are anatomical conglomerations where essential tissues meet: *mamsa (muscle)*, *sira (vessels)*, *snayu (ligaments)*, *asthi (bone)*, and *sandhi (joint)*. These sites house *Prana*, making them sensitive and vital for life functions.

- This śloka describes marmas as junctions of multiple tissue types where vital life force (*prāṇa*) is concentrated. Injury to these points can lead to pain, dysfunction, or even death, depending on the marma involved.
- Charaka acknowledges the life-bearing nature of marmas, describing them as regions associated with intense pain due to the presence of *chetana* (consciousness or life force).
- Ashtanga Hridaya corroborates the descriptions with slight variations but reinforces the anatomical and clinical importance of marma.

❖ *Speech originates from Prāṇa, so marma are indirectly responsible for sound formation.*

Classification of Marmas

Suśruta enumerates 107 primary marmas based on anatomical location, tissue constitution, and prognosis after injury. These include regions of the limbs, trunk, head, and neck, with a high concentration in the latter, reflecting the intricate neurovascular architecture crucial for vital functions.

- Marmas Relevant to Sound and Speech

Sound generation involves the larynx (voice box), lungs, diaphragm, and neural control centers

Although the classical texts do not use the modern term "sound production," they document marmas whose injury leads to speech loss (*mūkatva*), voice alteration (*svarabheda*), and prāṇahara (loss of life)—all of which imply involvement in phonation, resonance, and respiratory control.

Śṛṅgāṭaka Marma

"नासाक्षिकर्णजिह्वानां सन्धिः शृङ्गाटकं स्मृतम् । तत्राभिघातात्सद्यः प्राणो नश्यति मानवः ॥" (Su. Śārīrasthāna 6/27)

This śloka indicates that the Śṛṅgāṭaka marma is located at the anatomical intersection involving the nose (*nāsa*), eye (*akṣi*), ear (*karṇa*), and tongue (*jihvā*). Trauma here results in immediate loss of life, reinforcing its role in essential functions, including respiration and articulation.

In ashtang samgrah and ashtang hridya , this marma is situated in Talu Pradesh (palate region)

Commentary

REVIEW ARTICLE

The inclusion of the tongue and nasal structures suggests involvement in articulation and resonance, key components of voice production.

Nīlā Marma

"नीले तु विद्धे मूको भवति मानवः।" (Su. Śārīrasthāna 6/24)

This verse clearly associates the injury of the Nīlā marma with becoming speechless (*mūko*), identifying it as a site critical for *vāk* production.

Manyā Marma

"मन्ययोर्विद्धयोर्मूकत्वं स्वरभेदश्च जायते।" (Su. Śārīrasthāna 6/23)

This śloka implicates the Manyā marma in both loss of speech (*mūkatva*) and alteration of voice (*svarabheda*), suggesting a modulation function in the phonatory apparatus.

Commentary

The proximity of this marma to cervical musculature and neurovascular structures involved in phonation points toward its relevance in maintaining normal voice quality.

Mātṛkā Marma

"मातृकाः प्राणसंश्रिताः।" (Su. Śārīrasthāna 6/22)

This verse underscores that the Mātṛkā marmas are repositories of prāṇa, inferring importance for systemic life functions including breathing and voice production.

Commentary

They provide the vascular and nervous nourishment to the larynx (*Kantha*).

- Functional Correlates of Marmas in Speech Physiology

Udāna Vāyu – Controller of Speech

ऊर्ध्वं नयति यः प्राणानुदानो नाम मारुतः।

वाक्प्रवृत्तिप्रबोधनः स्वरवर्णबलप्रदः॥ (Ash. Hy Sutrasthāna 12/5)

Udāna Vāyu moves Prāṇa upward and is responsible for speech, voice, strength and clarity.

→Udāna flows through Kantha Marma region (larynx).

Throat as the Seat of Voice

कण्ठे स्वरस्थानं प्रोक्तं प्राणवायुप्रचोदितम्। (Su. Śārīrasthāna 6/28)

The throat (Kaṇṭha) is described as the seat of voice, activated by Prāṇa Vāyu.

→ Kantha Marma is a vital point for phonation.

Upward Movement of Prāṇa Produces Speech

नाभिस्थो वायुरुद्गच्छन् कण्ठं प्राप्य स्वरं जनयेत्। (Cha. Śārīrasthāna 1/65) 1/65

Vāyu arising from the navel, reaching the throat, produces sound (Svara).

→ This shows the Prāṇa–Udāna–Kantha Marma pathway.

Injury to Head–Neck Marma Causes Speech Loss

शिरोमर्माभिघातेन मूर्च्छा वाक्सङ्ग्रहः भवेत्। (Cha. Sidhisthāna 9)

Injury to head marma leads to loss of speech and consciousness.

→ Proves marma involvement in speech centers

Ayurveda views the generation of speech as a coordinated activity involving udan vayu, prāṇa vayu, voice apparatus (larynx, tongue, soft palate) and resonance chambers (nose, oral cavity, throat). The marmas discussed above are situated near structures that, in contemporary

REVIEW ARTICLE

terms, participate in motor and sensory control of speech and breathing.

Sound generation involves the larynx (voice box), lungs, diaphragm, and neural control centers.

Key marma points relevant to this system include:

Kantha Marma (neck region) and sirha marma: correlates closely with the larynx, palate and thyroid region.

Although Ayurvedic literature does not directly map marma to vocal tract physiology, the ontological premise that marma governs vital life forces suggests potential influence on functions such as respiration and vocalization.

Modern Interpretations and Correlations

Contemporary research in somatic therapy and Ayurveda suggests that marma points may overlap with neural plexuses and acupressure points recognized in other traditions. For example: Stimulation of the neck region marma could affect the vagus nerve and laryngeal nerves — critical in phonation and respiratory control.

Points on the head could influence the brainstem and auditory centers, indirectly affecting sound perception and production.Some practitioners hypothesize that marma therapy can harmonize breath and nervous system balance, thereby improving vocal quality, endurance, and expression — a hypothesis that requires empirical validation.

The direct link between marma injury and speech loss or voice alteration in classical texts demonstrates a functional correlation between these vital points and sound production. This supports a hypothesis that marmas in the head and neck region are crucial in phonation, even though classical literature does not explicitly discuss acoustics or sound waves.

DISCUSSION

Textual Limitations and Interpretive Considerations

Classical Ayurvedic texts emphasize prognosis and therapeutic caution regarding marmas rather than providing explicit mechanisms of sound production. The ślokas cited show that marmas like Nīlā, Manyā, and Śṛṅgāṭaka, Mātṛkā are vital to the regions involved in speech. However, Ayurvedic śāstras do not describe acoustic properties or neurological mechanisms as understood by modern physiology. Instead, the link is inferred from clinical outcomes documented when these points are injured.

Modern reviews describe marmas as prāṇic control points and correlate them with nadis and subtle energy flows, hinting at deeper physiological and psychosomatic integration.

Physiological Basis of Sound Production

Human sound production emerges from airflow from lungs, modulation by the vocal folds, and resonance within the pharynx and oral cavity. Neural control integrates sensory feedback with motor commands. Disruptions in any component — whether structural (e.g., vocal fold pathology)

REVIEW ARTICLE

or functional (e.g., nervous imbalance) — can affect voice quality.

Marma's Role in Sound Modulation

From an Ayurvedic perspective:

Prana movement through marma networks corresponds to nervous and circulatory integration in modern medicine.

Breath regulation (Pranayama) is a major focus of Ayurvedic and Yogic practices for improving voice — suggesting that vital energy flow influences both respiratory and phonatory systems.

Marma therapy's emphasis on gentle stimulation may support relaxation of laryngeal musculature, reduction of sympathetic tension, and enhancement of parasympathetic modulation — all conducive to healthier sound production.

Integrative Perspectives

Although direct empirical evidence linking specific marma points to improved vocal outcomes is limited, theoretical convergence exists

Neurophysiological Mechanisms:

Marma stimulation may activate neural circuits modulating respiratory rhythm and laryngeal muscles.

Psychophysiological Harmony:

Ayurveda views voice not just as a physical phenomenon but as an expression of internal balance — a notion increasingly supported by research on the effect of mind–body interventions on vocal performance.

Scope for Future Research

Rigorous cross-disciplinary research integrating Ayurvedic marma theory with speech science, neuroanatomy, and biomechanics could deepen understanding of how marma stimulation affects voice, breathing, and neuromuscular coordination. Empirical studies examining changes in voice parameters following marma therapy could provide evidence-based insights.

CONCLUSION

The Ayurvedic concept of marma offers a rich, albeit underexplored, framework for examining sound production. Although classical texts do not explicitly describe marma points for voice generation, the anatomical and energetic correlations suggest that marma therapy could influence vocal physiology through neural modulation, breath enhancement, and psychosomatic balance. The direct association of specific marmas with loss or alteration of speech and voice establishes a functional link. Marmas such as Nīlā, Manyā, Śṛṅgāṭaka, and Mātṛkā are especially relevant to speech and voice pathways, reflecting prāṇa's role in vital functions. A holistic understanding that bridges ancient textual wisdom with modern scientific inquiry will enrich both Ayurvedic scholarship and integrative health sciences. Bridging traditional Ayurvedic insights with contemporary research holds promise for therapeutic approaches in voice care.

REVIEW ARTICLE

REFERENCES

1. Agniveśa, *Charaka Samhitā*, revised by Charaka and redacted by Dṛḍhabala, with Āyurveda Dīpikā commentary of Chakrapāṇidatta, edited by Vaidya Jādavaji Trikamji Acharya, Chaukhambha Surbharati Prakashan, Varanasi, Reprint Edition, *Śārīra Sthāna* and *Cikitsā Sthāna*, relevant chapters and verses.

2. Suśruta, *Suśruta Samhitā*, with Nibandha Saṅgraha commentary of Dalhaṇa, edited by Vaidya Jādavaji Trikamji Acharya, Chaukhambha Orientalia, Varanasi, Reprint Edition, *Śārīra Sthāna*, Chapter 6 (Marma Śārīra), relevant verses.

3. Vāgbhaṭa, *Aṣṭāṅga Hṛdaya*, with Sarvāṅga Sundarā commentary of Arunadatta and Āyurveda Rasāyana commentary of Hemādri, edited by Pandit Hari Sadashiva Shastri Paradakara, Chaukhambha Surbharati Prakashan, Varanasi, Reprint Edition, *Śārīra Sthāna* and *Sūtra Sthāna*, relevant references.

4. Sharma, R.K. & Dash, B., *Charaka Samhita (English Translation and Commentary)*, Chaukhambha Sanskrit Series Office, Varanasi, Reprint Edition, Volumes I–III, relevant sections on *Prāṇa*, *Vāta*, and speech physiology.

5. Goyal, M., *Concept of Marma in Ayurveda*, Chaukhambha Orientalia, Varanasi, First Edition, Chapters related to *Marma Vijnana* and clinical significance.

6. Guyton, A.C. & Hall, J.E., *Textbook of Medical Physiology*, Elsevier, 13th Edition, Philadelphia, Chapters on phonation, laryngeal function, and speech mechanism (for anatomical and physiological correlation).

7. Vāgbhaṭa, *Aṣṭāṅga samgrah, by* Kavira Atridev gupta, Krisnadas Academy Varanasi, *Śārīra Sthāna*, Chapter 7 (Marma Śārīra), relevant verses.

8. NCISM, *Minimum Standards Requirements for Undergraduate and Postgraduate Ayurveda Education*, National Commission for Indian System of Medicine, New Delhi, Latest Edition (for academic and research formatting compliance).