AN ANATOMICAL ASSOCIATION OF ARDITA ROGA IN RELATION TO VATAVYADHI AS PER CLASSICAL LITERATURE

Sumit Sharma¹, Sakshi², Subhash Upadhyay³

¹PG Scholar, ²Assistant Professor, ³Professor & HOD, Department of Rachna Sharir, SGCA&H, Tantia University, Sriganganagar, Rajasthan, India

Email: drsumit.mh@gmail.com

ABSTRACT
In Ayurvedic science, the Tridosha theory is the foundation root & cause for everything happening in the body and universe. Vata is one of the important Dosha, which is prime driving force for other two Doshas (Pitta & Kapha), Dhatus (body tissues) and Malas (excreta) from one site to the other. Vatavyadhi are included under the Mahagadas (an extreme disease) as they have complicated conglomeration of signs and symptoms. In the normal state it controls the mind and body activities but on affliction it happens to be the worst cause for bodily damage and occurrence of diseases. It becomes morbid (factor for diseases) due to its vitiation due to external and internal environmental factors. This work is a review on Ardita Roga from classical literature along with the modern science pathogenesis. A relation between the Lakshanas and the pathogenesis with sign-symptom is compiled.

Keywords: Ardita, Vatavyadhi, Neurons, Paralysis, Vakrata, Cranial nerves

INTRODUCTION
Vata is the main element of the body which helps in controlling, maintaining, formation for various bodily activities and compounds. Many Acharyas have given the references for Vatavyadhi in their Samhitas which can be compared on the anatomical aspect for the betterment of understanding the classical text. The word Vatavyadhi itself indicates the meaning of diseases caused due to Vata and term Vyadhi is (condition where the affliction occurs in localized or generalized form)(1). Each disease has an anatomical –physiological aspect where the anatomical changes affect the morphology of the structure and altered physiology is the cause for the pathogenesis. The word meaning of Ardita is “the condition caused due to unusual Vata vitiation, which turns face in an opposite direction. (2) The word Ardita come along with other word meaning like injured, affliction and spasms for facial region(3). The text from the Brihattyrees (Sushruta Samhita, Charaka Samhita & Asthanga) has demonstrated the concept of VataVyadhi with many diseases highlighted by means of their signs-symptoms. This works is confined to the correlation of Ardita Roga with the facial nerve affliction.

IN Ayurvedic LITERATURE:
The chapter titled “Vatavyadhi” comprises of several diseases like Gritharsi (sciatica), Vatakantaka, Urusthambha, Dandaka, Ardita (facial palsy),
Hanusthambha (temporo-mandibular affliction), Dhamuskampa (convulsions), Bhadirya (deafness) etc. & here Ardita is described. The disease is related to Mukhasamkocha (constriction of facial muscles), Vakrata (deviation) of facial parts like nose, eyes, eyebrows etc.

In Charaka Samhita, the chapter titled “Vata Vyadhi” Acharya has mentioned Ardita Roga. The provoked Vata affects one side of body, it dries up blood, hand, leg, and knee and there is contraction of the side. Along with this, eye, nose, eyebrows, jaws gets crooked. Thus, the opening of the mouth goes in crooked manner, difficulty in having food, tongue becomes curved when raised, nose gets deviated, and hearing and speech is affected. The vitiated Vata affects half side of the body/ face and recognizable features (mostly on facial region) are observed externally on the patients. The disease is diagnosed with the one-sided or half side of the body. Similarly, in Sushruta Samhita and Ashtang Sangrah, VataVyadhi Nidanam describes the factors for afflicted Vata and comparable signs – symptoms. Acharya Sushruta has mentioned the causes for manifestation of disease like due to Raktashyaya (lack of blood), Bharavahna (heavy objects over head) afflicts Vata. In Ashtang Hridaya, they have used the term ‘Ekayama’ (related to one sided affliction). According to Bhavmishra & Yogratnakar, there are 3 types of Ardita based upon the Doshas.

- **Vata Ardita**: excessive salivation, pain, lock jaw, edema over lips
- **Pitta Ardita**: thirst, yellowish color of face, Daha, Jwara (fever)
- **Kapha Ardita**: edema & stiffness in neck

**IN MODERN SCIENCE:**
The facial nerve emerges from base of skull at stylo-mastoid foramen. It gains access to face while passing from the parotid gland. Near this foramen the nerve gives a posterior auricular nerve and within the substance of gland it divides into temporo-facial and cervico-facial trunks. The trunk further forms a plexuses and gives five branches.

- Temporal branch
- Zygomatic branch
- Buccal branch
- Mandibular branch
- Cervical branch

**Figure 1.1:** The Course & Branches of Facial Nerve
It is the most frequently paralyzed cranial nerve. Depending on location of lesion different symptoms occur. A lesion of CN VII near its origin, or geniculate ganglion will accompanied by loss of motor, gustatory (taste) and autonomic functions.

The facial nerve is a mixed type of nerve and its innervations are as follows enlisted in the table.

<table>
<thead>
<tr>
<th><strong>Table 1.1:</strong> Enlisting the Facial Nerve Innervation</th>
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<tbody>
<tr>
<td>Sensory Root</td>
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<tr>
<td>Innervation for taste sensation</td>
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**DISCUSSION & CONCLUSION**
From the above textual matter from Ayurvedic science it is clear that Vata Dosha is prime cause for such Lakshanas. The weight bearing over head region, screaming, constant yawning, day sleep, hit by external stimuli, suppression of natural urges (sneez-
ing, lacrimation, yawning) etc. produces such symp-
toms in Ardita, Shirasoola (pain), Murdhakampa
(tremors), netrasabdta (stiff eye movements),
Akshishoola (pain around eye region), Ashrasrava
(lacrimation), Nasavakrta (nasal deviation), Gandha
agyana (loss of smell), Mukha-Jiwhavakrata (devi-
ated mouth and tongue)\(^{(12)}\). So, the Samprapti
(patho-
genesis) indicates that these factors aggravate the
Vata and it gets occluded in the nearby vessels &
nerves situated in the region and turns it one side\(^{(13)}\).
The correlation between the two sciences is similar
easily in concept and to understand classical views
we need modern parameters. There is group of com-
parable symptoms like tremors in head-face, devia-
tion, lacrimation, and eyelids drooping on affected
side, loss of smell, taste, and inability to speak. Faci-
al nerve paralysis may be due to an upper motor neu-
ron lesion, or a lower motor neuron lesion. Bell’s
palsy and acoustic neuromas can produce a complete
lower motor neuron facial paralysis\(^{(14)}\). The in-
volve ment of different cranial nerves as facial nerve,
auditory, glossopharyngeal optic, oculomotor, fibres
of trigeminal and vagus nerves lead to these presen-
tations of signs-symptoms.

The modern anatomical facts reveal that, the facial
nerve paralysis may be supra nuclear or infra nuclear
one. The nerve fibres consist of 2 motor nuclei. The
dorsal division is the one which contains UMN’s
(upper motor neuron) which receives bilateral input
from brain\(^{(15)}\). The ventral division contains LMN’s
(lower motor neuron) which receives only contra-
lateral inputs. The supra nuclear facial paralysis in-
volves the UMN pathway & usually part of hemi-
plegia. The infra nuclear one is related with point
where the nerve can be injured (site of lesion)\(^{(16)}\).

- Lesion in Pons: Damage to many other nuclei
  (Abduccens, spinal trigeminal, sensory)
- Lesion in Internal Acoustic Meatus: Loss of
taste, deafness, facial paralysis
- Lesion in Facial Canal: Results in sensitivity to
one ear (hyperacusis)
- Lesion Petrous Bone: Chorda tympani is in-

It is caused due to inflammation of the facial nerve
near the stylomastoid foramen or due to compression
of the fibers. Thus, the nerve must be protected from
the harsh external environmental source to prevent
from such conditions. Here it can be concluded that
Vata must be controlled by introducing changes in
dietary habits &lifestyle pattern, so that its affliction
can be prevented. Different types of treatment is
available in Ayurveda for Ardita or Facial Paralysis
as it is a disease of Vata Dosha, so Snehana (oiling
with medicated oils) and Swedana (fomentation/steam)
can be done along with other medicinal prepara-
tions.

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