

**Critical Interpretation Of Majja Dhatu And Majjavaha Srotas****Dr. Kaustubh Mani Tripath<sup>1</sup>, Dr. Sujit Kumar<sup>2</sup>, Dr. Sunil P. Nikhate<sup>3</sup>**

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**Abstract**

*Majja dhatu is formed as poshak (unstable) Asthi dhatu flows through the majja vaha srotas in to the majja dhara kala and is digested by the majjaagni. In addition to the formation of the marrow, the sclera and the sclerotic fluids of the eye are formed. These are the updhatus of the production of majja dhatu. The waste products (malas) of this metabolic process are eye secretions.*

*This concept of Srotas will further help in the critical interpreting of physiological aspects of human body. It is said that the entire functioning of our body is dependent on Srotas as they carry Sukshma and Sthula Bhava and fulfill the wear and tear of the body.*

*Charaka and Susrutha varies in the understanding of Abhyantara Srotas especially in the consideration of Majja dhatu mulastana and majjavaha Srotas also. This article will help in the brief understanding about the concept of Majja vaha Srotas, its Mulasthana and Majja Dhatu<sup>1</sup>.*

**Key words:** Srotas, Majjavaha Srotas, Majja Dhatu

**1. Introduction**

In the physical body, Majja dhatu is formed as poshak (unstable) Asthi dhatu flows through the majja vaha srotas in to the majja dhara kala and is digested by the Majjaagni. In addition to the formation of the bone marrow, the sclera and the sclerotic fluids of the eye are formed. These are the updhatus of the production of majja dhatu. The waste products (malas) of this metabolic process are eye secretions. Srotas are broadly classified in to two; Bahya and Abhyantara even though they are innumerable in number as suggested by Charaka. The concept of Srotas will further help in the critical understanding of physiological aspects of human body. It is said that the entire functioning of our body is dependent on Srotas as they carry Sukshma and Sthula Bhava and fulfill the wear and tear of the body. Charaka and Susrutha varies in the understanding of Abhyantara Srotas especially in the consideration of Majjavaha Srotas. Susrutha has not explained a special entity or a channel to carry Majja Dhatu in the body rather he believes it is present inside the Sthula Asthi, but Charaka clearly explains the Srotas for Majja Dhatu Vahana. This article will help in the brief

understanding about the concept of Majja vaha Srotas, its Mulasthana and Majja Dhatu<sup>1,2</sup>.

**1.1 Derivation of Majja word**

Majja is word originated Sanskrit word from 'Majjatoti Majja'.

'Majj + Ach + TAP' form the word Majja.

The term Majja can be looked in different angles as it pervades all over the body.

**1.2 Etymology of Majja word:-**

*Majja Dhatu is considered to be the Sara of Asthi just like the Sara found inside the tree according to Vachaspatyam and Shabda kalpadruma declare Majja is the unctuous part found inside Asthi (bone)<sup>3</sup>.*

**1.3 Synonyms of Majja Dhatu:-**

Asthi Sara, bone marrow, Some other similar words can help to understand the meaning of Majja Word.

Majja Ras = Sukra

Majjajah = Majjaya Jayate Iti = Bhumij Gugguluh.

Iti Raj Nighantu

Majjasaram, (Majjayam Saro Yasya) Jatiphalam. Iti Raj Nigantu<sup>4</sup>.

**2. Material and Methodology**

**Source of Data:** Materials related to Majja dhatu and other topics have been collected from different journals, Ayurvedic and Modern text books, Authentic websites ( Pub Med, Drug Bank, NCBI, websites like CIMAP etc.), Reputed Magazines,

Authentic works, Manuscripts, Sanskrit Dictionary etc <sup>[5,6]</sup>.

### 3. Formation of Majja Dhatu

Majja Dhatu is formed from *Asthi Dhatu* by *Uttorottara Dhatu Poshana*. Parasara opinions that food becomes *Rasa* on next day, *Rakta* on the third day, *Mamsa* on *Sharagadhara* say, *Majja Dhatu* gets originated from its previous *Asthi Dhatu*. the fourth, *Meda* on the fifth day, *Asthi* on sixth day, *Majja* on seventh and *Sukra* on eighth day. There are several other opinions on the time taken for the formation of *Dhatu* from *Ahara rasa* extending from *Ahoratra* to one month<sup>7</sup>.

Srotas are the structural and functional entities responsible for health and disease. These are channels of circulation which carry Dhatu undergoing transformation to their destination. The origin of Srotas is from Akasha Mahabhoota as they are Avakashayukta as it is rightly said all the channels and vacant places of the body are born from Akasha mahabhuta.

### 4. Discussion:-

Charaka in specific told there is innumerable number of Srotas as there are innumerable structural entities are present in the body. But for our easy understanding they are broadly classified into two; Bahya modifications of the Pancamahabhuta in which different elements undergo transmutation, transformation, circulation and transportation. The number of Srotas is innumerable because as many structural / physiological factors are present in human body so many are the number of Srotas. There are 9 Bahya Srotas like Sravana, Nayana, Vadana, Ghrana, Guda, Medra and Sharagadara identified the 10th one as Masthaka as one Bahya Randhra. Susrutha mentioned Abhyantara Srotas 11 pairs, and Charaka and Vagbhata explained are 13 pairs. Prana, Udaka, Anna, Rasa, Rakta, Mamsa, Meda, Asthi, Majja, Sukra, Mutra, Purisha & Sweda are the Sukshma Srotas where Susrutha excluded Asthi, Majja & Sweda and included Arthava Majjavaha Srotas Majjavaha Srotas is one among the Abhyantara Srotas enumerated by Charaka. Majjavaha Srotas is not mentioned by Susrutha because he has explained Srotas on the basis of Viddha Lakshana.

In the context of Asthi Bhagna he told that when injury occurs to Asthi, Majja will come out and cause complications. Mula sthana of Majjavaha Srotas are Asthi and Sandhi. Ashtanga Samgrahakara says Parva and Asthi are the Mula Sthana of Majjavaha Srotas. Mula Sthana are the principle organs as far as Majja Dhatu is concerned and they have to be included in locations of Majja Dhathu. Asthi. Sandhi as the main location or Mula is not very clear. This can be hypothetically explained. Asthi is hard, it may become brittle. For Asthi to be durable Sneha quality is needed.

In ancient era of Ayurveda have classified the elements of the body under three fundamental components- *Dosha*, *Dhatu* and *Mala*. Among these basic elements *Dhatus* are especially meant for *Dharana & Poshana* of *Sharira*. When all the above factors act in harmony, it is defined as *Swastha* (health). *Asthi* is the hard part which forms framework of body, which supports the body just like trees stands on support of their inner wood.

Knowledge of *Asthi* can be traced back from *Vedas* passing chronologically down to *Samhitas*. But the scholars preoccupied themselves with only hard parts of human skeleton. There is enough evidence of knowledge of *Asthi Sharir* (osteology) in the ancient India but in *Sutra Rupa* or in dispersed form<sup>8</sup>.

Starting from Pre-*Vedic* period, *Vedic* Period and *Samhita-kalin* period all have somewhat description of *Asthi Sharir* but not in mannered way. Due to different principles, faiths and way of learning, there may be some differences or lacunas from present day knowledge. Collection and critical analysis of various concepts related to *Asthi Sharir* as per modern headings like definitions, constituents, embryology, types, uses and clinical aspects. Thus an effort is undertaken to understand *Asthi Sharir* and its concepts in scientific way. Though there may be some differences or lacuna's from now a day knowledge but, we can have proud on our glorified past of knowledge in every medicinal field especially in *Asthi Sharir* knowledge. During the formation of [Asthi dhatu or bone](#), vayu mahabhuta creates spaces in bones.

#### 4.1 Functions of majja dhatu:

“*Majja sneham balam shukra pushtim pooranam astinaamcha karoti* “

It nourishes body and helps to maintain its functions. Majja dhatu is responsible for strengthens of the body, fills bones and nourishes for next dhatu that is –Shukra dhatu (semen).

**4.2 Majja Vriddhi lakshana (Symptoms of increased majja dhatu )**

1. Anga gourava – feeling of heaviness of body
2. Netra gaurava – feeling of heaviness in eyes
3. Parwa stoulya – clubbing of fingers

**4.3 Majja Kshaya Lakshana (Symptoms of decreased majja dhatu )**

1. Asthi sousheerya (osteoporosis)
2. Bhrama (vertigo)
3. Timira darshana ( blurring of vision)

**4.4 Majja Pradoshaj Vikar –**

Pain in Joint, vertigo, syncope etc. are the Majja Pradoshaj Vikara.

**4.5 Characteristics of person with Majjasara:**

- Eye-Brows and Eye lashes are black and smooth
- People with ideal skin have soft, thin, smooth and lustrous skin.
- They are intelligent and learned.
- They have soft, thin, scanty, oily, dark black and deep rooted hairs are present.
- Mouth, Lips, Palate and tongue are oily.
- They are intelligent and learned.
- Mouth, Lips, Palate and tongue are unctuous and oily.
- They enjoy their long, healthy and happy life <sup>9</sup>.

**4.6 Majjavaha Srotas (channels of Majja) –**

Concept of Majjavaha Srotas has been laid down by Charaka, where as Susruta does not have the opinion of the existence of Majjavaha Srotas. He told Majja is present in Shula Asthi and Sarakta Meda is present in Anuvasthi and Udara. Majja is present all over the body but specifically it is getting circulated throughout the body in its Srotas. Mula (roots) of Majjavaha Srotas is told to be Asthi and Sandhi.

Thus functional activity of Majja will be more in Asthi and Sandhi. According to modern it is said that there are two types of marrow; yellow bone Marrow and Red bone marrow which can be correlated to Majja and Sarakta Meda. The evidences say that Yellow marrow is found in the hollow interior of the diaphyseal portion or the shaft of long bones. Red bone marrow is found only in the flat bones, such as the , sternum (breast) bone, skull, hip bone ribs, vertebrae, and shoulder blades, as well as in the epiphyseal ends and metaphyseal of the long

Bones, such as the femur, tibia, and humerus, where the bone is calcareous or Spongy<sup>10</sup>.

**Conclusion**

While assessing the Majja Guna and Karma, it's evident that it helps in the maintenance of the shape of Asthi along with Vata. Vata and Majja, two different entities having the opposite quality are present inside the Asthi (Vata takes Ashraya in Asthi and Majja is formed inside the Asthi).They both complement each other inside the Asthi. By the time a person reaches old age, nearly all of the red marrow is replaced by Yellow bone marrow. However, the yellow marrow can revert to red if there is increased demand for red blood cells, such as in instances of blood loss. This shows that the findings that have been done by our Acharyas were way great to the modern times.

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