

Review Study on Asthi Sharir (Osteology) In Ayurveda

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Abstract

Asthi is hard substance which remain even after most of part has been decayed. Acharya sushruta Samhita Asthi sharir is substance which remain even after else very part like flesh, muscle etc. Are shattered even after burying body after death. It's remains are last identity of person after demise. According to Shabdakodhakara , it part of body which remain till long period even after death of body. "Hada" Is synonymous of Asthi. Amarakosha has given following synonyms of Asthi - Kulyamn, Kekas, meaning hard substance providing support to body. Knowledge of asthi can be traced back from Bedas passing chronologically down to samhitas. Considering it's history of description and important many methods and thought can be visualize in classical texts.

Keywords - Asthi, Kekas, Amarakosha, Sushruta, muscle, death etc.

Introduction :

It is very clearly apparently from admonition of Galen how great is usefulness of knowledge of bones, since the bones are the foundation of rest of part of body and all the members rest upon them and are supported are proceedings from a primary base.

As we all know that, this entire world can be divided into two types of material i.e. soft and hard. Soft and hard though are antonyms yet are equally important for sustainability. This division is also evident in human body. Here several parts are soft organs and rest hard. Hard part of body is skeleton system which provides support and shape. Thus, parts which provide support, shape, helps in

locomotion, protection to soft organs are hard parts forming nutshell of human body, comprising bones, teeth etc.

Asthi Definition :

Etymological definition - Asthi is that which lives within Mamsa (muscle). Even practically we see that asthi Or bones are enveloped by layers of Mamsa (muscle). Asthi is considered to be a pitruja Avayava - or paternal organ or the part of the body derived from father (sperm). All hard structure are said to be Pitruja.

Asthi is predominantly made up of Prithvi (earth) mahabhuta (element of our creation). The other elements of nature (wind, fire, water and space) are also present, but in latent and recessive form. Functions of Asthi is said to satisfy function of 'Dharana ' or adorning body. It is obviously that bones are structural make up of body.

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Among tridoshas (3 body functional or physiological or components), Vata is said to be seated in bones or Asthi. Asthi is important seats of Vata. Vata increases the mass of Asthi decreases (Asthi kshaya) as in osteoporosis, osteopenia and when Vata pathological decreases. The bone tissue tends to increase (Asthi Vriddhi).

Synonyms :

Following synonyms are used for Asthi.

Kulyam - a bone

Kapha - the skull, cranium, Skull bone.

Keekasa - Firm, Hard

Astri - masculine, not feminine.

Medojam - which is produced from meda.

Asthi Sankhya (Classification of Bones) :

According to Ayurveda Asthi are 5 types -

Ruchaka Asthi - Teeth - the teeth are classified under Ruchaka Asthi.

Kapala Asthi - Flat bones. - the bones of Shira (head), Shankha (temple region), talu (palate, upper part of oral cavity), Kapala (cranial vault), amsa (scapula region, shoulder blade) and Janu (knee) are classified under Kapala Asthi.

Nalaka Asthi - Long bones. Long bones present in Hasta tala (plantar region), Pada Tala (plantar or lower portion of foot), Kurcha - Manibandha (wrist joints), Anguli (fingers and toes), Arms (bahu), Jangha Dvaya (both legs) are classified in Nalaka Asthi.

Taruna Asthi - cartilages. The cartilages found in the region of Akshikosha (orbital sac, eye socket), Sruti (auditory apparatus, ear canal), Ghrana (nasal cavity or passages, olfactory region) and Greeva classified under Taruna Asthi.

Valaya Asthi - curved Bones. - curved bones situated in the pani (hand), Pada (foot), Yuga (Sides of trunk, ribs), payu (anal region, butt) , Vaksha (chest, ribs), prushta (back vertebrae).

Number of Asthi :

Samhitas	Numbers
Sushruta Samhita	300
Charaka Samhita	360
Ashtaang Sangraha	360
Ashtaang hridaya	360
Bhela Samhita	360
kashyap Samhita	360
Bhavprakasha	300

Asthi Dhatu - Dhatus are tissue humoral systems of body. In different permutations and combination Dhatus form various physical organs of the body according to genetically coded information. It is one among the sapta dhatu which are present in Sharira. Form of Dhatu which is present inside the mamsa dhatu is known as Asthi. They are always formed in fixed sequence.

Asthi Poshana and Utpatti :

Chakrapani details it is follow for first 3 dhatu - Rasa after being digested by Rasagni gets concerted in to Rakta and like this Rakta digested with Raktagni gets converted into Mamsa. All dhatu gets converted into next coming Dhatus.

As told by Acharya Charka in chikitsa sthana - after Rasa, Rakta is formed, from Rakta and Mamsa is formed, from Mamsa meda is formed, from Meda Asthi is formed, from Asthi Majja is formed and from Majja Shukra Dhatu is formed, which when gets adequate conditions develop in to Garbha.

According to Kashyap - Asthi and Mamsa of embryo are develop from this Sukra and from these 2 snayu are develop in first 2 month of fetal development.

Time taken formation of Asthi - there are 2 opinion regarding formation of Asthi depends upon time factor. Like on 6 day to 20 day.

Asthidhara Kala - Purisha Dhara Kala is 5 th Kala which Exits in large intestine that is Pakvashaya. function it is separate constituents of Kitta (waste products) in colon. Vayu which

produces in the Pakvashaya is a Poshaka Vayu. Which nourished Poshya Vayu of Body. As We know that Pakvashaya and Asthi. Both are main seat of Vata Dosha. Increase or decrease formation of Vata and Purisha affected all sites of Vata specially Asthi dhatu. Hence Purisha Dhara Kala it means Asthi Dhara Kala.

Asthi Karma -

Deha dharana.

Majja pushti

Asthi support the Mamsa, Sira and Snayu.

Asthi Upadhatu :

The upadhatu of Asthi is Danta (teeth).

Asthi Malas - - Keshha, Loma, Nakha, Roma.

Asthivaha Strotas :

Asthivaha Strotas finds its identity only in Charaka, Vagbhata. Acharya Charaka has described Mulasthana, Dushti Karana and Dushti Lakshana. Exclusion of Asthi Vaha Strotas from Acharya Sushruta list is due to his surgeon vision upon anatomical structure explain as Mulasthana that's why he describe Mula Viddhi Lakshana in reference to injury. Channels of circulation or tracts within body are called Strotas. They are pathways for nutrients products: waste products and doshas during the process of metabolism. Strotas enable their products to reach their destination. They transport dhatu which are undergoing transformation. Strotas are entity which carries onward the converted products from Prakopa and Shamak Aahara in Human body.

Asthivaha Strotas Mula :

According to acharya Charaka - medo dhatu, Jaghana, Asthi Sandhi.

According to Ashtaang hridaya - medo dhatu, Jaghana.

Ashtivaha Strotas Dushti Lakshana - Abhidanta, Dantabhedha, Dantashula, Assthishula, Adhyasthi, Danta vivaranta, disease of hair and nails.

Asthivaha Strotas Dushti Karana - trauma, Excessive exercise, Excessive Stretching, Vata Dosha Pradhana Aahara Vihara.

Asthi Marma :

Total number of Marmas according to anatomical matrix are divided in 5 groups -

1. Sira marma - 41
2. Mamsa Marma - 11
3. Asthi Marma - 8
4. Snayu Marma - 27.
5. Sandhi Marma - 20.

Conclusion :

knowledge about Asthi dates from pre vedic period, concept, believes, methods, usefulness etc. Have changed over time. As per basic definition of Asthi according to Acharya Sushruta ' it is substance which remains as the Last identity of person even after demise'. The pentad division of Asthi Prakara was given mainly in accordance with Shalya Tantra especially for dislocation and fracture of bones. Such detailed knowledge about bones necessary presupposes a careful study of Human skeleton since vedic period. This shows that the knowledge of Osteology was fairly advanced in ancient period, but the scholars preoccupied themselves with only hard parts of human skeleton that is stuff which remain after the softer tissues of body have been disintegrated and this not only bones but cartilages and ligaments too. Thus in this article review we have collected various concept related to Asthi sharir as per modern era like definition, embryology, types, uses. Through there may be some differences or lacunas from now a days knowledge but, we can have proud on our glorified past of knowledge is every medicinal field special in Asthi sharir Knowledge.

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