

**Review Article**

**Comparative study of avedhya sira and sira marma with special reference to Bahavi dhamani**

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**ABSTRACT:**

Aacharya Sushruta who is regarded as the father of surgery described various surgeries meticulously. He during those ancient days performed various major and minor surgeries with surprisingly great accuracy and thus was able to treat dreadful diseases. To meet this high standard of accuracy thorough and proper knowledge of *sharer* was essential. Especially while performing any surgery or *Raktamokshana* one must be aware of the vital points, *Marma* and the *Avedhya Siras* present in the body. Even a slightest trauma to these may lead to severe complications such as severe agonizing pain, deformity or even death. All together there are 107 *Marmas* and 98 *Avedhya siras*. Where in, these are some anatomical structures of dual nature ie. They are *Marmas* as well as *Avedhya siras* viz. *BahaviDhamani* is one of them. Here an effort has been made to study the *Marmas* to *Avedhya siras* with special reference to *Bahavi Dhamani*.

**KEY WORDS:** *Avedhya Sira, Marma, Bahavi Dhamani, Venipuncture, Raktamokshana*

**INTRODUCTION:**

Ayurved is an ancient system of Indian Medicine whose main objective is to maintain the optimum level of health of a healthy individual and treat the disease one. It is a science of life which deals with the study right from the basic fundamentals up to the greatest achievements in the field of medicine and surgery. Aacharya Sushruta is regarded as the 'Father of surgery'. He described various surgeries meticulously such as *Asthibhang* (Fracture of bones), *Lingnash* (Cataract), *Nasasandhan* (Rhinoplasty) and many more. For performing keen surgeries he knows the importance of a thorough anatomical knowledge therefore he dissected many cadavers i.e. *Shavavicchedanam* and observed the details in them and described the micro and macro structures of various organs of body in his *Sharirsthana*. Aacharya Sushruta states that a surgeon must be well versed with the anatomy of body. Especially while performing any surgical procedure he must be well aware of all the *Marmas* and *Avedhya siras*. A slightest injury to such structures may cause a severe aching pain,

deformity or even death.

**Marmas-** These are the vital points of the body. A trauma to *Marma* may cause death. These are the points containing life (*Jeevanasthana*) where *Marma, sira, snayu, asthi* and *sandhi* come together. A detailed description composing of the number of *Marmas*, their constitution, situations in the body, their *angulipramana* as well as signs and symptoms when injured is well elaborated in the '*Marmashariram*'

**Avedhya Sira** - The *Siras* which on *vedhana* or on puncture causes *vaikalya* (deformity) or death. These *Siras* are of great importance with respect to their location, function, relation and nerve supply.

Aacharya Sushruta Keenly observed them, studied in detail and very systematically explained the importance and contraindications of a venipuncture. Some of the *Marmas* of the body are the *Avedhya Siras*. These structures should be carefully protected while performing any surgical procedure to avoid any complications. Therefore a study was carried out to

evaluate the importance of *Avedhya sira* and *Marma* in the present days and to create a relationship between the two.

'*BahaviDhamani*' in the upper extremity which acts as both the *Avedhya Sira* and *Sira Marma* was chosen for the study.

Dr. Ghanekarji correlates it with the 'Brachial artery' and 'basilica vein'.

#### **Aim and Objective:**

1. To study the *Avedhya Sira* and *Sira Marma* and their relationship.
2. To examine the similarity of trauma and effect of venipuncture in them.
3. To evaluate the importance of *Avedhya Sira* and *Sira Marma* in present days.

#### **MATERIALS AND METHODS:**

Material –Relevant text book of Ayurveda and modern science. Cadaver for dissection.

Method - All the references regarding *Avedhya Sira* and *Sira Marma* were collected from the relevant text books of Ayurveda as well as modern medicine. Dissection was carried out as per the guidelines given in Cunningham's manual of dissection and *Sushrut Samhita*. Accordingly discussion was done and conclusions were drawn.

#### **OBSERVATION AND RESULTS:**

According to Acharya Sushruta altogether 700 *Siras* are present that are scattered all over throughout the body.

*Shakha*–400; *Madhya Sharir* - 136; *Urdhavjatrugat*-164

Of the above total 98 *Siras* are described as *Avedhya Siras*. A slight trauma or puncture of these *Siras* may lead to server complications therefore they must be wrapped, well secured while performing any surgery or *Rakta-mokshana*. Their distribution in the body is as *Shakha* - 16; *Madhya Sharir* - 32; *Urdhvajatrugat* - 50.

*Bahavi Dhamani* is one of the *Avedhya Sira*.

In the similar way as per Sushruta there are total 107 *Marmas* or the vital points distributed all over the body. Trauma to these *Marmas* may lead to severe pain and or even death.

*MamsaMarma*– 11; *SiraMarma*– 41; *SnayuMarma*– 27; *AsthiMarma*– 08; *Sandhi Marma* - 20

*Bahavi Dhamani* is one of the *SiraMarma*.

Ghanekarji-relates *Bahavi Dhamani* with the Brachial artery and 'Basilic Vein'.

Brachial Artery is the continuation of Axillary artery in the arm and is the main blood vessel of the upper extremity. Basilic vein lies medial to the brachial artery and ascends to continue as the Axillary vein. Trauma to *Bahavi Dhamani* results in profuse hemorrhage leading to severe complications. Results of trauma to *Marma* or puncture of *Avedhya sira* are same hence; we can purely and deeply establish a relationship between them in accordance with the effects of trauma or venipuncture in them.

#### **DISCUSSION:**

Out of the total number of *Siras* some of the *Siras* are said to be of great importance hence they should be secured from the trauma or puncture, those are named as *Avedhya siras*. Total 98 *Siras* are identified as the *Avedhya* and *Bahavi Dhamani* is one of them. Similarly of the total 107 *Marmas*, 41 *Marmas* are considered as *Sira Marma* and again *Bahavi Dhamani* is one of them. This *Bahavi Dhamani* is co-related with the brachial artery and basilica vein by Ghanekarji. After discussion of the relevant material related to *Avedhya Sira* and *Sira Marma*, we come to know that most *Sira Marmas* are also identified as *Avedhyasira*. Both are almost similar in position. Effect of Trauma in *SiraMarma* is very similar to the effect of Venipuncture of the *Avedhya Sira*. Trauma to Brachial artery or basilica vein may also lead to severe complications.

#### **CONCLUSION:**

1. *Avedhya Sira* and *Sira Marma* have definite relationship.
2. Both have same structural involvements.
3. The sign and symptoms occurring after injury to both the *Avedhya sira* and *Sira Marma* are similar.
4. Trauma or Puncture of veins or arteries results in severe hemorrhage leading to deformity and hence can be correlated with the *Avedhya Sira* and *Sira Marma* as they also result in hemorrhage leading to deformity on trauma or puncture.
5. In the upper extremity *Bahavi* is the *Sira Marma* and *Avedhya Sira*. It is correlated with the brachial artery and Basilic vein since the effect of Trauma to both are same as that of the *Avedhya Sira* and *Sira Marma*.

**Importance:**

Even today while performing any surgery or *Raktamokshna* the knowledge of *Avedhya Sira* and *Sira Marma* is of great importance to Minimize or avoid the complications such as severe pain, deformity and or even death.

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