

**STUDY OF AANI MARMA IN LOWER EXTREMITY**

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ABSTRACT

Marma is key point in the body. Total numbers of marmas are 107. Acharya Sushrut have explained model of marma in Sushrut Samhita Sharirsthan 6th adhyaya. Acharya Sushrut has mentioned a variety of marma. The array is based on four types by Sushrutacharya. It is given as Marmaprakar (types of marma) as per Shadanga, Rachana, Parinam and Pariman. Rachanatmak (Structural) organization of marma is based on five basics as Mansa, Sira, Snayu, Asthi and Sandhi. According to the basic meaning of marma as per Sushrutacharya, the marma is the site where mansa, sira, snayu, asthi and sandhi are collectively present. Aani marma is present in the Urdhwashakha (Upper extremity) as well as in Adhoshakha (Lower extremity). In lower extremity, it is present three angula above the Janu marma (Knee joint) i.e. two inches above the centre of the knee joint. So, it is

requisite to see the basic structures as per the definition of marma given by Sushrutacharya with the help of cadaveric dissection method. So this can in point of fact identifies the modern connection of these five basic structures.

KEYWORDS; Marma, Rachanatmak organization, Aani marma in lower extremity.

INTRODUCTION

Ayurved shows a variety of vital points are mentioned which are important to differentiate. In Rachana Sharir (Anatomy) subject, many chief concepts related to human body are explained. Predominantly in this view, Sushrutacharya has explained Marma topic in his pertinent samhita in Sharirsthan. Amongst all those points, Marma is one of the key aspects. Marma is the obligatory aspect in human body. Sushrutacharya mentioned this sensitivity in Sharirsthan 6th adhyaya. He defines marma as the site in which there is existence of Mansa (muscles), Sira (vessels), Snayu (ligaments/tendons), Asthi (Bones) and Sandhi (Joints).^[1] The union of all these five structures comprise the marma Pradesh or marma sthan. These points are seats of existence. In each marma one of the components is typically present and others present in traces. Also, arrangement of marma is mentioned under certain category. Such as types of marma according to Shadang (Location), Rachana (Structure), Pariman (Measurement) and Parinam (Injury outcome).^[2] Out of this, as per Rachana, above mentioned five types are present. The details of Aani marma are as follows,

Table No 1: Information of Aani marma^[3]

Name of the marma	Aani
Location	Adhoshakha (Lower extremity) it is present three angula above the Janu marma (Knee joint) i.e. two inches above the centre of the knee joint.
Number	02
Rachanatmak	Snayu marma
Parinam	Vaikalyakara
Pariman	1/2 anguli (fingure breadth)
Marma viddha laxan	Shophabhivruddhi (Swelling) and Stabdhasakthi (pain and loss of function of knee joint).

Whereas doing any surgical procedure, a surgeon must have the necessary acquaintance of the structures which are present at the operational site.^[4] For this, the information of marma is important. So, it is critical to see the five basic structures present in it with the help of modern anatomy by using cadaveric dissection study method.

MATERIAL AND METHODOLOGY

MATERIAL

Literary Study

- i. Marma literature available from Ayurvedic and modern texts.

Cadaveric study

- a. Dead body – 1 male cadaver.
- b. Instruments – Dissection instruments.

METHODOLOGY

- a. Literary study of Aani marma in lower extremity was done using all the concerned Ayurvedic and modern text books.
- b. Dissection of selected male cadaver was done with the help of dissection instruments related to Aani marma (in lower extremity) at the dissection hall of Dr. J. J. Magdum Ayurved Medical College, Jaysingpur, Maharashtra, India.
- c. From the foundation of literary study, recognition of Aani marma was done on the cadaver.
- d. On the basis of extent given in Samhitas, the area was marked around the Aani marma point.
- e. Complete analysis was done concerned with the marked points.
- f. With the help of exact and methodical dissection, related structures of Aani marma in terms of Mansa (muscles), Sira (vessels), Snayu (ligaments/tendons), Asthi (bones) and Sandhi (joints) was documented as mentioned in proposition.
- g. Concerned elucidation was interconnected with the hypothesis about the Ayurvedic Rachana of Aani marma in lower extremity under the title of Mansa, Sira, Snayu, Asthi and Sandhi.

RESULTS AND DISCUSSION**RESULTS****Table No. 2: Structures seen at the site of Aani marma during the dissection**^[5,6,7]

Sr. No.	Ayurvedic View	Modern Correlation
1	Mansa	Lower end of Rectus Femoris, Vastus Medialis, Vastus Intermedius
2	Sira	Femoral Vessels
3	Snayu	Tendon of Quadriceps Femoris muscle
4	Asthi	Lower end of Femur and Patella
5	Sandhi	Joint between Patella and Femur



Photo -1– Tendon of Quadriceps Femoris muscle and Rectus Femoris, Vastus Medialis Muscles.



Photo -2– Femoral Vessels.

DISCUSSION

A variety of references are available about the marma by different Acharyas. But Sushrutacharya has given more elaborative information about the assorted marmas. He has given the essential sense of marma as it is the variation of Mansa (Muscles), Sira (Vessels), Snayu (Ligaments/Tendons), Asthi (Bones) and Sandhi (Joints). All above five structures are present in each marma. The high quantity of each structure varies in particular marma. Association of marma is explained as Shadangbhed (Location), Rachana (Structure), Pariman (Measurement) and Parinam (Injury effect). In this study, more stress is given on the agreement of marma as per Rachana (Structure). Aani marma is present in lower extremity three angula above the Janu marma (Knee joint) i.e. two inches above the centre of the knee joint. It is vakailyakara marma means injury to this marma can produce any deformity in

affected region. The five relative structures seen during the dissection are as, Mansa - Lower end of Rectus Femoris, Vastus Medialis, Vastus Intermedius, Sira - Femoral Vessels, Snayu - Tendon of Quadriceps Femoris (Vastus Lateralis, Vastus Medialis, Vastus Intermedius and Rectus Femoris muscles), Asthi- Lower end of Femur and Patella and Sandhi - Joint between Patella and Femur. Along with Aani marma there are other marmas which are called as vakailyakara in the lower extremity such as, Koorcha, Urvi, Janu and Lohitaksha.^[8]

CONCLUSION

Sushrutacharya have specified the information and significance of marmas according to surgical point of view. So, he has given exclusive organization of marmas. Out of one hundred and seven total marmas, 44 marmas are vaiklyakara marmas. 10 vaiklyakara marmas are present in the lower extremity. Aani marma present in lower extremity, three angula above the Janu marma (Knee joint) with its related structures as, Lower end of Rectus Femoris, Vastus Medialis, Vastus Intermedius, Femoral Vessels, Tendon of Quadriceps Femoris (Vastus Lateralis, Vastus Medialis, Vastus Intermedius and Rectus Femoris muscles), Lower end of Femur and Patella and Sandhi and Joint between Patella and Femur.

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