



**ANATOMICAL STUDY OF DEFICIENT STRUCTURES IN STANMULA MARMA**

**Aayasha Parveen<sup>\*1</sup>, Mohd. Khalid<sup>2</sup> and Prof. Dr. Madhavi Goswami<sup>3</sup>**

<sup>1</sup>P.G Scholar, P.G. Dept. of Sharir Rachana, Rishikul Campus, Haridwar.

<sup>2</sup>P.G Scholar, P.G. Dept. of Agadh Tantra Avam Vidhi Vaidhyaka, Rishikul Campus, Haridwar.

<sup>3</sup>Prof. & H.O.D -P.G. Dept. of Sharir Rachana, Rishikul Campus, Haridwar Registrar of Utrakhnad Ayurved University, Dehradun.

**\*Corresponding Author: Aayasha Parveen**

P.G Scholar, P.G. Dept. of Sharir Rachana, Rishikul Campus, Haridwar.

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**ABSTRACT**

*Marma*, being the vital points of the body are confluence of muscles, veins, ligaments, bones and joints; in these places *Prana* (life force) resides naturally; hence, trauma at these points either leads to death or disability. *Acharya Sushruta* described *Marma* point to be conglomeration of five structural sites, *Mamsa, Sira, Snayu, Asthi and Sandhi*. *Marma* points always do not contain all the above mentioned five parts. *Acharya Sushruta* has quoted others view in his *Samhita* that *Sadhya Pranhara Marma* contains all the five of them, making these points deadliest in character. *Kalantara Pranhara Marma* may contain four of these structures whereas *Vishalyaghna Marma* is with three structures; *Vaikalyakara Marma* with two structures and *Rujakar Marma* with only one structure. *Stanmula Marma* is one of the *Vakshagata Kalantara Pranhara Marma* located on either side two *angul* below the breast. This calls for detailed evaluation of structural entities lying in these sites for better understanding of *Marma* science and its utilisation in *Marma Chikitsa*. Aims and Objectives are compile the literature about *Stanmula Marma* from classical and Ayurvedic texts with modern parlance and cadaveric study. To find out structural deficient in *Stanmula Marma*.

**KEYWORDS:** *Marma, Kalantara Pranhara Marma, Mansa, Sira, Snayu, Asthi & Sandhi.*

**INTRODUCTION**

The word *Marma* and its relevance exist from the Vedic period in India and for the first time *Marma* word was used in *Athrvaveda* under the concept of vital points in warfare. Therefore, it can be supposed that this science was used to conserve & protect these vital areas during surgery in the older era. According to views of *Acharya Sushruta Marma Sharir* is "Half part of the *Shalya Tantra*."<sup>[1]</sup> *Marma* word is derived from the *Sanskrit*

*dhatu* "Mri", that means which cause death or disability and that literary meaning life spot, conjugating of different body structures.<sup>[2]</sup> *Marma* are confluence of *Mams, Sira, Snayu, Asthi, Sandhi*. In these places *Prana* resides specially by nature, hence when *Marma* are injured, they produce their respective effects.<sup>[3]</sup> *Acharya's* have described one hundred and seven *Marma* points in the body located in trunk and extremities.<sup>[4]</sup>

**Kalantara Pranhara Marma**

वक्षोमर्माणि सीमन्ततलक्षिप्रेन्द्रवस्तय ।

कटिकतरुणे सन्धी पार्श्वजौ बृहती च या ।

नितम्बाविति चैतानि कालान्तरहराणि तु ॥<sup>[5]</sup> (सु०शा० ६/१०)

**Stanamula Marma**

स्तनयोरधस्ताद् द्वयङ्गुलमुभयतः स्तनमूले, तत्र कफपूर्णकोष्ठतया म्रियते ॥<sup>[6]</sup> (सु०शा० ६/२६)

स्तनरोहितोमूलाख्ये द्वयङ्गुले स्तनयोर्वदेत् । उर्ध्वाधोऽस्त्रकफपूर्णकोष्ठो नश्येत्तयोः कमात् ॥<sup>[7]</sup> (अ०ह०शा० ४/१४)

स्तनयोरधस्ताद् द्व्यङ्गुलमुभयतः स्तनमूले, तयोः कफपूर्णकोष्ठस्य मरणम् ।।<sup>[8]</sup> (अ०स०शा० 7/12)

*Stanamula Marma* situated below the Breast on both sides, two in numbers, Two *Angul* Praman on either side,

Injury to these causes death from *Kapha* filling inside the chest.

• **Classification of *Stanamula Marma***

Type of classification	Acharya Sushruta	A.S	A.H
According to the predominance of structures	<i>Sira Marma</i>	<i>Sira Marma</i>	<i>Sira Marma</i>
§ According to effect or <i>Marmaaghat</i>	<i>Kalantara Pranhara Marma</i>	<i>Kalantara Pranhara</i>	<i>Kalantara Pranhara</i>
According to <i>Angul Pramana</i>	2 <i>angul</i>	2 <i>angul</i>	2 <i>angul</i>

❖ **View of different commentators on *Stanamula Marma***

**Regional anatomy/ involved anatomical structures and their applied Anatomy**

Underlying important anatomical structures and there applied anatomy-

According to Dr. Ghanekar has considered the lower portion of the Pectoralis major muscle for the *Stanamula Marma*. Injury to these causes death from *Kapha* filling inside the chest with troublesome cough and breathing.<sup>[9]</sup>

Dr. J. N. Mishra has concluded the Lower portion of the Pectoralis major as this Marma.<sup>[10]</sup> Dr. R.R. Pathak

considered Base of the Lungs for this Marma.<sup>[11]</sup> Dr. Avinash lele, Dr. Subhash Ranade, Dr. David Frawley suggested the internal mammary artery and vein, drainage to Axillary lymph glands. Vagus nerves and Intercostal nerves, Pectoralis major and Pectoralis minor muscles, Intercostal muscles are related to this Marma. injury to these Marma can cause Pneumothorax, bleeding and death after some time. It is *Kalantara Pranhara Marma*.<sup>[12]</sup> Dr. Sunil Kumar Joshi has concluded internal mammary vessels as this Marma and injury to this Marma leads to death caused by Pleural effusion, cough, and dyspnoea.<sup>[13]</sup>

COMMETATORS	SITE/ INVOLVED ANATOMICAL STRUCTURES
Dr. B.G. Ghanekar	Lower portion of the Pectoralis major
Dr. J. N. Mishra	Lower portion of the Pectoralis major
Dr. R. R. Pathak	Base of the Lungs
Dr. Sunil Kumar Joshi	Internal mammary vessels
Dr. Avinash lele, Dr. Subhash Ranade, Dr. David Frawley	Internal mammary artery and vein, drainage to Axillary lymph glands. Vagus nerves and Intercostal nerves, Pectoralis major and Pectoralis minor muscles, Intercostal muscles

**DISSECTION<sup>[14]</sup>**

- Dissection of Regional anatomy of *Vakshagata Stanmula Kalantara Pranhara Marma* done by available cadavers in pg. dept. of Rachna Sharir, Rishikul Campus haridwar.
- The method of dissection was followed by the Cunningham's Practical Anatomy.

**OBSERVATION AND RESULT**

On the basis of literature study of *Ayurveda* terminology with their modern structure are tabulated below. This helps us in finding the deficient structures in these *Marma*. *Ayurvedic* terminology & their modern structure.

**Table No. 1: AYURVEDIC TERM MODERN TERM.**

AYURVEDIC TERM	MODERN TERM
<i>Mamsa</i>	Muscle
<i>Sira</i>	Blood vessels. Nerve
<i>Snayu</i>	Tendon
<i>Asthi</i>	Bone
<i>Sandhi</i>	Joint or Union of any two above structures

**STANAMULA MARMA**

*Stanamula Marma* situated below the Breast on both sides. Below is the tabulation of *Vakshagata Stanmula Kalantarpranhar Marma* with their normal structure &

deficient structure. Observation are analysed on the basis of cadaveric dissection and correlated with the view of ancient description of these Marma by Acharya's with special reference to modern science.

**Table No. 2: Normal structure & deficient structure at Stanamula Marma. MODERN STRUCTURE AYURVEDIC STRUCTURE DEFICIENT STRUCTURE.**

	MODERN STRUCTURE	AYURVEDIC STRUCTURE	DEFICIENT STRUCTURE
1	Internal mammary artery and vein	Sira	
2	Vagus nerve, 4-6 intercostal nerves	Sira	
3	Pectoralis major and minor muscles	Mansa	
4	Intercostal muscles	Mansa	no deficient structure are found
5	4 <sup>th</sup> intercostal space (4 <sup>th</sup> rib)	Asthi	
6	Suspensory ligaments of cooper (breast)	Snayu	
7	Internal thoracic, lateral thoracic, superior thoracic, acromiothoracic artery	Sira	

**DISCUSSION**

*Acharya Sushruta* has described *Marma* point to be conglomeration of five structural sites, *Mansa*, *Sira*, *Snayu*, *Asthi* and *Sandhi*. *Marma* points always do not contain all the above mentioned five parts. *Acharya Sushruta* has quoted others view in his *Samhita* that *Sadhya Pranhara Marma* contains all the five of them, making these points deadliest in character. *Kalantara Pranhara Marma* may contain four of these structures whereas *Vishalyaghna Marma* is with three structures; *Vaikalyakara Marma* with two structures and *Rujakar Marma* with only one structure. On the basis of cadaveric study normal structure of these marma are explained in observation, from them deficient structures are find out. The probable structures related with Stanmula Marma based on five structural entities are listed as

- *Mansa* (Muscles) – intercostal muscles, pectoralis and pectoralis major muscles.
- *Sira* (vessels) – Internal thoracic, lateral thoracic, superior thoracic, acromiothoracic artery, 4,6 intercostal nerves.
- *Snayu* (Ligaments) - Suspensory ligaments of cooper (breast)
- *Asthi* (bones) – 4<sup>th</sup> intercostal space (4<sup>th</sup> rib)
- *Sandhi* (joints) - Union of above structures.

Thus Stanmula Marma has all marmaghata structures are present.

- Stanmula The literal meaning of this word is itself clear by the word stan and mula. It means root (*mula*) of mammary gland(*stana*).<sup>[15]</sup> This denotes the nipple of Marma. Study shows that Stanmula marma has all *Marmaaghat* structures are present.

When we check normal position of *Stanmula Marma* *Acharya Sushruta* stated it is present below the Breast on both sides, two angul in *Praman*. According to Dr. Ghanekar has considered the lower portion of the Pectoralis major muscle for the *Stanamula Marma*. Injury to these causes death from *Kapha* filling inside the chest with troublesome cough and breathing. Dr. J. N. Mishra has concluded the Lower portion of the Pectoralis

major as this Marma. Dr. R .R. Pathak considered Base of the Lungs for this Marma. Dr. Avinash lele, Dr. Subhash Ranade, Dr. David Frawley suggested the internal mammary artery and vein, drainage to Axillary lymph glands. Vagus nerves and Intercostal nerves, Pectoralis major and Pectoralis minor muscles, Intercostal muscles are related to this Marma. injury to these Marma can cause Pneumothorax, bleeding and death after some time. It is *Kalantara Pranhara Marma*. Dr. Sunil Kumar Joshi has concluded internal mammary vessels as this Marma and injury to this Marma leads to death caused by Pleural effusion, cough, and dyspnoea.

Anatomically this point is situated below the nipples. nipple is variable in position but usually lies in 4<sup>th</sup> inter costal space.<sup>[16]</sup> So *Stanmula Marma* should be 2 finger breadth. This is area of Internal mammary vessels and *Acharya's* said it is *Sira Marma*. Injury to internal mammary vessels cause severe dyspnoea and hemothorax.<sup>[16]</sup> And *Acharya Shushruta* stated the injury to these *Marma* fills up the koshtha with cough and proves to be fatal with troublesome cough and breathing. so internal mammary vessels should be considered as *Stanmula Marma*.

**CONCLUSION**

*Stanmula Marma* have no deficient structures are found. They have all elements of Marma *Mansa*, *Sira*, *Snayu*, *Asthi* & *Sandhi*. internal mammary vessels should be considered as stanmula marma.

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