



ANATOMICAL STUDY OF DEFICIENT STRUCTURES IN STANROHITA MARMA

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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. *Stanrohita Marma* is one of the Vakshagata Kalantara Pranhara Marma located on either side two *angul* above 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 *Stanrohita Marma* from classical and Ayurvedic texts with modern parlance and cadaveric study. To find out structural deficient in *Stannula 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*."¹ *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.² *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.³ *Acharya's* have described one hundred and seven *Marma* points in the body located in trunk and extremities.⁴

Kalantara Pranhara Marma

वक्षोमर्माणि सीमन्ततलशिप्रेन्द्रवस्तय ।
कटिकरुणेषु सन्धी पापर्वजौ बृहती च या ।
नितम्बाविति चैतानि कालान्तरहराणि तु ।।¹ (सु० भा० ६/१०)

2. Stanrohita Marma-

स्तनवृक्षकयोर्ध्वं द्व्यङ्गुलमुभयतः स्तनरोहितौ, तत्र लेहितपूर्णकोशतया च प्रियते ।⁶
(सु० भा० ६/२६)

स्तनरोहितो मूलाख्ये द्व्यङ्गुले स्तनयोर्वदेत् । उर्ध्वाधोऽस्त्रकफापूर्णकोशे न प्रियेत्योः
कमात् ।।⁷ (अ० भा० ४/१४)

स्तनवृक्षकयोर्ध्वं द्व्यङ्गुलमुभयतः स्तनरोहिते, तयो माणितपूर्णकोशस्य च
मरणम् ।।⁸ (अ० भा० ७/१३)

Stanrohita Marma situated above the nipples on both sides, two in numbers, Two *Angul Pramana* on either side, Injury to these causes death from blood filling inside the chest.

Table no:-1 Classification of Stanrohita Marma

Type of classification	Acharya Sushruta	A.S	A.H
According to the predominance of structures	Mamsa Marma	Mamsa Marma	Mamsa Marma
According to effect or Marmaaghata	Kalantara Pranhara Marma	Kalantara Pranhara Marma	Kalantara Pranhara Marma
According to Angul Pramana	½ Angul	½ Angul	½ Angul

• View of different commentators on *Stanrohita 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 internal mammary muscle for the *Stanrohita Marma*. Injury to these *Marma* leads to death caused by filling inside the chest by blood with cough and dyspnoea.⁹ Dr. J. N. Mishra has concluded the internal mammary vessels as this *Marma*.¹⁰ Dr. Avinash lele, Dr. Subhash Ranade, Dr. David Frawley have suggested the internal mammary artery and vein, superior vena cava, ascending aorta, Vagus nerves, Intercostal muscles, Pectoralis major and Pectoralis minor muscles, some portion of the Latismus dorsi, are related to this *Marma*. Injury to the pulmonary artery will cause severe haemorrhage, collapse and death after some time. It is *Sadhya Pranhara* type of *Marma*.¹¹ Dr. Sunil Kumar Joshi has concluded Lower portion of the Pectoralis major muscle as this *Marma* and injury to this *Marma* leads to death caused by haemothorax, cough, dyspnoea and death.¹²

Table no:- 2 View of different commentators on Stanrohita Marma-

Commentators	Site / Involved Anatomical Structures
Dr. B.G Ghanekar	Internal mammary vessels
Dr. J.N. Mishra	Internal mammary vessels
Dr. Avinash lele, Dr. Subhash Ranade, Dr. David Frawley	Internal mammary artery and vein, superior vena cava, ascending aorta, Vagus nerves, Intercostal muscles, Pectoralis major and Pectoralis minor muscles, some portion of the Latismus dorsi
Dr. S.K. Joshi	Lower portion of the Pectoralis major muscle

DISSECTION¹³

- Dissection of Regional anatomy of Vakshagata *Stannula 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. 3 -ayurvedic Term Modern Term

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

STANAROHITAMARMA:-

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. 4 Normal structure & deficient structure at Stanarohita Marma.

	Modern Structure	Ayurvedic Structure	Deficient Structure
1	Intercostal muscles	Mansa	
2	Pectoralis minor and major muscles	Mansa	
3	Latisimus dorsi muscle	Mansa	
4	4 th rib	Asthi	
5	Pulmonary and internal mammary artery Ascending aorta	Sira	
6	Vagus nerve	Sira	no deficient structure are found
7	Superior vena cava and internal mammary vein	Sira	
8	Suspensory ligament	Sandhi	
9	Union of above structure	Sandhi	

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 Stanrohita Marma based on five structural entities are listed as

- Mansa (Muscles) – intercostal muscles, pectoralis and pectoralis major muscles Latisimus dorsi muscle.
- Sira (vessels) – Pulmonary and internal mammary artery, Ascending aorta, Vagus nerve.
- Snayu (Ligaments) - Suspensory ligaments of cooper (breast)
- Asthi (bones) - 4th intercostal space (4th rib)
- Sandhi (joints) - Union of above structures.

Thus Stanrohita Marma has all marmaghata structures are present.

- it is 1/2 *Angul* in *Pramana* situated above the nipples on both sides and Injury to these causes death from blood filling inside the chest. According to Dr. Ghanekar has considered the lower portion of the internal mammary muscle for the *Stanarohita Marma*. Injury to these Marma leads to death caused by filling inside the chest by blood with cough and dyspnoea. Dr. J. N. Mishra has concluded the internal mammary vessels as this Marma. Dr. Avinash lele, Dr. Subhash Ranade, Dr. David Frawley have suggested the internal mammary artery and vein, superior vena cava, ascending aorta, Vagus nerves, Intercostal muscles, Pectoralis major and Pectoralis minor muscles, some portion of the Latismus dorsi, are related to this Marma. Injury to the pulmonary artery will cause severe haemorrhage, collapse and death after some time. It is *Sadhya Pranhara* type of *Marma*. Dr. Sunil Kumar Joshi has concluded Lower portion of the Pectoralis major muscle as this Marma and injury to this Marma leads to death caused by haemothorax, cough, dyspnoea and death
- Anatomically it is area of 2nd and 3rd inter costal space (2 finger breadth above nipple i.e. 4th I.C.S.) Here pectoralis major¹⁵ muscle is mainly present. Injury over the muscle causes haemorrhage.¹⁶ It is Mansa Marma, so Pectoralis major muscles should be considered as Stanrohit marma.

CONCLUSION:-

Stanrohota 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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