



Importance And Modern Relevance Of Marma Sharira In Surgical Practice: A Review Article

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Abstract:

Marma Sharira, a key concept in Ayurveda, refers to vital anatomical points where muscles, veins, ligaments, bones, and joints meet. Traditionally revered for their life-sustaining nature, these points were meticulously studied and protected during surgical interventions in ancient India. Marmas are the energy reservoirs, the centre of consciousness, and the hidden essential spots of the body and psyche. Marmas, which resemble acupressure spots, relate to different nerves (Nadis) and energy wheels (Chakras). In modern surgical practice, the understanding of Marma Sharira offers significant clinical insights, particularly in trauma care, regional anaesthesia, and minimally invasive procedures. By correlating Marma points with critical neurovascular junctions and anatomical landmarks recognized in contemporary medicine, surgeons can enhance surgical precision, minimize iatrogenic injury, and improve patient outcomes. The Marma points are where the life power, or Pran is located. Year-long blockages in the Marma points caused by toxins, stress, and bad emotions can result in pain, energy blockages, swelling, and a variety of ailments. Ayurveda implies marvel effect with Marma practice in surgical field through vital points to be focused on while treating the ailments.

Index Terms - Marma, Marma Sharira, Vital Points, Marmabhighata.

I. INTRODUCTION

Marma Sharira, a vital concept in Ayurveda, refers to specific anatomical sites in the human body where muscles (mamsa), veins (sira), ligaments (snayu), bones (asthi), and joints (sandhi) meet. The science of Marma or Marma vidya is extraordinary and dynamic Ayurvedic therapy that has tremendous value in health, longevity, spiritual practice and diseases. Marma therapy or Marma chikista (Treatment through vital points) is an important method of Ayurvedic treatment for entire spectrum of health complaints in major and minor. According to the Acharya Sushruta, Marma Sthanas are the points where Vatta, Pitta, Kapha, Sattva, Rajas, Tama are present along with Chetana Dhatu and Atma. In comparison to an elaborate and tedious description of all the structures of the body, the knowledge of regional Anatomy finds its better scope in management of the injuries involving the Marma or the vital parts of the body. These points are considered highly sensitive and vital because any trauma to them can lead to serious consequences, including dysfunction or death. With 107 marma points described in Ayurvedic texts like Sushruta Samhita, they hold a unique position in traditional medical practice and are gaining recognition in modern surgical and clinical settings. These points, numbering 107 hold both physiological and therapeutic significance. Historically, knowledge of Marma points was essential for warriors and surgeons alike, guiding interventions to either avoid fatal injuries or strategically disable opponents. In modern surgical practice, the understanding of Marma Sharira offers a valuable perspective on minimally invasive techniques, neurovascular preservation, and trauma management. As contemporary medicine increasingly acknowledges the importance of holistic and integrative approaches,

the ancient wisdom of Marma Sharira is gaining renewed relevance. This term Marma is first ever traced in Vedic literature of India i.e. Rigveda, in connection with warriors ready to go to battlefield. They are advised to make themselves fully equipped with required ornaments to protect the vital parts (Marma) of the body by the armor so that they may get the victory without having any injury on his vital part of the body. Sushruta samhita gives detailed information of Marmas based on the body organs or structures involved, the time bound consequences of the trauma, the area and the sizes, the sites and location over the body and lastly the number of Marmas fall in various groups, have been the probable approaches towards the understanding of the concerned literatures. This article explores the significance of Marma Sharira in surgical contexts, highlighting its role in enhancing patient outcomes, preserving vital structures, and bridging traditional knowledge with modern medical science.

Classification of Marma

Marma points are classified based on **location, structure, size, and effects of injury**. Below is a detailed classification:

1. Based on Location (Sthana Bheda)

There are **107 marma points**, classified based on body regions:

Region	Number of Marmas
Shakha (Extremities - upper and lower limbs)	44
Madhya Shareera (Trunk)	12
Uro Bhaga (Chest)	09
Shira (Head & Neck)	37
Udar (Abdomen)	03
Guda (Perineal region)	01
Total	107

2. Based on Tissue or Structure Involved (Rachna Bheda):

Structure (Type of tissue)	Number	Description
Mamsa Marma (Muscle)	11	Injury causes bleeding and muscle dysfunction
Sira Marma (Vessels)	41	Injury leads to bleeding or circulatory shock
Snayu Marma (Ligaments/Tendons)	27	Leads to immobility or pain
Asthi Marma (Bones)	08	Leads to deformity or severe pain
Sandhi Marma (Joints)	20	Causes loss of movement or joint issues
Total	107	

3. Based on Effect of Injury (Sadyah Pranahara, Kalantara Pranahara, etc.):

Type	Number	Description
Sadyah Pranahara	19	Fatal immediately after injury
Kalantara Pranahara	33	Fatal over time if untreated
Vishalyaghna	03	Fatal when a foreign object is removed from the marma
Vaikalyakara	44	Fatal when a foreign object is removed from the marma
Rujakara	08	Causes severe pain but not fatal
Total	107	

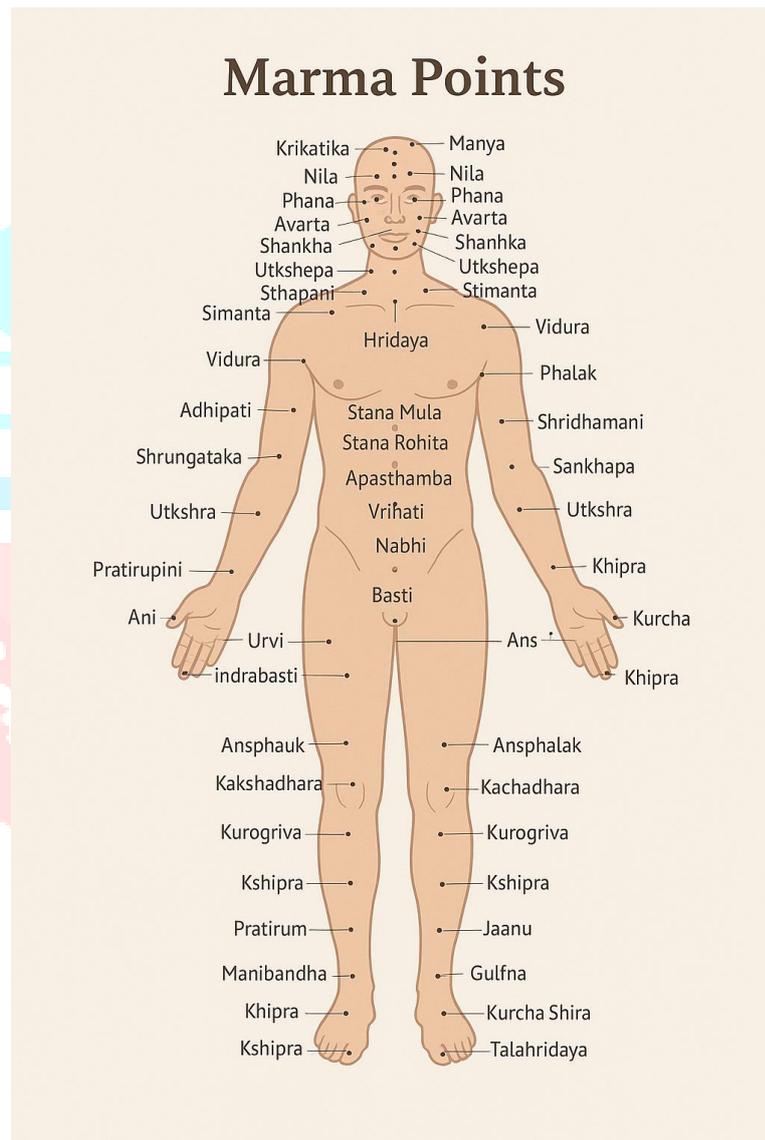


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MARMABHIGHATA (INJURY TO MARMA): -

Marmabhighata suggests any injuries to Marma in the body due to incision, stabbing, burning or external blow which is mild or severe in nature. Marmabhighata is likely to produce subjective manifestations governed by the extent and the nature of injuries to the Marmas. Considering these factors Sushruta has dealt them in three broad headings namely, (1) General symptoms (2) particular symptoms (3) consequential prognosis. More emphasis has been given in dealing with the manifestations based on the consequences precipitating during the course of the trauma. Certain general manifestations like Bhrama (confusion), Pralapa (delirium), Dourvalya (weakness), Chittanasha (lack of consciousness), Strastanga (restlessness), loss of sensation of parts, rise in body temperature, loss of function of the joints, unconsciousness, shallow breathing, severe pain, bleeding, loss of perception of senses, giddiness, paleness of the body, burning sensation over the cardiac area and postural un stability are commonly seen in Marmabhighata. Above all the sign and symptoms are results when Marma is injured. Apart from these sign and symptoms some specific diseases are produced in Individual Marma also.

Table 1: Consequence and Patho-physiological changes resulting from trauma to specific Marma of upper extremity along with their location and extent of area.

Sr. No.	Name of the Marma	Location	Extent or Area	Nature and Consequence of Marma	Consequential Prognosis
1	Kshipra	In between thumb and the index finger	1/2 Angula (0.93 cm)	Snayu & Kalantara pranahara	Aksepaka (clonic spasm or convulsions) of the hand and ultimately leads to death
2	Tala Hridaya	Mid of the palm at joining the line along with the middle finger	1/2 Angula (0.93 cm)	Mamsa & Kalantara pranahara	Severe pain and death
3	Kurcha	Above on both sides of Kshipra Marma	4 Angula (7.5 cm)	Snayu & Vaikalyakara	Shivering and bending deformity of the hand
4	Kurcha Sira	Below and one side of Manibandha sandhi (Wrist joint)	1/2 Angula (0.93 cm)	Snayu & Vaikalyakara	Pain and swelling of the affected part
5	Manibandha	At the junction in between palm of the hand and fore hand i.e. Wrist joint	2 Angula (3.75 cm)	Sandhi & Vaikalyakara	Pain, rigidity or Kunitwa (Deformity)
6	Indravasti	Mid of the fore arm facing to ventral aspect of the hand	2 Angula (3.75 cm)	Mamsa & Kalantara pranahara	Excessive hemorrhage leads to death
7	Kurpura	At the junction of the forearm and arm i.e. Elbow joint	3 Angula (5.6 cm)	Sandhi & Vaikalyakara	Permanent disability of the limb
8	Ani	On both the sides, three Angula (finger) above the elbow joint	3 Angula (5.6 cm)	Snayu & Vaikalyakara	Swelling, Stiffness or paralysis of the arm
9	Bahvi	In the mid of the arm	1/2 Angula (0.93 cm)	Sira & Vaikalyakara	Wasting or atrophy of the arm due to loss of diminished blood supply
10	Lohitaksha	At root of the upper extremity (brachium) adjacent to auxiliary	1/2 Angula (0.93 cm)	Sira & Vaikalyakara	Pakshaghata (hemiplegic) and Shosa (atrophy) of the whole upper

		fold and above the Bahvi Marma			extremity due to loss of blood or diminished blood supply
11	Kakshadhara	In between the chest and arm pit	1/2 Angula to 1 Angula	Snayu & Vaikalyakara	Precipitates paralysis of the limb

Table 2: Consequence and Patho-physiological changes resulting from trauma to specific Marma of lower extremity along with their location and extent of area.

Sr.No.	Name of the Marma	Location	Extent or Area	Nature and Consequence of Marma	Consequential Prognosis
1	Kshipra	In between great toe and the second toe of the foot	1/2 Angula (0.93 cm)	Snayu & Kalantara pranahara	Aksepaka (clonic spasm or convulsions) of the leg and ultimately leads to death
2	Tala Hridaya	Mid of the sole of the foot (plantar aspect) to a straight line drawn from the root of the middle toe	1/2 Angula (0.93 cm)	Mamsa & Kalantara pranahara	Pain & Death
3	Kurcha	Above and both sides of the Kshipra Marma	4 Angula (7.5 cm)	Snayu & Vaikalyakara	Shivering and bending deformity of the foot
4	Kurcha Sira	Both sides of Gulpha Sandhi (ankle joints)	1 Angula (1.86 cm)	Snayu & Vaikalyakara	Pain and swelling of the affected part
5	Gulpha	Junction (ankle joint) of Pada (foot) and Jangha (leg)	2 Angula (3.75 cm)	Sandhi & Rujakara	Stabdhapada, Khanjata i.e. pain, rigidity or limping foot, and impotency
6	Indravasti	Mid of the Jangha (leg) in the line of the Parsani (heel or calcaneum)	1/2 Angula (0.93 cm)	Mamsa & Kalantara pranahara	Excessive hemorrhage leads to death
7	Janu	Junction of Jangha (leg) and Uru (thigh)	3 Angula (5.6 cm)	Sandhi & Vaikalyakara	Limping or Lameness (difficulty in walking)
8	Ani	Both the sides of lower one third part of the femur, three fingers above the Janu (knee joint)	1/2 Angula (0.93 cm)	Snayu & Vaikalyakara	Urusthambha (Enormous swelling and stiffness of the thigh)
9	Urvi	Mid of the Uru (thigh)	1 Angula (1.86 cm)	Sira & Vaikalyakara	Wasting of the Sakthi (atrophy of the arm and legs) due to loss of

					blood or diminished blood supply
10	Lohitaksha	Root of fold of Uru (thigh), above the Urvi Marma and below the Vankshana Sandhi (Hip joint)	1/2 Angula (0.93 cm)	Sira & Vaikalyakara	Pakshaghata (hemiplegic) and Shosa (atrophy) of the whole inferior extremity due to loss of blood or diminished blood supply
11	Vitapa	In between the Vanksana (Groin) and the Vrisana (Testis)	1 Angula (1.86 cm)	Snayu & Vaikalyakara	Rise impotency or oligospermia

Table 3: Consequence and Patho-physiological changes resulting from trauma to specific Marma of head & neck along with their location and extent of area.

Sr. No.	Name of the Marma	Location	Extent or Area	Nature and Consequence of Marma	Consequential Prognosis
1	Nila Manya	High up in the neck on either side of the Kantha nadi (trachea)	4 Angula (7.5 cm)	Sira & Vaikalyakara	Loss of speech, defective voice, loss of taste
2	Matrika	Anterior external, post external jugular veins and common facial veins	4 Angula (7.5 cm)	Sira & Sadya pranahar	Immediate death
3	Krikatika	Junction of Head and Neck	1/2 Angula (0.93 cm)	Sandhi & Vaikalyakara	Instability of Neck and death
4	Vidhura	Below and behind the ear	1/2 Angula (0.93 cm)	Snayu, Sira & Vaikalyakara	Mookatwa (Deafness)
5	Phana	Both side of nasal passage & near the roof of the nose	1/2Angula (0.93 cm)	Sira & Vaikalyakara	Loss of sense of Smell
6	Apanga	Outer side of orbits and below the lateral end of the Bhru (eyebrow)	1/2Angula (0.93 cm)	Sira & Vaikalyakara	Andhatwa (Blindness or defective vision)
7	Avarta	Above and below the Bhru (eyebrow)	1/2Angula (0.93 cm)	Sandhi & Vaikalyakara	Andhatwa (Blindness or impaired vision)
8	Sankha	In between Karna (ear) and Lalata (forehead) and just above the termination of the superciliary arch	1/2Angula (0.93 cm)	Asthi & Sadya pranahara	Immediate death
9	Utkshepa	Above the Sankha (temple) and near the hairy margin of the scalp (parietal	1/2Angula (0.93 cm)	Snayu & ViShalyaghna	Keeps the person alive till it lodges over theses or if it comes out after suppuration but he cannot survive if the Shalya

		region on the scalp) on both the sides of the head			(foreign body) is extracted out by force immediately after injury
10	Sthapani	In between the Bhrus (eye brows or superciliary arches and underneath the bony vault)	1/2Angula (0.93 cm)	Sira & ViShalyaghna	Same as Utkshepa Marma
11	Simanta	Five structural Joints in the vault of skull	4 Angula (7.5 cm)	Sandhi & Kalantara pranahara	Unmada (insanity), Bhaya (Fear) and Chittanasa (Madness or lack of Consciousness) leading to death
12	Sringataka	Junction of the confluence of Siras (vein) providing nutrition to the Ghrana (nose), Shrotra (ear), Akshi (eyes) and Jivha (tongue)	4 Angula (7.5 cm)	Sira & Sadya pranahara	Immediate death
13	Adhipati	Inside the cranium superiorly at the confluence of Sira (vain). This point is just under the romabert (ringlet of the hair)	1/2Angula (0.93 cm)	Sandhi & Sadya pranahara	Immediate death

Table 4: Consequence and Patho-physiological changes resulting from trauma to specific Marma of abdomen along with their location and extent of area.

Sr. No.	Name of the Marma	Location	Extent or Area	Nature and Consequence of Marma	Consequential Prognosis
1	Guda	Attached to Sthulantra (Large intestine) i.e. anal region	4 Angula (7.5 cm)	Mamsa & Sadya pranahara	Immediate death
2	Vasti	Within the Kati pradesha (Pelvis) i.e. bladder	4 Angula (7.5 cm)	Snayu & Sadya pranahara	Immediate death except a wound which is formed during extraction of a calculus
3	Nabhi	In between Pakvashaya (Colon) and Amashaya (Stomach) i.e. Umbilicus	4 Angula (7.5 cm)	Sira & Sadya pranahara	Immediate death

Table 5: Consequence and Patho-physiological changes resulting from trauma to specific Marma of thorax along with their location and extent of area.

Sr. No.	Name of the Marma	Location	Extent or Area	Nature and Consequence of Marma	Consequential Prognosis
1	Hridaya	Superficially located in between Stana granthi (breast) and near the opening of the Stomach i.e. Heart	4 Angula (7.5 cm)	Sira & Sadya pranahara	Immediate death
2	Stanamula	Bilaterally two fingers below the Stana (breast)	2 Angula (3.75 cm)	Sira & Kalantara pranahara	Fills up the Kostha (thoracic cavity) with cough and proves to be fatal with troublesome cough & breathing
3	Stanarohita	Two fingers above the Chuchuka (nipples) of both the Stana Granthi	1/2 Angula (0.93 cm)	Sira & Kalantara pranahara	Fills the cavity with blood and ends in death due to cough and dyspnoea
4	Apalapa	Below the Amsakuta (Sholder joint) and above the sides or lateral aspect of chest (in the axilla)	1/2 Angula (0.93 cm)	Sira & Kalantara pranahara	Haemorrhage leads to result in pus formation becomes fatal
5	Apasthambha	Both the side of Ura (Chest)	1/2 Angula (0.93 cm)	Sira & Kalantara pranahara	Fills the chest with air and results in death due to cough and dyspnoea

Table 6: Consequence and Patho-physiological changes resulting from trauma to specific Marma of back along with their location and extent of area.

Sr. No.	Name of the Marma	Location	Extent or Area	Nature and Consequence of Marma	Consequential Prognosis
1	Katikataruna	Both the side of the Pristhavamsa (Vertebral column) corresponding to each Shronikasthi (Hip bone)	1/2 Angula (0.93 cm)	Asthi & Kalantara pranahara	Pallor, discoloration of skin due to hemorrhage or loss of blood
2	Kukundara	Both the side of the Pristhavamsa (Vertebral column) and the lateral sides of the outer part of Jaghanasthi (femur)	1/2 Angula (0.93 cm)	Sandhi & Vaikalyakara	Loss of sensation and movement in lower part of the body
3	Nitamba	Above Shroni kanda (Hip bone) which covers the Ashaya (Viscera) and connects the lateral part of Vertebral column	1/2 Angula (0.93 cm)	Asthi & Kalantara pranahara	Sosa (atrophy) in lower extremity with weakness leads to death
4	Parsvasandhi	Just at the middle of Janghanaparsva bhaga (Gluteus region) and joining the lower part of two flanks	1/2 Angula (0.93 cm)	Sira & Kalantara pranahara	Death due to collection of blood in Pelvic cavity
5	Brihati	Posteriorly both side of the Pristhavamsa (Vertebral column) at the level of Stanamula (Base of the breast)	1/2 Angula (0.93 cm)	Sira & Kalantara pranahara	Excessive bleeding results into death
6	Amsa Phalaka	In the upper part of the Pristha (back) near to the scapular region and on both the sides of vertebral column attached to Trika (Sacrum)	1/2 Angula (0.93 cm)	Asthi & Vaikalyakara	Sosa (Atrophy) of Bahu (Arm)
7	Amsa	In between the root of the arm and neck, joins the Amsapeetha (Scapular region) and Skandha (Shoulder) together	1/2 Angula (0.93 cm)	Snayu & Vaikalyakara	Stiffness in upper extremity produces loss of function to the arm

Importance of Marma Sharira in Surgical Practice

1. **Anatomical Precision:** Marma points often correspond to important anatomical structures such as major nerves, arteries, and organs. Understanding their location helps surgeons avoid iatrogenic injuries during invasive procedures.
2. **Trauma Management:** Ayurvedic literature categorizes marma points based on the severity of damage when injured—sadyah pranahara (immediately fatal), kalantara pranahara (fatal over time), vaikalyakara (causing deformity), etc. This categorization provides a foundation for understanding trauma severity, which remains relevant in emergency and trauma surgery.
3. **Surgical Safety and Planning:** Knowledge of marma locations can guide safer surgical approaches. For instance, while performing orthopedic or abdominal surgeries, avoiding vital marma areas reduces the risk of long-term complications or nerve damage.
4. **Basis for Regional Anesthesia:** Several marma points overlap with nerve plexuses and can be targeted for local or regional anesthesia, thereby enhancing pain management practices.

Modern Relevance of Marma Sharira

1. **Complement to Modern Anatomy:** Marma points often correspond with acupressure or acupuncture points, peripheral nerves, and vascular junctions. This makes them relevant in integrative medicine, combining traditional and modern anatomical insights.
2. **Minimally Invasive Surgery:** In the era of laparoscopic and robotic surgeries, precision is paramount. Avoiding marma points ensures reduced trauma and quicker recovery—principles that echo Ayurvedic wisdom.
3. **Pain Management & Rehabilitation:** Marma Chikitsa (therapy involving stimulation of marma points) is increasingly used in pain management, physiotherapy, and post-operative rehabilitation, similar to acupuncture and trigger point therapy.
4. **Holistic Patient Care:** Marma Sharira integrates the physical with the energetic and psychological, aligning well with modern holistic and patient-centered care models.
5. **Military and Sports Medicine:** Awareness of marma points is useful in managing battlefield injuries or sports trauma, where targeted injuries can lead to specific disabilities—knowledge that can guide protective gear design and trauma care.

Discussion: -

The body Marmas must be safeguarded from harm since damage to them might cause chronic discomfort, deformity, or even death. The effects of an injury are the same whether it happens directly to a Marma or even closer. Marmas are categorized realistically because in Marmaghata the location of the damage is given more weightage than the type of injury. The basic clues for the surgeon to continue are classification of Marma based on the effect of damage and measurement. To emphasize the significance of potential Marmasthana and its prevention during surgery, types and rules of incisions that must be taken have been emphasized during each procedure. An exceptional example of how to safeguard the Marmas is the concluding line of Ashmari Chikitsa, which mentions the importance of Ashtamarmas.

Conclusions: -

The Ayurvedic science of Marma is itself a treatise on Surgico-anatomical learning. The concept of Marma is a great contribution of Sushruta and should be treated as mirror of surgery as it has been mentioned 107 vital points in various parts of the body, which should be carefully dealt during surgery & should always be protected from injury, as the component of life or vital energy (prana) rest in them. A Marma injury leads in medical or surgical emergency with potentially lethal outcomes. Injury to these locations typically results in death since Soma, Maruta, Tejas, Satwa, Rajas, and Tamas, as well as Bhootatma, live in these Marma pradesha's. In Shalya tantra, understanding of Marma is essential and regarded as one-half of the surgical subjects. Therefore, surgical procedures to be performed very carefully or vigilantly after considering the measurement of the Marma's area, sign-symptoms and consequence prognosis, as injured even on margin of Marma leads to deformity or death. Marma Sharira, rooted in ancient Ayurvedic wisdom, is not only a

philosophical or traditional concept but also a practical anatomical guide relevant to modern surgical and clinical practice. Integrating marma knowledge into current medical education and surgical protocols can enhance precision, patient safety, and holistic healing.

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