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Review Article

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AN INSIGHT STORY OF NABHI MARMA

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ABSTRACT

Objective:- To explore the concept of *Nabhi Marma* in Ayurveda. Data Source: Sushruta Samhita along with Dalhana commentary accessed from NIIMH website. Ashtang Hrudava Sarvaangsundar commentary had been referred as data source. Review **Methods:-** Literary Review focus on each and every aspect of *Nabhi* Marma including its embryological and anatomical relevance from mainly Sushruta Samhita along with Ashtang Hrudaya also. Various modern Anatomy and embryology books have been referred to justify the correlation in today's era. Result:- Umbilicus does not fulfil all the criteria related to Nabhi Marma, neither it lies between Amashaya and Pakwashaya. It is not even Udargata. It is only a scar that is useful in

surface anatomy. The property of *Sira* i.e., *Saran* or direct relation with *Sira* is also not seen with this part. **Conclusion:-** The exact essence of *Nabhi Marma* which seers have mentioned in classics of Ayurveda has been explored and concluded as a core nutritional unit that lies in midgut area thus being in the center area of body and is physiologically associated with *Prana*, *Agni* abode to important aspect of *Nabhi Marma* being related to nutritional unit.

KEYWORDS: Anatomical, *Ayurveda*, Embryological, *Marma*, *Nabhi Marma*.

INTRODUCTION

Ayurveda is India's oldest traditional system of medicine which represents all dimensions and aspects of medicine. The *Marma* Science is another dynamic aspect of Ayurveda which holds tremendous value in maintaining health and curing disease. *Marmas* are known to be the vital areas of the body.^[1] These are the sites of Prana.^[2] Various *Marma* regions are described in Ayurveda texts along with their particular effect on both physical and mental

health. *Acharya Sushruta* had explained 107 *Marmas* in our body ^[3] at different locations and of different anthropometric measurement. Any injury to these *Marma* points leads to severe pain, disability in one or more body part, loss of function, loss of sensory innervation and sometimes death of person. The knowledge of *Marma* constitutes half of the knowledge of science of Surgery.^[4] Marma points are said to be the agglomeration of *Mansa*, *Sira*, *Snayu*, *Asthi* and *Sandhi* component.^[5] *Nabhi Marma* is one amongst the 107 *Marmas* of body. Its importance is well known by the fact that amongst the *Udargat Marmas*, only three *Marmas* have been mentioned and *Nabhi* is one amongst those three. Thus, due to its prime importance in *Marma* Science the literary aspect of *Nabhi Marma* should be analyzed properly to have a better understanding of *Nabhi Marma*. Now a days various research papers have mentioned that proper manipulation of *Marmas* can alter the flow of both physical and mental energy and can bring transformative changes within the body. So, in this paper an effort has been given to critically analyze and understand the exact essence of *Nabhi Marma* which seers have mentioned in Ayurveda.

MATERIAL AND METHOD

- Reviewing of classics of *Ayurveda* including relevant commentaries regarding the concept of *Nabhi Marma*.
- Review of all available literature related to modern Anatomy.
- Reviewing of internet materials, journals, periodicals and previous research papers related to this subject.

Ayurveda review

Acharya Sushruta and Acharya Vagbhatta have mentioned Nabhi Marma under the category of Udargata Marma. [6] It is located in between Amashaya and Pakwashaya. [7] It is a Sira Marma [8] of anthropometric measurement of Swapaanitala Pramana [9] or 4 Angula as per Acharya Dalhana. Prognostically, it has been kept under Sadyapranhara Marmas. [10] Any injury on Nabhi Marma leads to immediate death of patient or death within seven days of injury as per classics. [11] Acharya Vagbhatta in Ashtang Hrudaya has mentioned that on injury to Sira Marma there is continuous profuse bleeding which leads to Trishna, Brahm, Shwaas, Moha, Hikka and death of patient. [12] Nabhi Marma is one in number. [13] As this Marma is Sadyapranhara it is predominantly Agneya in nature. It has been mentioned that due to Aaghaat on Sadyapranhara Marma the functional aspect of Gyanendriyas is hampered and there is alteration in functioning of Manah and Buddhi. [14] Acharya Sushruta has also

stated that the diseases due to *Vata*, *Pitta* and *Kapha* i.e., *Nijvikara* if occurs in *Marmas* or depends on *Marma* area, they are not easily treatable and hence physician should put more effort in treating such *Krichrasadhya* diseases.^[15]

Modern anatomical review

The Abdomen is of big concern even in small kid. The statement "a slight blow will cause rupture of the intestines without injury to the skin" is attributed to Aristotle, and Hippocrates was the first to describe intestinal injury from penetrating trauma. [16] Any trauma to GIT can result in injury to stomach, small bowel, colon or rectum. Traumatic causes include blunt or penetrating trauma, such as gunshot wounds, stabbings, motor vehicle collisions, and crush injuries. [17] During war time there occurs greatest number of traumatic injuries to intestine and sort of injuries are mostly gunshot wounds and closed injuries due to impact of blast wave. Other than war, traffic accidents, falling from a height, strong compression are other causes of intestinal injury. Out of all closed abdominal injuries, 36% were due to closed intestinal injuries; while in 80% of cases, the small intestine was damaged, and in 20% only large intestine is affected. [16] In the clinical picture of acute injuries, abdominal pain of varying intensity prevails, vomiting, a rapid pulse (more than 100 in 1 min), a tension in the muscles of the abdomen, a sharp pain in palpation. [18] A violent force directly applied to the abdomen can crush the intestines between the external force and the spine. [16] This can cause nerve damage associated with injury to nearby organs. The small intestines damage due to trauma is acknowledged as third most common after liver and spleen.

DISCUSSION

The *Nabhi Marma* is located in between *Amashaya* and *Pakwashaya*, which is not locating the *marma* precisely rather giving a rough idea about its position. Moreover, *Amashaya* and *Pakwashaya* itself have deep meaning. Anything in body that is a raw material which needs further processing is called "*Aam*" and the site where it is present is called *Amashaya*. The processed material that is ready to be used by body is called "*Pakwa*" and its site of availability is called *Pakwashaya*. So, the processor in between that converts *Aam* to *Pakwa* is *Nabhi*.

Acharya Sushruta has kept Nabhi Marma under Udargata Marma. This proximity with Udara can take us closer to determine the relevant aspect of Aamashaya and Pakwashaya. As Udar is related to abdominal region, we can consider the foregut part as Amashaya and hind gut part as Pakwashaya. The midgut part that lies between Amashaya and Pakwashaya is

associated with *Nabhi Marma*. As in *udar* region no other part is associated with transformation of *Aam* to *Pakwa*, so this can only be the most probable explanation. *Agni* is employed to convert *Aam* into *Pakwa*. *Acharya Sushruta* has mentioned *Agni* as *Prana* in *Sharira Sthana* i.e., its presence is life and absence is death. *Sadyapranahara marmas* are *Agneya* in nature and it is mentioned that injury to these *Marmas* causes immediate death due to loss of *Agneya Guna*. Thus, *Sadyapranhara* nature of *Nabhi Marma* gives us a clue that it is related to *Agni*. Hence, any injury inflicted on this vital point will hampers the process of *Agni* i.e., the biophysical and biochemical changes essential for formation, growth, development and repair of tissues which ultimately lead to death.

Acharyas have kept Nabhi under Sira Marma category. Sushruta has not even mentioned Dhamani Marma although he has great knowledge of Dhamani and it is obvious that any trauma to Dhamani Marma will definitely lead to death as due to Dhaman (pulsation) the blood oozes out with more pressure as compared to Sira. So, it can also be thought in a way that Nabhi is associated with Sira functionally i.e., Saran occurs within Nabhi Marma. According to modern physiology, food is broken down in stomach into small particles and then forwarded to small intestine where maximum digestion and absorption of nutrients takes place. The small intestine makes digestive juices, which mixes with bile and pancreatic juice to complete the breakdown of proteins, carbohydrates and fats. Small intestine also absorbs water from bloodstream into GI tract to help break down of food and provide it a liquid medium to travel. In small intestine digested food stays for 4 hrs so that maximum nutrients are absorbed from it. We can explain this in a way that the Ahara rasa flows inside the gut in a smooth manner which can be corelated to property Saran. Hence, Nabhi Marma is kept under Sira Marma.

As mentioned in classics, it is not clear that the *Swapanitala* or 4 *Angula* size of *Nabhi Marma* is in terms of length, breadth or depth. This 4 *Angula* area behind umbilicus in depth and circumference comprise of 2nd to 4th part of duodenum and 2/5 of small intestine i.e., Jejunum, Ileum, root of mesentery can be the best probable explanation for this anthropometric dimension of *Nabhi Marma* which can be seen during cadaveric dissection.

The association of five components i.e, *Mansa, Sira, Snayu, Asthi* and *Sandhi* with *Nabhi Marma* can be explained as *Mansa* component in small intestine is two layers of smooth muscle that forms the small intestine. The outermost layer is the thin, longitudinal muscle that contracts, relaxes, shortens, and lengthens the gut allowing food to move in one direction.

The innermost layer is a thicker, circular muscle. [19] The Sira component being the functional aspect and corelation of property of Saran that occurs in small intestine. The Snayu component being the mesentery, which is a double fold of the peritoneum that anchors the small intestines to the back of the abdominal wall. [20] The Asthi component that coincides with Nabhi Marma is spine present behind the small intestine that is affected due to traumatic force on intestine. The Sandhi component corresponds not only to junction of bony joints but the junctional points within small intestine like duodenum, jejunum and ileum.

Nabhi Marma is one in number. This can be explained on basis of embryological development as all gut parts and their corelated structures are formed from a single tube and Nabhi Marma is a core unit that functionally helps in digestion. So, we can say that it is one in number.

Moreover, in review section we have seen that due to traumatic effect on Sadyapranhara Marma is associated with neurological symptoms like Moha, Brahm etc. which can be seen in midgut injury due to crushing of intestines between the traumatic force and the spine.

Umbilicus does not fulfil all the criteria related to Nabhi Marma, neither it lies between Amashaya and Pakwashaya. It is not even Udargata. It is only a scar that is useful in surface anatomy. The property of Sira i.e., Saran or direct relation with Sira is also not seen with this part. Hence Nabhi Marma does not corelate to Umbilicus. It is a functional area related to midgut region which lies behind umbilicus.

CONCLUSION

As per above discussion pertaining to every aspect from embryology to functional anatomy, it is noted that Nabhi Marma is a core nutritional unit that lies in midgut area thus being in the center area of body and is physiologically associated with Prana, Agni abode to important aspect of Nabhi Marma being related to nutritional unit. This nutritional unit corresponds mainly to midgut area as it is responsible for maximum absorption of nutrients from food material during digestion process and its injury is fatal thus, justifying to keep it under Marma.

Thus, we can conclude that umbilicus does not coincide with the term Nabhi Marma. It is only a window which pave the path towards Nabhi Marma which is a physio-anatomical core unit of nutrition lying in midgut.

REFERENCES

- 1. Williams M. A Sanskrit- English Dictionary, Edition Bharatiya Granth Niketan; New Delhi, 2007; 2: 791.
- 2. Narahari. Edited by Tripady I.D. Rajanighantu. Varanasi: Chaukhambha Krishnadas Academy, 586.
- 3. Sushruta Samhita, Sharirasthana, *Pratyekmarmanirdeshshariram*, 2020; 25: 6-3. Available from: http://niimh.nic.in/ebooks/esushruta
- 4. Sushruta Samhita, Sharirasthana, *Pratyekmarmanirdeshshariram*, 2020; 25: 6-33. Available from: http://niimh.nic.in/ebooks/esushruta
- 5. Sushruta Samhita, Sharirasthana, *Pratyekmarmanirdeshshariram*, 2020; 25; 6-15. Available from: http://niimh.nic.in/ebooks/esushruta
- 6. Mitra Jyotir, Edited by Dr Shivprasad Sharma; Ashtang Sangraha with Shashilekha Sanskrit commentary by Indu; Chowkhamba Sanskrit Series Office, ISBN: 81-7080-186-9, 7: 20-320.
- 7. Sushruta Samhita, Sharirasthana, *Pratyekmarmanirdeshshariram*, 2020; 25: 6-25. Available from: http://niimh.nic.in/ebooks/esushruta
- 8. Sushruta Samhita, Sharirasthana, *Pratyekmarmanirdeshshariram*, 2020; 25: 6-7. Available from: http://niimh.nic.in/ebooks/esushruta
- 9. Sushruta Samhita, Sharirasthana, *Pratyekmarmanirdeshshariram*, 2020; 25: 6-29. Available from: http://niimh.nic.in/ebooks/esushruta
- 10. Mitra Jyotir, Edited by Dr Shivprasad Sharma; Ashtang Sangraha with Shashilekha Sanskrit commentary by Indu; Chowkhamba Sanskrit Series Office, ISBN: 81-7080-186-9, 7, 56-324.
- 11. Kaviraj Atridev Gupt. Edited by Vaidya Yadunandan Upadhyaya. Ashatang Hrudaya. Varanasi: Chaukhamba Surbharati Prakashana: Reprint year Sharir Sthan, 2017; 4: 50.
- 12. Shastri Ambikadutta, Sushruta Samhita, Ayurveda Tattva Sandipika Hindi commentary, Chaukhamba Sanskrit Sansthan Varanasi reprint edition Sharir Sthana, chapter, Dalhana commentary, 2010; 6: 4.
- 13. Shastri Ambikadutta, Sushruta Samhita, Ayurveda Tattva Sandipika Hindi commentary, Chaukhamba Sanskrit Sansthan Varanasi reprint edition Sharir Sthana, 2010; 6: 38-58.
- 14. Shastri Ambikadutta, Sushruta Samhita, Ayurveda Tattva Sandipika Hindi commentary, Chaukhamba Sanskrit Sansthan Varanasi reprint edition Sharir Sthana, chapter, 2010; 6: 44-58.

- 15. [Internet] https://clinicalgate.com/small-bowel-injury/
- 16. Revell MA, Pugh MA, McGhee M. Gastrointestinal Traumatic Injuries: Gastrointestinal Perforation. Crit Care Nurs Clin North Am, 2018; 30(1): 157-166. doi: 10.1016/j.cnc.2017.10.014. Epub 2017 Dec 1. PMID: 29413211.
- 17. Injuries of the intestine: causes, symptoms, diagnosis, treatment by Alexey Portnov, medical expert [https://iliveok.com/health/injuries-intestine-causes-symptoms-diagnosis-treatment_76375i15938.html]
- 18. Collins JT, Nguyen A, Badireddy M. Anatomy, Abdomen and Pelvis, Small Intestine. [Updated 2020 Aug 10]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021Jan, Available from: https://www.ncbi.nlm.nih.gov/books/NBK459366/
- 19. Hundt M, Wu CY, Young M. Stat Pearls [Internet]. StatPearls Publishing; Treasure Island (FL): Aug Anatomy, Abdomen and Pelvis, Biliary Ducts. [PubMed], 2020; 11.