A RELATIVE STUDY OF INDRABASTI MARMA WITH ITS APPLIED ASPECT: A REVIEW ARTICLE

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ABSTRACT

Marma is one of the important subjects from science of Ayurveda. The concept of Marma has been analyzed with different views, techniques etc to enhance the value of this discipline. It came into lime light due to occurrence of emergencies during the war period where opponents used to hit over such vital points that lead to fatal consequences (death). Our human body consists of many vital points (Marma sthana) which need to be protected from external stimuli in form of injury or pathology. The knowledge in this reference (Marma Sharir) is significant for anatomical, surgical point of view. Any kind of trauma, accident may lead to such hazardous impact on individual’s health, as they are the sites of Prana. Here in this article a specific Marma has been considered “Indrabasti” so as to relate it in upper & lower limbs with clinical view. The article has an objective of comparing the concept of Indrabasti Marma with modern anatomical structures located in its vicinity. This work is related with the traumatological concept of Marma with signs & symptoms on any injury to that particular.

Keywords: Marma, Indrabasti, Extremities, Applied, Trauma

INTRODUCTION

The science of Ayurveda consists of many branches which aim for healthy approach to life. Acharya Sushruta devoted his views for the discipline of Shalya Tantra or Rachna Sharir, where he mentioned anatomy of human body, with surgical procedures and some valuable theories like of Marma Sharir¹. The word Marma was discovered centuries ago by scholars of Ayurveda as ‘anatomical site where conglomeration of Mamsa, Sira, Snayu, Sandhi and Asthi’ takes place². Some opined to have that site of Chetana or where Prana resides.³ Sir Monier Williams described the etymology as mortal point, vulnerable, any open or exposed, sensitive part of the body, vital organs which requires to be kept concealed, painful etc⁴. A total of 107 Marma has been classified into groups based on structure, regional, dimension, prognosis etc. In this work, Indrabasti Marma has been considered to have an anatomical, surgical view in composition from both Shakha (extremities). Both limbs have their respective importance in body for work like upper limb performs actions to hold, write, grasp and many more whereas lower limb helps in locomotion, balancing, standing, etc. Hasta & Pada has been in-
cluded in Karmendriya as per Acharya Charaka\(^{[5]}\). A total of 11 Marma in each Shakha has been illustrated (with a total of 44 in total limbs). The Indrabasti Marma in both limbs has been acknowledged as calf of leg (lower limb) & forearm (upper limb). Structurally it is Mamsa Marma with a prognosis as of Kalantara-pranahar Marma, 4 in number (1 for each limb) with ½ Anguli Pramana measurements \(^{[6]}\). Any kind of injury to this Marma leads to death due to hemorrhage within a time period of 15 days. Following tables illustrates the relative study of Marma in two limbs along with its structural classification as per anatomy.

**Table 1:** demonstrating Indrabasti Marma in upper limb

<table>
<thead>
<tr>
<th>MAMSA</th>
<th>SIRA</th>
<th>SNAYU</th>
<th>ASTHI</th>
<th>SANDHI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mostly flexor group of muscles (superficial &amp; deep), flexor digitorum profundus, flexor digitorum superficialis etc.</td>
<td>Radial, ulnar, arteries with branches &amp; venous drainage also. Ulnar, median &amp; radial nerve with branches</td>
<td>Bicipital aponeurosis, interosseous membrane</td>
<td>Radius Ulna</td>
<td>Joint between Radius &amp; Ulna</td>
</tr>
</tbody>
</table>

**Table 2:** demonstrating Indrabasti Marma in lower limb

<table>
<thead>
<tr>
<th>MAMSA</th>
<th>SIRA</th>
<th>SNAYU</th>
<th>ASTHI</th>
<th>SANDHI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gastrocnemius (2 heads)</td>
<td>Small saphaneous vein, sural nerve Posterior tibial artery &amp; Tibial nerve</td>
<td>Plantaris &amp; Interosseus membrane</td>
<td>Tibia Fibula</td>
<td>Synchondrial joint between tibia &amp; fibula (Tibiofibular joint)</td>
</tr>
<tr>
<td>Soleus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The above observation related with Marma has been elucidated on the basis of literary content from both classical as well as contemporary sciences. The associated structure is studied thoroughly and related with structures viewed by cadaveric dissection also.

**DISCUSSION**

From the above literature about the Marma we can discuss on some applied points which relate with this Indrabasti Marma in Shakha (extremities). Marma are vital points in our body which constitute Mamsa, Asthi, Dhamani, Snayu, Sira and Sandhi meet together. Both the extremities comprises of muscles in two layers (superficial – deep), arterial and venous channels along with the nerves. Any type of injury to muscles, nerves can tolerate up to 6 hours of ischemia. Then fibrous scar of tissue replaced by necrosis, which leads to shortening of muscle, a flexion deformity. In upper limb any injury may lead to ischemic compartment syndrome (Volkmann’s contraction), and due to necrosis of muscle fibers are destroyed & activities are hindered \(^{[7]}\). In lower limb, an injury to back of leg will result in profuse bleeding because presence of posterior tibial vessels. If muscles are affected, myositis may take place & muscle debridement due to bacteria may prevail in that region. Under debridement of skeletal muscle is to risk infection by anaerobic bacteria particularly clostridium spreading myositis & loss of limb may occur \(^{[8]}\). This myositis may lead to associated pain, swelling, edema, & toxemia, usually develops within 48 hours and it further depresses the adrenals causing hypotension and sudden death \(^{[9]}\).

Here it is important to note that, in lower limb “soleus” is considered to be peripheral pump as it acts as deep veins. The calf pump is more enhanced deep fascia which invests muscle like an elastic stocking \(^{[10]}\). The piercing or penetrating injuries mostly puncture muscles & vessels which lead to profuse bleeding / hemorrhage which lead to condition of shock. The management of venous injury is more complex than the management of arterial trauma.
because injuries to veins are less evident than those to arteries in addition the vein is less extensible & cannot be mobilized as much for primary anastomosis compared to its arterial counterpart and such veins are unusually being ligated\textsuperscript{[11]}.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{marma_location.png}
\caption{1.1 showing Marma location in lower extremity}
\end{figure}

**CONCLUSION**

After above discussion, similar symptoms related to both extremities are described either on basis of structure, on basis of injury, prognosis etc. they relate to each other more commonly. Some of the conditions can be due to profuse blood loss, tourniquet is tied, and immediate treatment or intervention is required to save the patient from further consequences. To conclude this work, it can be said that the Marma is Mamsa Marma structurally along with dominancy of Sira, at this site and which relate with the Vidha Lakshana (blood loss and death). Following points can be considered as:

- **Marma Sthana-** between jangha (calf) & Parshini (heel) (lower limb) and upper limb indicates between middle of Agrabahu (forearm).
- Structurally it is Mamsa Marma; due to presence of musculature which are dominant in the region. But actively the Sira in the region also dominates as per signs observed.
- Injury leads to profuse blood loss which leads to fatal consequences.
- The vascular injury here along with damage to muscles, threatens life either due to loss of excessive blood or secondary hemorrhage from the disrupted artery or vein.\textsuperscript{[12]}

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