

# AN EXPLORATORY STUDY ON MANUSCRIPT TITLED “*DĒHATTILĒ MAṚMA VIPARAM*”

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## Abstract

Manuscripts are the handwritten documents which are available all over the world in different scripts and materials. Still many unpublished Ayurvedic manuscripts are available throughout India. Manuscripts are valuable treasures of knowledge which should be explored. Apart from the great tradition (Classical tradition) of *Ayurveda*, local or regional traditions developed substantially in different fields of *Āyurveda* among which *Maṛma* was an important one. The manuscript titled *Dēhattilē Maṛma Viparam* is obtained from Samhita, Sanskrit and Siddhanta department of Vaidyaratnam P.S. Varier Ayurveda College, Kottakkal. The study was done to make the knowledge contained in the unpublished manuscript available to the public and will become a new horizon of treatment and further research.

The aim of the study was to enrich Āyurvedic knowledge base with special reference to *Maṛma* tradition through exploring the manuscripts. The objectives of the study were to make lower criticism on manuscript titled “*Dēhattilē Maṛma Viparam*”. Many drugs mentioned in the manuscript were identified with the help of drug experts. Details regarding the manuscript was identified by discussion with manuscript experts and *maṛma* experts. Period of the manuscript and factors related to origin were identified from literary evidences in the manuscripts. Exploration of the manuscript identified *maṛma* different from that of classical books. It also revealed treatment for injury of *maṛma* with use of drugs. New formulations were also explored in the manuscript.

**Keywords** *Manuscript, Maṛma, Dēhattilē Maṛma Viparam.*

## Introduction

*Adhyāyana*, *Adhyāpana* and *tadvidya sambhaṣa* represent three essential forms of knowledge acquisition. This work highlights the significance of studying medical manuscriptology. Discussion serves as a foundation for these elements, with culture and technology playing a crucial role in the modern context. Manuscripts serve as vital links in the advancement of regional and global knowledge, whether through technological means or the transmission of information. Many of these texts were physically reproduced by scribes to preserve them as originals deteriorated, and these copies were further replicated for future generations. The dedication of ancient scholars to maintaining these texts underscores the importance of their preservation.

The aim of the study is to enrich Ayurvedic knowledge base with special reference to *Maṛma* tradition through exploring the manuscripts. Objectives of the study are to make lower criticism on manuscript titled “*Dehattile Maṛma Viparam*”

The manuscript for this study was sourced from the manuscript library of the Samhita, Sanskrit, and Siddhanta department at Vaidyaratnam P.S. Varier Ayurveda College in Kottakkal. It is composed of palm leaves, consisting of 15 folios, with each folio averaging 7 to 8 lines and containing approximately 23 to 25 words.

The manuscript provides a detailed account of *maṛma*, including its location, dimensions, and characteristics of injuries. It also outlines various treatment methods and practices. The content is presented

in archaic Malayalam, with measurements and timeframes reflecting historical terminology. Additionally, it discusses various therapeutic approaches and yogic techniques.

### Methods and stages in Ayurveda Manuscriptology

In Ayurveda, a wealth of knowledge remains concealed within ancient handwritten texts. This exploration focuses on the manuscript titled 'Dēhattilē Maṛma Viparam'. The research was conducted through a two-step process involving transcription and translation. In Ayurvedic studies, the Samhita is typically analyzed progressively according to the student's comprehension, starting with each line followed by its accurate interpretation. This methodology has been applied here, where each line is read, transcribed, and subsequently translated into English.

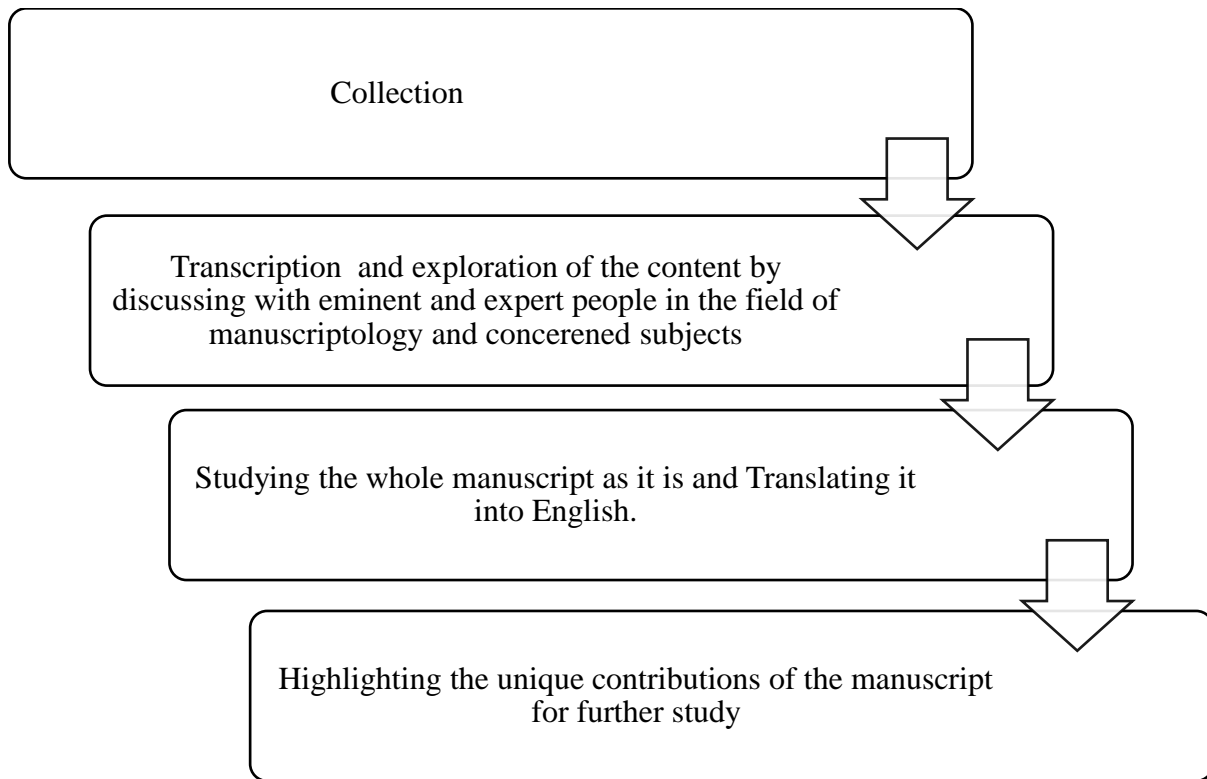


Figure 1 – Steps followed in Manuscript exploration of “Dehattile Maṛma Viparam”

The manuscript's content is reviewed in collaboration with distinguished scholars specializing in manuscriptology, *Maṛma*, and *Dravyaguṇaviijnana*. Initially, lemon grass oil is used to clean the manuscript, enhancing the clarity of the text for easier reading. Each letter and line of the script is meticulously examined and verified by three manuscript reading specialists to ensure accuracy. The translation process involves collaboration with renowned experts in Ayurveda, Malayalam, and English, facilitating a conversion to English that makes the manuscript's concepts accessible to a broader audience. The identification of plants referenced in the manuscripts is conducted with the assistance of *Dravya guṇa* specialists from various regions. Additionally, literary terms are clarified with the help of Malayalam language experts, while discussions on *maṛma* terminology are held with specialists in that field.

### Discussion

#### Title of the manuscript

The manuscript titled 'Dēhattilē Maṛma Viparam' is inscribed on the wooden cover of a document sourced from the Department of Samhita, Sanskrit, and Siddhanta at Vaidyaratnam P.S. Varier Ayurveda College Kottakkal. However, there is no mention of this title within the manuscript itself, suggesting it may not be a formal textbook, but rather a set of lecture notes or personal writings by the author. Upon reviewing the contents, it is evident that the manuscript discusses the concept of *maṛma*, the treatment of *maṛma abhighāta*, and various medicinal formulations [*yogas*] for these conditions. The term '*viparam*' is a colloquial Tamil word meaning information. Ultimately, the manuscript appears to be divided into two sections: the first

focusing on *marma* and the second on specific *yogas*, leading to the conclusion that the title pertains to the subject of *marma*.

### Origin of the manuscript

The manuscript's origin remains unclear, lacking direct references. However, an analysis of its content led to discussions with subject matter experts, who proposed potential origins. This evidence serves as indirect references to the manuscript's background. Various locations were explored to gather supporting evidence, revealing that the manuscript focuses on *marma chikitsa*, a practice within the *kalari* system. Interviews with *kalari* masters provided further insights into the medicinal practices involved. The manuscript was sourced from Paroli mana near Thrissur, where additional evidence was also collected. Notably, the local names of certain drugs, such as *Perukilam*, suggest a geographical link to central Kerala. Collectively, these findings indicate that the manuscript's origin likely lies between central and southern Kerala, specifically in the Thrissur to Kottayam region.

### Author

The manuscript's internal and external references provide insights into the author's identity. Internal references, which are found within the manuscript, illuminate aspects of the author, while external references pertain to mentions of the author in other works. Internal evidence can be categorized into direct and indirect references; direct references explicitly name the author, whereas indirect references suggest the author's credibility, expertise, social background, and beliefs. This manuscript lacks both direct and external references, making it impossible to ascertain the author's identity. Many texts within the *marma* tradition similarly omit authorial details, and this manuscript adheres to that pattern. However, the use of archaic Malayalam and colloquial terms indicates that the author may not be proficient in the language. The conversational writing style suggests an informal approach, and the manuscript's opening praise of Lord *Ganapati* implies the author's devotion or reflects the prevailing social norms of the time. Additionally, the inclusion of specific measurements indicates the author's practical knowledge, although the subject matter lacks clarity regarding the measurements and the precise location of the *marma*.

### Period

The manuscript lacks a direct date reference, but its period can be inferred through indirect clues. It is written in an archaic form of Malayalam characterized by short letters, typical of the 18th to 19th centuries. The measurements cited align with those used during this timeframe, and the manuscript's style suggests it belongs to the same era, resembling legal documents from that period. Expert consultations support this dating, and colloquial language appears throughout the verses. Linguistic analysis confirms its association with the 18th to 19th century. The manuscript's provenance can be traced to Thrissur, where it was obtained. Linguistic elements, such as terms like *teykka*, *kodappan*, and *perumkurumba*, indicate its origin from central Kerala, particularly around Thrissur, extending to the southwestern regions like Kottayam. Additionally, the medicinal substances referenced are predominantly found in areas from central to southern Kerala.

### Language

The manuscript employs Malayalam, Tamil, and Sanskrit, with only a limited number of Tamil and Sanskrit words present. The Malayalam used consists primarily of short letters that were common in the 18th and 19th centuries, before the introduction of the new script. The inclusion of certain Sanskrit and Tamil terms suggests the author's lack of proficiency in these languages. It appears that the author is not a linguistic expert, possessing a strong familiarity with Malayalam while having only a basic understanding of the others. Additionally, the manuscript features numbers written in their traditional form, along with numerous colloquial expressions.

### Style

The manuscript is organized in prose format, typically starting with a sentence outlining the author's intended description. However, this particular manuscript lacks such introductory descriptions, suggesting it is not a conventional textbook or treatise. It appears to be a copied version, lecture notes, or study materials from the author. The content details each *marma*, including its anatomical position and measurements, as well as treatment methods for *marma* injuries. A thorough reading reveals the presence of unique *yogas*

(formulations) that differ from classical preparations, alongside some novel formulations. Additionally, two distinct handwriting styles are evident, particularly in the last two folios, which may have been contributed by another individual or possibly by the author himself.

### Materials of inscription

The experts indicate that it was inscribed using a metallic stylus, a common practice in the 18th and 19th centuries, and it is characterized by a distinctive writing style.

### Material

The manuscript is determined to be composed of palm leaves based on consultations with experts. Traditionally, manuscripts are crafted from materials such as palm leaves, paper, linen, silk, and bamboo, with palm leaves being the predominant choice during the 18th and 19th centuries. In Kerala, palm leaves have been commonly utilized for recording notes.

### Number of folios

The manuscript consists of 15 folios, with an average of 23 words per line. Twelve of these folios focus on *marma* concepts, while the remaining folios address *yogas*, which diverge from the primary subject of the manuscript. Additionally, the presence of two distinct scribes suggests that the manuscript covers two separate topics in total.

### Complete / incomplete

The manuscript provides an incomplete account of the *marma*, with only certain aspects discussed in detail. Several descriptions of *marmas* are absent from the text. In the latter part, the manuscript addresses the formulations or *yogas* employed for treatment, which differ from those found in classical texts. Additionally, some details regarding specific *marmas* are lacking, and the manuscript concludes abruptly without a closing verse.

### Intact / damaged

The manuscript is preserved in its entirety, with all folios being legible. This was confirmed after applying lemongrass oil, revealing that all fifteen folios remain undamaged.

### Colophon

There is no evidence of that in the folios; however, some colophons indicating page numbers are present.

### Opening / closing verses

The majority of manuscripts typically feature both opening and closing verses; however, this particular manuscript contains only an opening verse. This verse serves as a form of worship to Lord *Gaṇapati* and reflects the author's religious beliefs. Notably, there is an absence of a closing verse in this manuscript.

### Features of Manuscript

The manuscript titled *Dēhattilē Maṛma Viparaṁ* focuses on the concept of *marma*, detailing its anatomical positions, characteristics, and treatment for injuries. It appears to serve as lecture notes or study material, as indicated by its style and organization, yet it lacks a clear discussion of the subject matter. While the manuscript provides information on the number and anatomical positions of *marma*, it omits precise locations and some measurements. The treatment approaches described seem to pertain to external or minor injuries. Additionally, the presence of two types of scribal writing suggests that some folios may have been added later, either by the author or another individual. The final four folios diverge from the main topic, discussing various formulations used in treatment, including several new formulations.

### Number of *marma*

The manuscript discusses a total of 107 *marma*. Acarya Caraka has identified only three as generally fatal. In contrast, Suśruta Acarya provides a detailed account of all 107 *marma*, which is also elaborated in *Aṣṭāṅga Hṛdaya*. The focus in *Siddha* and *kaḷari* traditions is on *Varṇam*, which shares similarities with the concept of *Marma*. *Siddha* texts mention 108 *marma* points, which align closely with those described in *Suśruta Samhita*, including their positions and classifications. The dependencies of *marmas* are categorized into four types: *maṁsa*, *rakta*, *śñāyu*, and *dhamanī*, whereas *Suśruta Samhita* identifies five dependencies. The

manuscript omits the term *sirā*, suggesting that most *sirā marṃas* fall under the *Rakta marṃa* category. The distribution of *marṃas* is consistent with Suśruta Samhita, occurring in seven regions: hands, legs, abdomen, chest, cervical to sacral region, neck, and head. Specifically, there are eleven *marṃas* in each leg, the same in both arms, three in the abdomen, nine in the chest, fourteen in the back, twelve in the neck, and twenty-five in the head. The prognostic classification of *marṃas* in the manuscript is notably precise, although it lacks a numerical classification. Some experts believe that the manuscript's approach towards *marṃas* is primarily intended for therapeutic purposes.

### **Anupānam**

*Anupānam* refers to substances consumed alongside or after the intake of medicine or food, enhancing the effectiveness of the treatment and alleviating ailments. The manuscript identifies approximately seven types of *anupāna*. Among these, *Neyy and Cukku* are the least utilized, appearing only once, while sugar (*Pañcasara*) is the most frequently employed adjuvant, found in around 15 formulations. Each adjuvant serves to boost the efficacy of the medications. Given that *marṃa abhigāta* conditions are primarily associated with *vata*, *Neyyu and Cukku* are specifically used to mitigate *vata*-related issues. Additionally, *Pañcasara* enhances the taste of the preparations, with the primary *anupānam* being predominantly *vata*-reducing.

### **Date and time**

The date and time referenced in the manuscript reflect the historical system in use during that era, providing insight into both the author's time period and the manuscript's age. These temporal markers are significant for understanding the critical phases of *marṃa* injuries, the duration needed for medicinal preparation, and the time required for the medicine to take effect. Through these details, we can evaluate the author's practical skills in treating *marṃa* and their proficiency in medicine preparation. Overall, these indicators suggest that the author is adept at both treating *marṃa* and manufacturing medicines, while also highlighting the manuscript's historical context.

### **Measurements**

The measurements utilized are from an outdated system, reflecting the era of the author. The author's use of these measurements in the preparation of medicine demonstrates their practical skills and highlights the measurement standards of that time.

### **Drava Dravya**

These substances are utilized for effectively mixing and preparing medicines, employing various liquid media. The manuscript references approximately eight different liquid mediums. *Drava dravyas* are employed to formulate medicines for *dhāra*, external applications like *lepa*, and for creating decoctions. Breast milk is the primary liquid medium used, known for its properties that balance *vāta* and *pitta*. In cases of *marṃa abhigāta*, which aggravates *vāta*, these preparations help mitigate the injury to *marṃa*. Most of the liquids used possess qualities that alleviate either *vāta* or *pitta*, highlighting the *vāta* imbalance associated with *marṃa abhigāta*.

### **Animal Products and Mineral drugs**

The manuscript refers to seven distinct animal products, primarily utilized for external applications. Among these, honey stands out as the most commonly employed, recognized for its *vṛana śodana saṁdāna* properties. The author equates *marṃa abhigāta* with *vṛana*, justifying the use of honey for treatment. Additionally, the text includes seven mineral drugs, also intended for external use, reflecting the author's expertise in their application.

### **Procedures and Preparations**

Five procedures and seven preparations are referenced, though specific details for each procedure are absent, leaving only their names visible. The procedure most commonly utilized is *dhāra*, while *kaṣāyam* is the most frequently mentioned preparation. *Jalūkaavacarana* is noted in relation to an injury to the *koppara marṃa*, but further details are lacking. Additionally, the preparation of medicine using the *damaru yantra vidhi* is included, along with several *satva* preparations. Collectively, these elements reflect the medical practices that were prevalent during that era.

## Yogas

The manuscript refers to fourteen general *yogas*, with some, such as *triphala kaṣāya*, serving multiple purposes. While only the names of these formulations are provided, none of them in classical texts specify indications for *maṛmaabhiḡāta*. Instead, they are suggested based on the symptoms of injury to *maṛma*. This highlights the author's practical expertise in addressing *maṛma abhiḡāta*. Additionally, the manuscript includes twelve specific formulations, with unique preparations like *Karim koḷi poṭi*, *Karim koḷi Neyy*, *Karim koḷi kaṣāyam*, *koyima gulika*, *Paṇduravaṭakam*, and *Śaśaghṛta* being exclusive to it. Some formulations, such as *Sahacarādi kaṣāyam*, *Amṛapallavādi kaṣāyam*, and *Saptasāram kaṣāyam*, align with those found in classical texts, while *Punaṛnavādi kaṣāyam* and *Candanādi kaṣāyam* differ from classical formulations.

## Plant list and Plant parts

There are 157 plants referenced in the manuscript, with some being mentioned multiple times. These plants are primarily utilized for treating injuries to vital areas and are predominantly *vāta* alleviating. Most of the plants listed in the manuscript are easily accessible, enhancing the practical use of these medicinal preparations. Medicinal preparations for treating *maṛma* injuries, as outlined in the manuscript, utilize various parts of plants. Specifically, thirteen distinct plant components are employed, including leaves, tubers, seeds, bark, fruits, tender leaves, fruit pulp, *satva*, fruit covers, juices, flower buds, stalks, and roots. These plant parts align with traditional practices and the manuscript highlights the use of different parts from the same plants in the formulation of these medicines.

## Maṛma in detail

### Talahṛd

This *maṛma* is located at the intersection of the hand and leg, measuring approximately  $\frac{1}{2}$  *aṅgula* in length and is dependent on muscle tissue. Injury to this area can result in sensory loss, hemorrhage, fever, and tremors. It bears resemblance to the *Talahṛd* described in *Suśruta Samhita* and is also referred to as *maṁsa maṛma*. Anatomically, it aligns with the middle toe, although the symptoms of injury differ significantly from those documented in the texts, with pain potentially leading to death being a notable symptom. The similarity primarily lies in the nomenclature of the *maṛma*.

### Kṣipra

*Maṛma* is located at the junction of the index finger and thumb. An injury to this area can lead to pain in the nerve root, a burning sensation, and headaches. It is analogous to *Kṣipra* as described in the *Suśruta Samhita*, which is found between the big toe and the adjacent toe. Convulsions may indicate a severe injury, and while the original manuscript does not specify the measurements or dependencies of the *maṛma*, the *Suśruta Samhita* states it measures  $\frac{1}{2}$  *aṅgula* and is classified as *śāyū maṛma*. If untreated, death may occur within approximately 5 - 6 hours.

### Snaayu Aasu

It is located half a finger length above *Kṣipra maṛma* and is classified as *śāyū asrayam*, measuring one finger in length. Any damage to this area can lead to pain, impaired hand movements, tremors, and challenges in sitting and walking. Its position is analogous to *Kūrcca* as described in the *Suśruta Samhita*, which is situated above *Kṣipra* and measures four *aṅgula*. *Kūrcca* is also categorized as *śāyū maṛma* in the same text..

### Melkūrcaciratta

The position is located above *Kūrcca* and below the joint, determined by the *śāyū*, measuring approximately one finger's length. An injury in this area can lead to tremors, pain, swelling, inflammation, and challenges in walking and sitting. It is analogous to *Kūrccasira*, found beneath the ankle joint, also measuring 1 *aṅgula* in length, as noted in the manuscript. This area is classified as a *śāyū maṛma*, with injury symptoms including pain and swelling, which align with certain symptoms described in the *Samhita*.

### Vivīta

It is located two finger widths above the wrist joint. An injury to this area may result in incoherent speech and potential loss of consciousness. This can be likened to the *Indravasti* described in the *Suśruta Samhita*.

Measuring half an *aṅgula* in length, it is classified as a *maṃsa maṛma*. Damage to this *maṛma* can lead to fatal blood loss.

### *Gulpha*

The injury occurs in the calf area, leading to symptoms such as aching pain, a burning sensation, fever, difficulty walking, and fatigue. This region is analogous to *Íṇḍravasti*, located centrally in the calf, measuring half *aṅgula* in length and classified as a *maṃsa maṛma*. There is limited information regarding the *Gulpha* *maṛma* in existing manuscripts.

### *Maṇibaṇḍha*

It is located in the thigh and measures approximately two finger widths. In the event of an injury, symptoms may include a burning sensation, fever, aching pain, and fatigue, indicating an aggravation of *vāta*. Signs of *vāta* vitiation may also be observed. This region is analogous to the *Ūrvī maṛma* described in the *Suśruta Samhita*, which is positioned centrally in the thigh but is only one *aṅgula* in length and classified as a *sirā maṛma*. Damage to this area can lead to muscle wasting due to blood loss.

### *Arupāsti*

The location is four fingers above the wrist joint. An injury to this *maṛma* can result in significant blood loss, potentially leading to death. Information on this *maṛma* is limited, but it can be likened to *Íṇḍravasti*, as there are no other *maṛmas* in that area.

### *Jānupovi*

Located beneath the calf area, any injury to *Jānupovi* results in pain accompanied by swelling and fatigue. It is likened to *Jānu* as described in the *Suśruta Samhita*, where *Jānu* measures approximately 3 *aṅgula*, and an injury to it can lead to lameness. The comparison between *Jānupovi* and *Jānu* is made due to their close anatomical position. However, the manuscript provides limited details regarding *Jānupovi*.

### *Íṇḍravasti*

It is located between the knee joint and the ankle joint, relying on the *maṃsa dhātu*. Its length measures half a finger. An injury to this region can result in fatal blood loss. The primary symptom is a loss of sensory function. This condition is likened to *Íṇḍravasti* as described in the *Suśruta Samhita*, with the similarity in symptoms serving as the foundation for this comparison.

### *Nātāni*

The region situated two finger widths below the knee joint is crucial, as injuries in this area can lead to swelling, pain, and impaired blood circulation. This region is comparable to *Íṇḍravasti* due to its proximity in anatomy. Effective treatment options for injuries in this area are also available.

### *Āniyetti*

The critical point known as *Āniyetti* is located three finger breadths above the knee joint and is influenced by the *rakta dhātu*. This point measures half a finger in length. An injury to this area can result in pain, challenges in sitting, and difficulties in lying down. This point can be likened to *Ānī*, as both share similarities in their location, characteristics of injury, and their interdependence.

### *Ūrvī*

It is a *rakta maṛma* is located one finger's length above *Āniyetti* and measures the same in length. An injury to this area can result in significant blood loss, potentially leading to death. Symptoms include severe pain, leg shortening, abnormal movement, elevated body temperature, fainting, and muscle contractions. If bleeding is not controlled, persistent pain will occur, ultimately resulting in death from blood loss. This *maṛma* is analogous to the *Ūrvī maṛma* described in the *Suśruta Samhita* and is positioned in the middle of the thigh, approximately one *aṅgula* in size, classified as a *sirā maṛma*. Damage to this area can lead to muscle wasting due to hemorrhage.

### *Lohithākṣa*

In the hip area, the location is influenced by *Rakta dhātu* and measures six fingers in length. In the event of an injury, symptoms such as blood loss, fainting, confusion, and hiccups may occur, indicating a high risk of mortality if all these symptoms manifest. This region is analogous to *Lohithākṣa*, located above the *Ūrvī maṛma*, beneath the groin, and at the base of the thigh, measuring half an *aṅgula*. As a *sirā maṛma*, any injury to this area can lead to atrophy or thinning due to significant blood loss..

### *Tuvethipe*

It is positioned one finger's length above *Lohithākṣa*, with limited references available.

### *Kakṣaasṛaya*

The measurement is approximately one finger's breadth above *Tuvethipe*, contingent upon the *rakta dhātu*. This distance is roughly equivalent to one finger's length. Any injury in this area may result in a weakening of the associated organs, potentially leading to symptoms such as fainting and respiratory difficulties, which could culminate in death. This region is likened to *Kakṣadara*, located between the groin and scrotum, due to their positional similarities.

### *Viṭṭrika*

In the inguinal area, an injury can lead to difficulties in sexual intercourse, overall body weakness, and diminished leg strength. This condition is likened to *Viṭapa*, which is also located in the inguinal region, highlighting the similarities in their anatomical positions..

### *Kakṣa*

The presence of this element in the hand is significant, as any injury could hinder the ability to raise the hands. Limited information is available regarding the *maṛma*, and no comparisons have been drawn with the *Suśruta Samhita*.

### *Antira*

The anatomical structure is located three fingers above the anus and is associated with the *Dhamanī*. Its length is approximately one finger. This channel is regarded as one of the largest in the body. An injury to this area can result in immediate death, with symptoms including blood oozing, fainting, and ultimately fatality. There is no comparison made with the *Suśruta Samhita*.

### *Adiye*

The area above the *Antira* is significant; any injury to this region may result in the body bending like a bow, the urine turning blue, and symptoms such as bleeding and emaciation. This condition is analogous to the *Guda maṛma* described in *Suśruta*.

### *Tapporu*

Located just beneath the *Adiye* is another critical area known as *Tapporu*, which is oriented downward and measures approximately the length of one finger. An injury to this region can result in immediate death.

### *Nādi*

Above the *Tapporu maṛma*, in the umbilical region and lower abdomen, lies another crucial point known as *Nādi maṛma*, which is reliant on *rakta dhātu* and measures approximately one finger's length. An injury to this area can result in bleeding disorders, potentially leading to death. Symptoms associated with such injuries include seizures, fainting, and intense thirst. *Nādi maṛma* is compared to *Nābhi maṛma*, located between the stomach and large intestine, which measures about four *aṅgula*. This comparison is based on their positional relationship and the symptoms arising from injuries to these *maṛmas*.

### *Pāṭra* and *Anupāṭra*

In the abdominal area, located two fingerbreadths below, any injury may result in urinary incontinence and constipation. If the *Pāṭra* is affected, it can lead to an obstruction of both urine and stool. This condition is analogous to the *Basti maṛma* as described in *Suśruta*, with similar symptoms and anatomical positioning.



### *Mūṭrāyana*

The area located below the umbilicus and above the anal region is critical; any injury sustained in this region can result in fatality. This area is often likened to *Basti māṛma* due to the similarities in both its anatomical position and the symptoms associated with injuries.

### *Entakorupura*

The measurement is three finger lengths above the anus. In the event of an injury, death may occur within twelve days and two hours. Symptoms indicative of such an injury include anal pain, urinary obstruction, excessive thirst, disorganized speech, and impaired mobility

### *Aṃsamela*

Located above *Entakorupura* is another significant point known as *Aṃsamela*. Any injury to this area may result in urinary incontinence, reduced strength in the lower limbs, inflammation of the lower abdomen, and a reddish discoloration of urine.

### *Pakṣaasṛaya Āmaaśaya*

Injuries to both sides of the abdomen can result in significant complications. When the *pakṣaasṛaya* is affected, symptoms such as tremors and difficulty in lying down may manifest. Ultimately, such an injury can lead to the patient's demise.

### *Koppara*

In the area above the sides and beneath the chest, any injury may result in symptoms such as a whitish discharge, confusion, nonsensical speech, hiccups, and disturbances in *vāta*.

### *Hṛdaya*

The area located between and beneath the breasts, extending to the upper abdominal region, is influenced by the *rakta dhātu*. This region measures approximately one finger's length and is characterized by a three-coiled structure. Any injury to this area may result in immediate death, and it is analogous to the *Hṛdaya māṛma* as described in the *Suśruta Samhita*.

### *Vastiroohita*

The area beneath the breast region lacks extensive information regarding this māṛma..

### *Tāḷemoolam*

The area located beneath the breast is influenced by the *rakta dhātu* and measures approximately one finger in length. An injury in this region can result in a kapha accumulation in the chest, potentially leading to fatality. Symptoms associated with such an injury include intense thirst and difficulty in lying down. This condition is compared to *Stanamūla*, as described in the *Suśruta Samhita*, which is also positioned below the breast.

### *Melestanamoolam*

Injury occurring three fingerbreadths above the nipples on either side can result in fatality due to blood accumulation in the chest cavity. Symptoms include disturbances in *vāyu*, along with weakness and thirst. This condition is likened to *Stanarohita*.

### *Caṛmanepparasambhavam*

In the area between the breasts, injuries can lead to symptoms such as cough and difficulty breathing. This condition is analogous to *Āpasthambha* as described by *Suśruta*, which affects the sides of the chest. Such injuries may produce symptoms akin to those associated with *Caṛmanepparasambhavam*.

### *Śuśira*

Located above the nipple, an injury in this area can lead to a blood-filled abdomen, along with pain and inflammation in the back, as well as difficulties in urination and defecation. No comparisons are provided.

### *Rañḍukūḷa*

The area located between the thorax and abdomen, specifically the upper part of both flanks, can be affected by injuries that lead to leg weakness, fecal obstruction, and overall weakness. This condition is likened to *Apalāpa*, as the symptoms resulting from injuries to these specific *maṛmas* exhibit notable similarities.

### *Veṇārdandanennesṛani*

*Veṇārdandanennesṛani*, which causes significant pain in the hip area and results in decreased strength in the lower limbs.

### *Bāhubhāga*

In the rear section of the body, any damage can result in a decrease in strength due to conditions such as *pitta*, *pandu*, *prameha*, and *sukla*. Injury to this crucial area disrupts the union of 18 *maṛma* points in the abdominal region, leading to swelling and an imbalance of *vāta*, which can result in ulceration and potentially death. This area is likened to *Amsaphalaka*, measuring half an *aṅgula*. The symptoms associated with such injuries exhibit notable similarities.

### *Sankhya*

In the area above the shoulder blade, any injury can lead to challenges in lifting the arms and may result in muscle wasting. This condition is likened to *Amsa*, with the comparison focusing on the symptoms associated with the injury and the specific location of the *maṛma*.

### *Uccīra*

The region extending from the cervical to the sacral area (*Punellu*) is critical. Any injury in this zone may result in a loss of tactile sensation, tremors, excessive sweating, burning sensations, and potential loss of consciousness. This condition is analogous to *Kukūṇḍara* as described in the *Suśruta Samhita*.

### *Sasyakuṭa*

In the area just above the hip, an injury can lead to inflammation, persistent aching pain, a burning sensation, increased thirst, and challenges in speech resulting from the discomfort. This condition is likened to *Nitam̐ba*, as both share a similar anatomical location.

### *Kaṇḍanāli*

Injuries occurring behind the ears can lead to deafness, localized weakness, and confusion. These effects are analogous to those experienced by *Vidhura*, as both the location and symptoms of the injuries exhibit notable similarities.

### *Vastika*

Injuries to the ear vein can lead to symptoms such as tearing, hearing loss, and impaired balance.

### *Niyambi*

In the anterior region of the neck, injuries to these areas may result in muteness, nonsensical speech, and weakness in one lower limb. This condition can be likened to *Kṛkāṭika* as described in the *Suśruta Samhita*, particularly due to the shared symptom of neck tremors.

### *8 Ńjarambu*

There are eight essential nerves located behind the neck, converging at the deepest section of the tongue. This arrangement is analogous to the *Matṛika* described in the *Suśruta Samhita*, which also consists of eight elements.

### *Pañcanool śatakam*

Consists of 2 *Maṛmas*, an injury can lead to challenges in walking straight, eventually resulting in an inability to walk, causing the individual to sit. Additionally, there may be instances of teeth grinding. The condition is likened to *Sīmañta* due to the resemblance in symptoms.

### *Akṣikooda*

In the area between the eyebrows, any injury may lead to fainting after taking about three steps. Symptoms include memory loss, impaired walking, incoherent speech, and trouble closing the eyes. This condition is likened to *Sthapanī*, which shares a similar location and characteristics of injury.

### *Aprāṅga*

The region surrounding the eyes can be affected by injuries that may lead to symptoms such as fainting, tremors, and teeth grinding. This condition is analogous to the *apāṅga* described in the *Suśruta Samhita*, reflecting its anatomical significance in relation to the *maṛma*.

### *Muḷamelpoothi*

It is situated between the shoulders. There is limited documentation on injuries related to the *maṛma* in the existing manuscripts.

### *Sikha*

Located at the apex of the head, any trauma to this area results in fluid leakage, which can be fatal. This region is likened to *Adhipati*, with the analogy drawn from its positional significance and the consequences of injury to *maṛma*.

### **Marma in the manuscript in comparison to marma in Susruta samhita**

The total *maṛma* are 107 in number. Though the total number of *marma* is similar, one to one comparisons are not always possible. There are variations in the location and dependency of the *marma*. 51 named *maṛmas* are available. Comparison with *Suśruta Samhita* can be made for 38 *maṛma*. No comparison can be made for *maṛmas* like *Tuvethipe*, *Kakṣa*, *Antira*, *Tapporu*, *Entakorupura*, *Aṃsamela*, *Pakṣaasraya*, *Āmaasaya*, *Koppara*, *Vasthirohitha*, *Susira*, *Veṇārdandanennesṛani*, *Vastika* and *Kaṣṭanāli*. Here the comparison is mainly done on the basis of the position of the *maṛma* and symptom caused by injury to the *marma*.

In case of *Vivīta*, *Gulpha*, *Arupāsti*, *Īndravasti*, *Nātāni* are compared with *Īndravasti*. This may be present in both hands and legs. Most appropriate comparison is made with *Nātāni* *maṛma* due to its location.

*Maṇibaṇḍha* and *ūrvī* are compared with *Urvi*. *Anupātra*, *Pātra* and *Mutrāyana* are compared with *Basti*. Most appropriate comparison is made with *Mutrāyana* since the symptoms of injury are similar. 8 *Ōjarambu* is compared with *Matṛika* due to its similarity in number and symptom of injury.

### **Conclusion**

The exploration of the manuscript titled '*Dēhattilē Maṛma Viparaṇ*' as one that deals with the field of *marma* reveals the following unique features

- The nomenclature used for *maṛma* differs from that found in classical literature, and the manuscript organizes *maṛma* based on regional descriptions rather than conventional classifications.
- The manuscript exclusively details the treatment for *maṛma*, marking a significant addition to the field of medicine.
- The manuscript presents a distinctive perspective on *maṛma*, diverging from traditional texts by including specific treatment protocols for injuries associated with each *maṛma*. This highlights the author's proficiency in therapeutic practices and reflects the medical options accessible during that era.
- The primary approach involves the use of internal medicine, utilizing readily available drugs for treatment. Notably, there are no references to manipulation techniques. Such approaches may be applicable for superficial injuries of *maṛma*.
- Dhāra and lepa are predominantly employed.
- The treatment protocols are systematically organized, outlining sequential options should initial methods prove ineffective.
- The text emphasizes the use of single drugs or small formulations and adopts a practical, hands-on approach, introducing innovative preparations such as *karimkoḷi*.
- Experts have noted that the manuscript outlines a treatment protocol for *vṛana*.
- It offers a more accurate prognosis and provides comprehensive treatment strategies for *maṛma abhigāta* without any alterations.

### Scope and recommendations

- A critical edition of the material may be developed by examining additional manuscripts that share similar concepts.
- Exploration of the *yogas* and treatment methods outlined in these texts for individual *marma abhigata*.
- A comparative analysis of the manuscript with other classical and regional *marma* literature.

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