

A LITERARY REVIEW OF MANIBANDHA MARMA WITH CARPAL TUNNEL SYNDROME

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ABSTRACT

The part of body, on which injury causes death, is called as *marma*. *Marma* is defined as confluence of five elements such as *mamsa*, *sira*, *snayu*, *asthi*, *sandhi*. As a natural phenomenon *prana*(life) seated at these places. Hence, any injury to these places leads to consequences depending on structures involved. The *Manibandha marma* belongs to *shakhagat* and *rujakar* type *marma* which is located at wrist joint which may be compared to Carpal tunnel syndrome which is also present at palmer side of wrist joint and injury to these *manibandha marma* leads to structural and functional deformity of that area. In the present paper we tried to explore the relation between the *manibandha marma* and its injury aspect causes to Carpal Tunnel syndrome.

KEYWORDS: Marma, Manibandha, Wrist joint, Carpal tunnel.

INTRODUCTION

The science of *marma* dealt in *Ayurveda* is itself a surgicoanatomical learnig. The concept of *marma* is great contribution of *Acharya Sushruta* who explained 107 such vital points in various parts of body, which should be carefully dealt during surgery and should always be protected from injury as the essence of life resides in the *marma*.^[1] The general definition of *marma* goes like this, every *marma* is confluence of five elements such as *mamsa*, *sira*, *snayu*, *asthi* and *sandhi*^[2] but the evidence from description tells the traumatic effect or prognosis entirely depends on predominance of tissue type at the *marma* injury. One type of classification of *marma* according to *Sushruta* is *parinamakara* classified as *Sadyopranahara*, *Vishyalaghna*, *Kalantarpranhar*, *Vaikalyaara Rujakara*. *Rujakara* marmas

are 08 in number they are *Manibandha* (2), *Gulpha* (2) and *Kurchashira* (4) and the present paper is on *manibandha* marma which is one among *shakhagata* and *Rujakara* marma.^[3]

AIM & OBJECTIVES

Understanding of manibandha marma with carpal tunnel syndrome through literary study.

MATERIAL AND METHODS

Literary and conceptual study will be undertaken by the data compiled from Brihatrayis, Laghutrayis and other classical text and correlated with knowledge of contemporary science on the subject.

Manibandha Marma

These are two in number, type of Sandhi marma, size is 02 angula, located at the wrist joint, underlying important anatomical structures are distal radioulnar joint, anterior and posterior ligaments of radioulnar joint, wrist joint (radiocarpal joint), radio-carpal ligaments, radial, ulnar, median nerve and ulnar and radial artery. Qualities relative to injury is rujukara (pain causing), cause is trauma, Symptoms if injured to this marma leads to structural and functional deformity in hand, loss of flexion and extension of 2nd, 3rd and 4th fingers and adduction of 2nd, 3rd and 4th metacarpals. Bleeding may lead to pain, shock and infection.^[4]

Carpal Tunnel

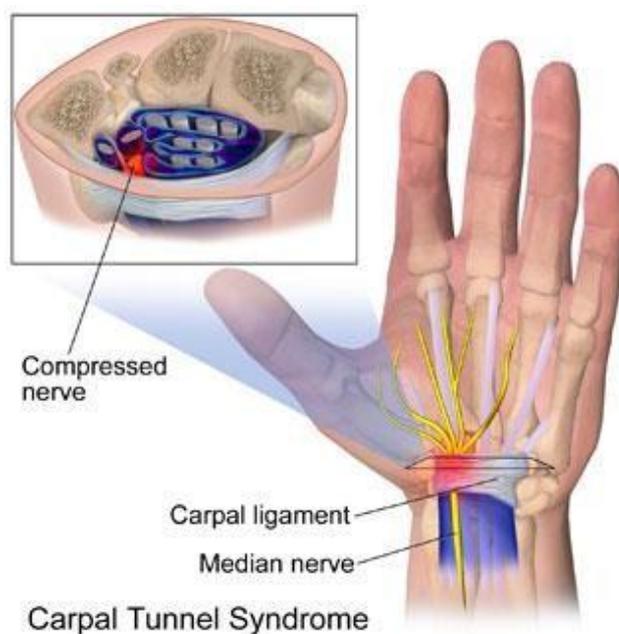
It is located on the flexor side of the forearm, carpal tunnel or carpal canal connects forearm to middle compartment of the deep plane of the palm.

Structures involved are the carpus, the bony element of the wrist, form an arch which is convex on the dorsal side of the hand and concave on the palmar. The groove on the palmar side sulcus carpi, covered by flexor retinaculum, a sheath of tough connective tissue, thus forming the carpal tunnel. Flexor retinaculum is attached radially to scaphoid tubercle and the ridge of trapezium and on ulna side pisiform along with hook of hamate. Superficial to Carpal tunnel and flexor retinaculum the ulnar artery and nerve pass through ulnar tunnel. A single nerve passes through the tunnel, the median nerve between two tendons of flexor digitorum profundus and flexor digitorum superficialis.^[5]

Clinical Significance

Effects of wrist movements: Movements in the wrist affects the shape and width of carpal tunnel. The width decreases considerably during normal range of motion in the wrist and

because the carpal bones move in relation to each other with every motion of the hand the bony walls of tunnel are not rigid. Both flexion and extension increase compression in carpal tunnel³ Flexing the wrist causes the flexor retinaculum to move closer to radius which considerably decreases the cross section proximal opening of tunnel. In extreme extension, the lunate constricts the passage as it is pressed towards the inferior of tunnel.



Carpal Tunnel Syndrome

Causes: Most of carpal tunnel syndrome are of unknown causes or idiopathic. Carpal tunnel syndrome can be associated with any condition that causes pressure on the median nerve at wrist. Some common conditions that can lead to carpal tunnel syndrome include obesity, hyperthyroidism, arthritis, computer operators and trauma etc.^[3]

Signs and Symptoms If Injured

Numness, pain, burning sensation in thumb, finger particularly index, middle and radial half of ring fingers, which are innervated by median nerve/Specific symptoms may include pain in wrist or hand and loss of grip strength.

DISCUSSION

Marmas are the vital spots to which on injury causes death and according to *parinama marmas* are classified as *Sadyapranahara*, *Kalantarapranaha*, *Vaikalyakara*, *Vishalyaghna* and *Rujakara*. Here *manibandha marma* comes under *rujakara marma*, these *rujakara marmas* are the one where on injury causes pain and *manibandha marma* involves the

structures coming under wrist joint, radio ulnar, radio carpal ligaments, radial and median nerve and artery, injury to *manibandha marma* causes pain, structural and functional deformity of these structures. Likewise carpal tunnel syndrome also consists of similar structures as in *manibandha marma* which on injury causes numbness, pain in wrist or hand, loss of grip strength.

CONCLUSION

Manibandha marma is rujakara marma which involves anatomical structures likewise joint, radio – ulnar, radio- carpal ligaments, radial and median nerve and artery. Injury to this causes stiffness of the joint, loss of movements of joint and severe pain during movement, functional deformity of hand likewise loss of flexion, extension and adduction of 2nd, 3rd and 4th fingers.

By comparing the location, structures involved, causes, symptoms of injury, clinical significance of carpal tunnel syndrome.

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