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A Critical Study on Kurcha Marma of Lower Limb

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ABSTRACT

Marma are vital areas of the body on which, if any injury occurs it may lead to *Marana* (Death) or *Maranasadrishya Dukha* (disability). As per description given by *Sushruta samhita*, *Kurcha Marma* is situated on both sides and proximal to *kshipra*. *Vagbhata* and *Dalhana* have stated its location as two *angula* above the *kshipra marma*. It is a *Snayu Marma*, 4 *angula* in *pramana*. The injury effects of *Kurcha Marma* leads to *Bramana* (Reeling and Misalignment) and *Vepana* (tremors of foot). *Vagbhata* has used the word *Kampa* instead of *Vepana*. To explore the structure producing these disability this study is being under taken.

KEYWORDS

Marma, Injury, Disability, Angula



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INTRODUCTION

Marma science is part of vedic science. Acharya Charaka has identified 107 *Marmas* but only Trimarma (*Shiras*, *Hridaya* and *Basti*) are emphasized by him. However, Acharya Sushruta described 107 *Marma* in purview of traumatology. *Marma* (vital points) is the seat of *prana* (life) and is constituted by confluence of *Mamsa* (muscle), *Sira* (vein), *Snayu* (ligament), *Asthi* (bone) and *Sandhi* (joint) Injury to these leads to various effects from death to permanent deformity¹. Acharya Vagbhata says that those sites which are painful on application of pressure and show abnormal pulsation should also be considered as *marma*². There are 107 such vital points in our body³. Acharya Sushruta and Acharya Vagbhata have mentioned various types of *Marma* depending upon their position, constituents, *viddha lakshana*, number, dimensions⁴etc. Depending upon effect of injury *Marmas* are classified in to 5 types like *Sadyaoprannahara*, *Kalataraprannahara*, *Vishalyaghna*, *Vaikalyakara*, *Rujakara*⁵. *Kurcha marma* is a *Vaikalyakara Marma*⁶(leading to deformity). The *Kurch Marma* is derived from the root word “*Kur+Chat*”, it means bunch of anything or bunch of grass⁷. Depending upon the structural classification, the *Kurcha Marma* is *Snayu*

(ligament) *Marma* (vital point) situated on both the feet⁸. *Dalhana* and *Vagbhata* have stated its location as two *angula* above the *kshipra marma*⁹. The injury effects of *Kurcha Marma* leads to *Bramana* (Reeling and Misalignment) and *Vepana*(tremors of foot)¹⁰. *Vagbhata* has used the word *Kampa* instead of *Vepana*¹². Thus this topic is selected to explore the structure producing these disabilities with the help of modern anatomy.

OBJECTIVES

To determine the regional anatomy and the structure involved in the effect of injury of *Kurcha Marmas* in relation to lower limb.

MATERIALS AND METHODS

Literary works, books, journals related to subject was reviewed and related information`s were correlated and analysed scientifically. Observation and identification of regional anatomy on cadaver was done by dissection. Photography`s were collected.

Literary works, books, journals related to subject were reviewed and related information's was correlated and analysed scientifically. Structure present in the region was observed on the cadaver by dissection.

Assessment criteria



On the basis of cadaveric dissection the regional anatomy of the *Kurcha Marma* on dorsal and plantar aspect of foot was determined. With the help of literary and observational study the location and anatomical structure of *Kurcha Marma* was exacted. The applied importance is understood by studying the published articles.

OBSERVATION

Following observations were obtained during the study as given in the table 1 and 2

Table 1 Anatomical Structures seen at the site of *Kurcha Marma* Plantar Aspect

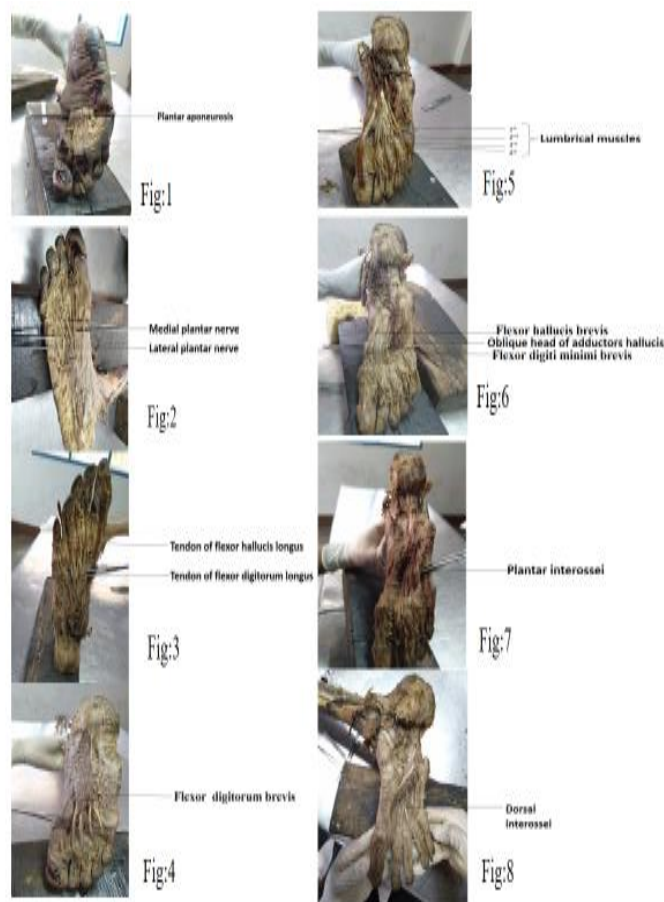
Sr. No	Ayurv edic View	Modern Co-relation
01.	<i>Mamsa</i>	Adductorhallucis,lumbricalmus cle(Fig:5),Flexorhallucis brevis , Plantar(Fig:7) and Dorsal interossei (Fig:8)
02.	<i>Sira</i>	Plantar metatarsal arteries
03.	<i>Snayu</i>	Plantar aponeurosis (Fig:1), tendon of flexor digitorum brevis and longus, tendon Of flexor hallucis brevis(Fig:6) and longus, medial and lateral plantar nerve(Fig:2) .Tendon of Peroneus longus and Tibialis posterior.
04.	<i>Asthi</i>	2 nd ,3 rd and 4 th metatarsal bones
05.	<i>Sandhi</i>	Tarso metatarsal joint.

Table 2 Anatomical Structures seen at the site of *Kurcha Marma* Dorsal Aspect

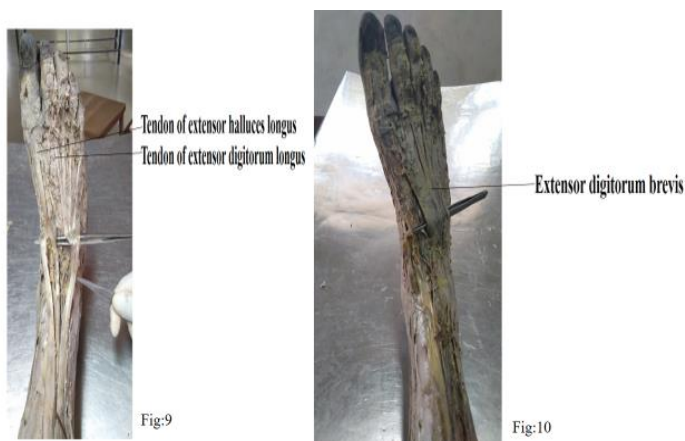
Sr.No	Ayurvedic View	Modern Co-relation
01.	<i>Mamsa</i>	Dorsal interossei (Fig:8)
02.	<i>Sira</i>	Dorsal metatarsal arteries
03.	<i>Snayu</i>	tendon of extensor digitorum longus(Fig:9) and brevis(Fig:10),extensor hallucis longus (Fig:9)

04.	<i>Asthi</i>	2 nd ,3 rd and 4 th metatarsal bones
05.	<i>Sandhi</i>	Tarso metatarsal joint

Plantar Aspect of foot Dissection images



Dorsal aspect of foot Dissection images



DISCUSSION

Discussion on location



The region of the marma is two angula above the *kshipra marma* on both sides (dorsal and plantar aspect). The term *kurcha* means brush like. So, the region of central part of plantar aponeurosis and the tendons of flexor group of muscles can be considered in the plantar aspect. And in the dorsal aspect, the region where the extensor digitorum tendons are present can be considered.

Discussion on marma vasthu

According to *rachana* (structure) it is a *Snayu Marma*. On the dorsal aspect of foot Snayu can be correlated to the tendon of muscles of extensor group namely tendons of extensor digitorum longus, extensor digitorum brevis and dorsal interossei. On plantar aspect plantar aponeurosis, tendon of flexor digitorum longus, flexor digitorum brevis, lumbricals, plantar interossei, medial and lateral plantar nerves, tendon of tibialis posterior, peroneus longus can be considered as snayu.

Discussion on effect of injury

The prognosis of injury depends upon the site of injury, depth of injury, force at which the injury is caused etc. Based on prognosis of injury at the site of Marma they are classified under five heading as *Sadyo-Pranahara*, *Kalantara Pranahara*, *Vishalyaghna*, *Vaikalyakara* and *Rujakara*. Each of these words has got a specific meaning indicating the prognosis. *Kurcha*

marma is a *Vaikalyakara marma*. The word *Vaikalyakara* is derived from *Vaikalya* which means deprived of some part or abnormality or deformity or disability to do something. Injury to *Kurcha marma* leads to *pada bhramana* and *vepana*.

Injury to the tendon of muscles of extensor group namely tendons of extensor digitorum longus, extensor digitorum brevis leads to foot drop (fig.11). Injury to the tendon of flexor group and plantar aponeurosis leads to loss of longitudinal arch of foot (fig.12). Injury to plantar interossei, lumbricals leads to claw foot deformity (fig.13). Injury to the tendon of tibialis posterior leads to eversion of foot (fig.14). Injury to tendon of peroneus longus leads to inversion of foot (fig.15). Injury to the plantar nerves leads to Paralytic flat foot (fig.16). These all deformities can be considered as *pada bramana*.

Deformity of the foot images



Fig 11 :Foot Drop



Fig14:Inversion of foot



Fig12:loss of longitudinal arch of foot



Fig15:eversion of foot



Fig13:Claw foot deformity



Fig16: Paralytic flat foot



CONCLUSION

Kurcha marma is a *snayu marma*. The *snayu* can be correlated to the tendons of extensor group on the dorsal aspect and the tendon of flexor group and tendon of intrinsic muscles on the plantar aspect. *Bhramana* and *Vepana* can be correlated to foot drop, Flat foot, claw foot, Paralytic flat foot, inversion and eversion of foot.



REFERENCES

1. Sushruta. Yadavji Trikamji Acharya, editor. Sushruta samhita with Nibandha Sangraha of Dalhanacharya. 8th ed. Varanasi: chaukhambha orientalia; 2008.Pp824, p.369.
2. Vagbhata. Harisadasivasastri paradakara Bhisagacarya, editor. Ashtanga Hrudayam with sarvangasundara of arunadatta and ayurvedarasayana of hemadri. Varanasi chaukhambha orientalia; 2005.Pp956, p.409.
3. Sushruta. Yadavji Trikamji Acharya, editor. Sushruta samhita with Nibandha Sangraha of Dalhanacharya. 8th ed. Varanasi: chaukhambha orientalia; 2008.Pp824, p.371.
4. Sushruta. Yadavji Trikamji Acharya, editor. Sushruta samhita with Nibandha Sangraha of Dalhanacharya. 8th ed. Varanasi: chaukhambha orientalia; 2008.Pp824, p.371.
5. Sushruta. Yadavji Trikamji Acharya, editor. Sushruta samhita with Nibandha Sangraha of Dalhanacharya. 8th ed. Varanasi: chaukhambha orientalia; 2008.Pp824, p.369.
6. Sushruta. Yadavji Trikamji Acharya, editor. Sushruta samhita with Nibandha Sangraha of Dalhanacharya. 8th ed. Varanasi: chaukhambha orientalia; 2008.Pp824, p.369.
7. Sushruta. Yadavji Trikamji Acharya, editor. Sushruta samhita with Nibandha Sangraha of Dalhanacharya. 8th ed. Varanasi: chaukhambha orientalia; 2008.Pp824, p.367.
8. William M. A, Sanskrit – English Dictionary, Reprint, 2005, New Delhi, Bharatiya Granth Niketan; pp1333.p476
9. Sushruta , Sushruta Samhita with the Nibandha Sangraha commentary of Dalhana Acharya , edited by Vaidya Jaadvji Trikamji Acharya, Chaukhambha Sanskrit Sansthana : Varanasi , 2012 ,Pp:824, p.372.
10. Vagbhata. Harisadasivasastri Paradakara Bhisagacarya, editor. Ashtanga Hrudayam with sarvangasundara of arunadatta and ayurvedarasayana of hemadri. Varanasi chaukhambha orientalia; 2005. Pp956 , p.409.
11. Sushruta, Sushruta Samhita with the Nibandha Sangraha commentary of Dalhana Acharya, edited by Vaidya Jaadvji Trikamji Acharya, Chaukhambha Sanskrit Sansthana : Varanasi , 2012 ,Pp:824, p.372.
12. Vagbhata. Harisadasivasastri Paradakara Bhisagacarya, editor . Ashtanga Hrudayam with sarvangasundara of arunadatta and ayurvedarasayana of hemadri. Varanasi chaukhambha orientalia ;2005.Pp956, p.409