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BANDHANA WITH MANJISHTADI LEPA IN THE MANAGEMENT OF ANKLE SPRAIN – A CASE REPORT

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ABSTRACT

The ankle joint is the most common site for a ligament injury in the body. Some ankle joint injuries are minor and heal with some rest from activities, but some are serious and require immediate medical attention. An ankle sprain refers to ligament injuries of the ankle. In classics, there is no direct reference regarding sprain and its management. In *Susrutha Samhitha Chikitsa Sthana 3rdchapter, Bhagna Chikitsitham, Acharya Susruta* has mentioned the application of *Manjishtadi Lepa* for traumatic joint injuries. In the present case study, a 22 years old male patient visited the OPD with severe pain and swelling of the right ankle following a twisting injury of the foot. He was diagnosed with a grade 1 ankle sprain and was bandaged with *Manjishtadi Lepa*. Management with *Manjishtadi Lepa* has shown significant relief in pain and swelling as well as in the restoration of normal movements.

Keywords*: Ankle sprain, Manjishtadi Lepa*

INTRODUCTION

An ankle sprain refers to ligament injuries of the ankle. It is mainly an indirect type of injury due to sudden inversion or eversion. Ligament undergoes partial or complete tear resulting in severe pain, swelling, redness, increased temperature etc. The ankle joint is fairly unstable and depends largely on the ligaments for its stability. The most common injury of the ankle is a partial or complete rupture of the lateral

and medial collateral ligament of the ankle joint. Though these injuries appear to be simple they are more troublesome and painful to the patient.

In any traumatic condition, swelling occurs due to the inflammation of that part. Inflammation is the reaction of living tissue towards injury. When trauma occurs, there is extravasation of blood due to breakage of small vessels and it results in hematoma formation. To reduce the pain and swelling caused by trauma, the treatment given should be *pitha Samana rakthaprasadaka*, *sandhaneeya*, and *sophahara*[1]. In *Susrutha Samhitha Acharya* has mentioned *seetapradeha* for swelling caused by *pathana* and *abhighata*[2]. The treatment for acute sprains and strain is RICE ie. rest, ice, compression, and elevation. *Manjishtadi lepa*[3] was selected as the drugs are mainly *seethaveerya* as well as have a compression effect; therefore, this study will be effective in reducing pain and swelling.

PREPARATION OF LEPA

Manjishta, yashtimadhu, rakthachandana, and Shali are ground separately. *Shali* is made into *pishti* by mixing with water. *Manjishtadi Lepa* is prepared by mixing the powder with *shalipishti* and *shatadhouthaghrtha.*

CASE SUMMARY

A 22 yr. old male visited the OPD with severe pain and swelling of the right ankle joint. He had a history of falls by twisting of right foot inwardly last night. He had difficulty walking as well as standing. On clinical examination, he had grade 4 tenderness and all the movements were restricted and painful. Talar tilt test in the plantar and dorsiflexion was positive which indicated injury to the anterior and posterior talofibular joint. X-ray was taken to rule out any bony injury.

METHODOLOGY

The patient was asked to lie on a table. *Manjishtadi Lepa* was pasted on 15 cm sterile gauze for 1 cm thickness and the ankle joint is bandaged with *swasthika bandhana*. Rebandaging was done every five days for 15 days.

The observations are presented below:

Table 1: Observations

Signs	9/10/2020	13/10/2020	18/10/2020	23/10/2020
Pain	Score 3	Score 1	Score 1	Score 0
Swelling	54 cm	53cm	52.5cm	52cm
Tenderness	Grade 3	Grade 1	Grade 1	Grade 0
Dorsiflexion	Severe pain	Slight pain	Slight pain	No pain
Plantarflexion	Severe pain	Slight pain	Slight pain	No pain
Eversion	Slight pain	No pain	No pain	No pain
Inversion	Severe pain	Slight pain	Slight pain	No pain

ORAL MEDICATION PRESCRIBED

Musthadimarma Kashayam (90ml twice daily before food) from the pharmacy of Govt. Ayurveda College, Thiruvananthapuram, and *Lakshaguggulu* (2tablets twice daily after food) from a certified company for 20 days. The patient was advised to take complete rest along with their foot elevated.

RESULT: Bandaging with *Manjishtadi lepa* in ankle sprain gave significant relief in 15 days.

Figure 1: Before Treatment

Figure 2: After Treatment

DISCUSSION

Manjisthadi Lepa is a combination of 5 drugs having *Madhura, Kashaya Rasa*. These properties help to pacify *Pitta, Rakta* and *Vata*, which are mainly vitiated in acute traumatic conditions. This helps for the management of Ankle Sprain.

Swelling is one of the reasons for pain at the site of the ankle sprain due to pressure on peripheral sensory nerves. Due to the *madhura* and *snigdha guna*, *yashtimadhu* reduces the *pitta* which in turn reduces the inflammation. It is also *vedanasamana* due to its *Guru Guna*. As it is having anti-microbial properties it doesn't allow the growth of microbes in the *Lepa*. Its chemical composition includes salts and potassium which help in the healing process.

Rakthachandana due to its *madhura rasa* and *sheeta veerya* reduces the pain. It also has *shotahara* property.

The *Laghu Guna* of *Satadhoutha Ghrita* makes it readily permeable into the skin by body temperature. The *snigdha* and *madhura* properties reduced the swelling and pain. The fatty lobules of the *Ghrita* act as a base for the *Lepa* and aid in easy penetration of the drugs and help for tissue repair.

The *Laghu Guna* of *shali* makes the drug penetrate through the skin very easily. The *Pishti* prepared out is *snigdha* and *picchila* which sticks on the skin and put a local pressure that makes the collected tissue fluid escape out. The starch content of the *Shali* gives strong support to the site of Ankle Sprain. Hence this may be a very important drug in reducing swelling, pain and immobilization. *Manjistha* is *Raktaprasadaka* and is *madhura thiktha kashaya rasa* which reduces *pitha*. This results in the reduction of the swelling and inflammation around the site of the sprain. The chemical composition is calcium salts, gum, resinous matter, which initiates early healing.

Lepa maintaining its cooling effect for a prolonged duration helps for the absorption of medicinal properties of the *Lepa. Ghrita* is the base of *Lepa* which acts as the vehicle for the absorption of the drugs through the skin. As *Ghrita* is *vatapitha Samana* and *Snigdha* it also prevents the early drying of *lepa.*

The fundamental process of tissue healing is dependent on cellular activity. *Sheeta veerya* of the drugs can bring about a reduction in bleeding; reduce swelling at the site of acute trauma, pain relief and reduction in local muscle spasm.

The reduction in swelling can be attributed to immediate vasoconstriction of the arterioles and venules, which reduces the circulation to the area and therefore reduces the extravasation of fluid into the interstitium. This effect is enhanced by the reduction in both cell metabolism and vasoactive substances, such as histamine, which are also associated with cooling. The initial phase of vasoconstriction helps to reduce the flow of blood into tissue following a recent injury. This helps to limit the swelling and the extent of tissue damage.

Cold also stimulates the midbrain which may release Beta Endorphins or Enkephalins into the posterior horn and indirectly reduce pain by stimulation of the thalamus.

CONCLUSION

Bandhana with *Manjishtadi Lepa* was found to be very beneficial in an ankle sprain. The drugs of *Manjishtadi Lepa* are easily available, cost-effective and can be practiced at the OPD level. The duration of treatment is also short, owing to the fast action of the drugs.

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