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# Effect of Herbal Paste (*Manjishthadi Lepa*) in the Management of Acute Ankle Sprain

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## ABSTRACT

Background: Among commonly occurring traumatic skeletal injuries sprains and strains are more prone. These injuries appear to be simple, but are more painful and hamper the routine activities. A sprain is an injury to a ligament- a stretching or a tearing. Ankle is the most common site for acute musculoskeletal injuries and sprains. In all such conditions initial complaint of patients will be pain associated with swelling with or without deformity. Sometimes it has been chronic due to improper treatment. *Acharya Sushruta*- the ancient Hindu surgeon has described about the management of traumatic joint injuries and stated about the application of *manjishthadi lepa* in such type of injuries in his book *Sushruta samhita*. This attempt aims at exploring the scope of *ayurveda* in management of different type of musculoskeletal injuries, the effect of *manjishthadi lepa* in ankle sprain will fulfill our treatment aim.

**Key Words** Traumatic Injury, Ankle Sprain, *Manjishthadi Lepa*

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## INTRODUCTION

An ankle sprain is where one or more of the ligaments of the ankle are partially or completely torn<sup>1</sup>. It can result from a fall, a sudden twist or a blow to the body that forces a joint out of its normal position. This results in an over stretch or tear of the ligament supporting that joint.

Ankle sprain is a common injury. The incidence of ankle sprain is highest in sports populations. This traumatic injury hampered the daily routine life activities. In such type of condition patient suffers with pain, swelling and difficulty in movements of injured site. Various methods of

treatment have been employed since ages, but the problem of morbidity remains as same unsolved today. Poor rehabilitation after an initial sprain increase the chance of this injury recurrence.

*Acharya Sushruta* has described about the application of *Manjistadi lepa* in traumatic joint injuries in *chikitsa sthana*<sup>2</sup>. *Acharya Sushruta* in the context of *Asthi-Bhagnahas* mentioned “*Patanabhighatatva*” which means *Patana*, *Abhighata* or both are the main causes for sprain, where it is advised to apply *Sheeta Pradeha* to reduce *Vedana* and *Shopha*. So, the attempt is

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made to assess the efficacy of non-invasive and OPD based management by *Manjishthadi lepa*<sup>3</sup>.

### CASE REPORT

A 27 years old male patient came to *Shalyatantra* O.P.D. in Government Akhandanand Ayurveda College and hospital, Ahmedabad with complaints of pain and swelling present on lateral aspect of left ankle joint since 1 day. Patient also had difficulty in movements of ankle joints. There was history of traumatic injury due to road traffic accident before 1 day. On the basis of clinical examination patient was diagnosed as a case of acute ankle sprain. After careful assessment and examination, patient was treated with application of *Manjishthadi lepa*.

**Table 1** *Manjishthadi lepa* Drugs

Drug	Latin name	Part used	Proportion
<i>Manjishta</i>	<i>Rubia cordifolia</i>	Root	1 part
<i>Yashtimadhu</i>	<i>Glycyrrhiza glabra</i>	Root	1 part
<i>Raktachandana</i>	<i>Santalum rubrum</i>	Heartwood	1 part
<i>Shalipishiti</i>	<i>Oryza sativa</i>	Grain	1 part
<i>Shatadhauta Ghrita</i>			As per require

**Table-2** Effect of *manjishthadi lepa* on symptoms:

Symptoms	1 <sup>st</sup> day	2 <sup>nd</sup> day	3 <sup>rd</sup> day	4 <sup>th</sup> day	5 <sup>th</sup> day	6 <sup>th</sup> day
Pain	+++	+++	++	+	+	0
Swelling	+++	++	+	0	0	0
Tenderness	++	++	+	+	+	0
Difficulty in movements	+++	++	++	+	0	0

### OBSERVATION AND RESULTS

Clinical examination of the patient revealed regression of symptoms with treatment on first day which mention in table-2.

Probable mode of action of therapies *Lepa*<sup>4</sup>:

*Manjishtha*: *Manjishtha* is *raktaprasadaka* by its action. It is having *Ushna Veerya* so it will dilate the peripheral vessels, especially there will be venous dilatation followed by increased

Preparation of *Manjishthadi Lepa* :

The drugs mentioned in table-1 were grinded separately except *Shatadhauta Ghrita* and then mixed one by one. The required quantity of powder was taken and paste was made by adding *Shatadhauta Ghrita* and used for application over the injured area. For each application fresh paste was prepared. The thickness of *Lepa* was 1cm and removed after complete drying up of *Lepa*. This *lepa* was applied once a day for a period of 5-7 days.

Assessment criteria :

Pain

Swelling

Tenderness

Difficulty in movements

peripheral arterial blood flow. This may be the reason for the reduction of the swelling around injured area. Due to its *kapha-pitta-shamaka* property, it will reduce the local edematous residue and its *ushna veerya* property helps to penetrate in to local tissue. Here the reduction of the swelling and pain may be due to its *ushna* property and *madhura* rasa by which local *vata shamana* Taction takes place and pain is reduced.

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*Yashtimadhu*: This drug is told in *Sandhaneeya gana* by *charaka*. It has *madhura* and *kashaya rasas*, which enhances the healing. Its *Madhura* and *Snigdha* properties reduces the Pitta i.e. it does anti-inflammatory action locally. This drug also having the property of *Madhura Vipaka* and *guru guna* which does *vatashamana* i.e. responsible for *shoolahara*. As it is having anti-microbial properties by which it doesn't allow to grow any microbes in the *lepa*.

*Raktachandana*: It has *Madhura Rasa* and *SheetaVeerya* so it reduces *Sthanikadaha* by which it helps to reduce pain. By *shothahara* property of this drug it will take out the edematous fluid of injured site.

*Shalipishti*: The *LaghuGuna* makes the drug penetrate through skin very easily. The *pishti* prepared from *shali* having *Pichhilaguna* and due to *SheetaVeerya* and *Snigdha* property of the drug it creates stickiness on the skin by which it puts a local pressure which makes the collected tissue fluid to escape out. The same drug may again absorb this. Hence this may be very important drug in reducing swelling, pain and for immobilization.

*Shatadhautaghrita*: Due to *laghuguna* after *samskarghrita* becomes more permeable in to skin by body temperature. The *Snigdha* and *Madhura* property reduces swelling and pain.

## DISCUSSION

*ManjishthadiLepa* is having action of *raktaprasadak* and *ushnaveeryaguna* helps to

penetrate into the local tissue that will dilate the peripheral vessels, thus resulting in venous dilation followed by increased peripheral arterial blood flow. Which reduce the swelling at the affected area. The pain being the resultant of swelling which exerts pressure over the peripheral sensory nerve, the *UshnaGuna* and *Madhura Rasa* of the *Lepadravya* probably act as *VataShamaka*, this results in reliving the pain. *Yastimadhu* along with *ShatadhautaGhrita* act as *Vranaropana* and *Pitta Shamana* and *Madhura* and *Snigdha* property act as anti-inflammatory. *ShatadhautaGhrita* enhances tissue permeability aiding in tissue repair. The *Lepa* itself during the process of drying may cause local pressure and stiffness and the act of rest help in faster recovery.

## CONCLUSION

*ManjishthadiLepa* was found to be beneficial in acute ankle sprain. Patient feels relief in short duration of time, owing to the fast action of the drugs. So patient can return to their routine activity as early as possible. This drug also easily available in market and cost effective and it can be practiced in OPD level.

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