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A CASE STUDY ON EFFECTIVENESS OF DHANYAMLADHARA FOR THE MANAGEMENT OF LISFRANC LIGAMENT INJURY OF FOOT

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ABSTRACT

Orthopedic surgeons have a keen clinical and research interest in ligament injuries. The biomechanical and clinical data researchers generate, help to drive ligament injury management and prevention practice globally. The current concept in ligament injuries and surgical corrections are being shaped by technological advances expansion in basic science research. As new methods are being developed in this field, the primary goal of safety improving patient outcomes will be unifying principle. Ayurveda plays a pivotal role in ligament injury managements. There are number of Ayurveda medicines which are effective both internally and externally in ligament injury managements. In this single case clinical study trying to prove effectiveness of dhanyamladhara for the management of Lisfranc ligament injury of the foot.

KEYWORDS: Lisfranc ligaments, Dhanyamladhara, Sandhana kalpana, Rookshana, Avarana.

INTRODUCTION

The term Lisfranc injury refers strictly to an injury in which one or more of the metatarsals are displaced with respect to the tarsus. This name is attributed to a French surgeon who was the first to describe the injury in 1815 and to describe an amputation at the level. The use of this term is very broad and can refer to a low energy sports injury or high energy lesion, as well as lesion that are purely ligament injury or that are associated with fractures of the metatarsals, cuneiform bone, scaphoid bone or cuboid bone. Lisfranc injuries are infrequent, at approximately 0.2% of all fractures, although in 20% case they are not diagnosed or are diagnosed late. However early and accurate diagnosis of this injuries are fundalmental requirement for their appropriate treatment and to prevent long-term sequelae. The present study is a single case clinical study of dhanyamladhara for the management of Lisfranc ligament injury. Ayurvedic Pharmaceutics are formulated through the transfer of active ingredients by different manufacturing processes. Sandhana Kalpana is one of the best pharmaceutical preparations in Ayurveda practice since ancient time. The term Sandhana is used to denote fermentation process Sandhana kalpana is a unique form in which acidic and alcoholic fermented formulations are prepared. In order to prepare these medicaments, liquids mixed along with drugs are kept on certain conditions to take place fermentation. In these preparations acid is produced predominantly and their taste is mainly sour. Thus, these formulations may have longer shelf life quick absorption and excellent therapeutic efficiency compared to Ayurvedic herbal medicines. Out of those preparations Dhanyamla has a great importance as a medicament.

CASE REPORT

A 52year old female came with pain on the dorsum of foot. Pain started since 6months.Pain worsen while walking little long distance. On inspection no redness swelling was there.

History of past illness

Patient was apparently healthy before 6months.H/O Fall on a twisted foot. X-ray took which shows fracture on second metatarsal bone. Fracture management was done with plastering and rehabilitation. Later pain started slightly on dorsum of the foot while walking. No history of diabetes, blood pressure and hypercholesteremia. Patient came to our opd for further ayurveda management.

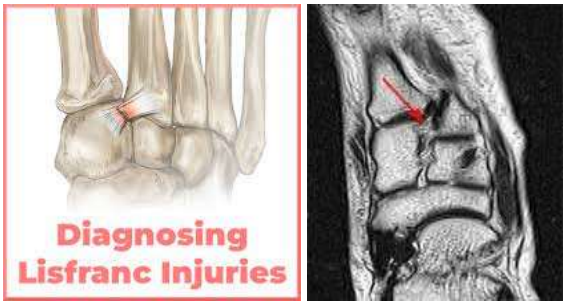
No H/O DM, HTN, HC
Movements of the foot
Plantar flextion-painful
Dorsi flexion-painful
Eversion-painful
Inversion-painful

MRI Scan report
Mild to moderate OA changes seen along the first and second cuneonavicular and along the second and third tarsometa tarsal articulations of the mid joints.

Sprain appreciated along the interosseous segment of the Lisfranc ligament along C1-M2 insertion site.

Lisfranc ligament injury
The Lisfranc joint is a grouping of bones and ligaments in the mid foot, where the 5metatarsal bones meet up with the smaller cuboid bone and medial middle and lateral cuneiform bones. Ligaments hold these bones in place. The Lisfranc joint stabilize the foot arch and helps transfer loards from the lower leg through the foot, all the way to the toes when walking or running.

Lisfranc injuries, while not highly common, occur when any of the bones or ligaments in the Lisfranc joint break or tear. A Lisfrsnc or mid foot injurytypicaly results from a sudden trauma. It can take months to heal fully. Lisfranc injury treatment depends on the type and severity of the damage. In some cases rest can help heal a sprain.



Preperation of Dhanyamla

Sanskrit name	Botanical name family	English name	Part using	proportion
Tandula	Oryza sativa L (Poaceae)	Rice	Seed	10 Prastha
Pruthuka	Pressed form of Oryza sativaL (Poaceae)	Rice flakes	Pressed seed	10 Prastha
Kulattha	Macrotyloma uniflorum (Fabaceae)	Horse gram	Seed	10 Prastha
Laja	Puffed form of Oryza sativa (Poaceae)	Pop corn	Puffed seed	4 Prastha
Kangu beeja	Punicum sumatrense Roth (Poaceae)	Little millet	Seed	1 Adhaka
Kodrava	Paspalum scrobiculatum L. (Poaceae)	Kodo millet	Seed	4 Prastha
Nagara	Zingiber officinale (Zingiberaceae)	Ginger	Rhizome	2 Prastha
Nimbuka	Citrus aurantifolia (Rutaceae)	Lime	Fruit	4 Prastha
Deepyaka	Tachyspermum involucratum (Apiaceae)	Carom	Seed	8 Kudava
Water				200 Prastha

METHOD OF PREPARATION 0F DHANYAMLA

It is advised to prepare the Dhanyamla on an auspicious day. A large deep earthern pot should be kept on an oven. Water should be added and boiled foresaid drugs listed above should be coarsely powdered. These drugs are made in to 9 bundles separately, using clean and cotton cloth. These bundles should be put in to the vessel containing the boiled water and the lid has to be loosely covered. The mixture is then kept for fermentation for 7days. On the 8^{th} day the required quantity of the liquid should be taken out. Same quantity of hot water should be added to the pot.(Sahasraogam).

OBSERVATION AND RESULTS

Before treatment
Pain Rating-7
Numerical rating scale (0-8)
(Scale 0 - No pain and Scale 8-severe pain)

Restricted Range of Motion of ankle
Dorsiflexion - +++
Plantarflexion - +++
Eversion - ++
Inversion - +++
Foot swelling
Ankle joint - ++
Dorsum of foot - +++

After seven days Dhanyamladhara treatment
Pain rating-2
Restricted range of motion of ankle
Dorsi flexion - +
Plantar flexion - +
Eversion - +
Inversion - +
Swelling
Ankle joint - +
Dorsum of foot - +

DISCUSSION

According to Ayurveda ligament injuries are included under Upadhathujanya vikaras. In the current case study, the patient had a ligament injury on the dorsum of foot that was producing excruciating pain, swelling, and movement restriction of ankle joint. The main patholpgy of upadhathujanya vikaras are vatakopa arised from abhighataja nidanas followed by avarana of kaphadosha. Dhanyamla is one of the most effective medicine for Rookshana in this situation. The Dhanyamladhara was done for 7days after that the patient got good recovery from primary severe conditions of pain and movement restriction.

CONCLUSION

Dhanyamladhra can be used in each and every aspect of ligament injuries primary stage as Rookshana therapy. From the present case study, it can be concluded that Dhanyamladhara is a promising ayuveda management of ligament injury, but furthermore work should be done on it.

REFERENCES

1. Lisfranc injuries. Clare MP. Curr Rev Musculoskelet Med., 2017; 10: 81-85. [PMC free article] [PubMed]
2. Updates on Lisfranc complex injuries. Yan A, Chen SR, Ma X, Shi Z, Hogan M. Foot Ankle Orthopaedics, 2021; 6: 2473011420982275. [PMC free article] [PubMed] [Google Scholar
3. Lisfranc fracture-dislocations: current management. Moracia-Ochagavía I, Rodríguez- Merchán EC.EFORT Open Rev., 2019; 4: 430-444. [PMC free article] [PubMed] [Google Scholar]
4. Lisfranc's fracture-dislocations: etiology, radiology, and results of treatment. A review of 20 cases. Goossens M, De NS. Clin Orthop Relat Res., 1983; 176: 154-162. [PubMed] [Google Scholar]
5. Lisfranc injury: how frequently does it get missed? And how can we improve? Sherief TI, Mucci B, Greiss M. Injury., 2007; 38: 856-860. [PubMed] [Google Scholar]
6. Jadavji Trikamji Acharya, Narayan Ram Acharya. editors. Sushruta samhita of Sushiruta. Critical edition. Bombay: Satyabhamabai Pandurang, 1945; Sootrasthaana 45/214-216: 204. Edited Book.
7. Shivprasad Sharma, editor. Astänga sangraha of Vyddha Vägbhata with the Sasilekha Commentary.3 edition, Varanasi: Chaukhambba Sanskrit Series office, 2012; Sootrasthaana 6103: 47. Edited Book
8. Panditrao D. B., translator; Vaidya Mahendrapal singh Arya, Editor. Sa luas rayogam Huditranslation, 1 edition, Reprint. New Delhi: Central Council for Research in Ayurvedic Sciences, 2011.Saptam Prakarana 46; p. 366. Edited book. 4 Wallis TE. Text book of Pharmacognosy 5th Ed., New Delhi CBS Publishers & Distributors, 2002; 123-132: 210-215.
9. The Ayurvedic Pharmacopoeia of India, 1 edition, Govt. of India, Ministry of health and family. welfare, Dept. of AYUSH, New Delhi, 2007; Part-II. Vol. I, appendix-3.2.: 190. The Ayurvedic Pharmacopoeia of of India, 1 edition, 6.Govt of India, Ministry of health and family. welfare, Dept. of AYUSH, New Delhi, 2007; II(1), appendix-3.3: 191.
10. The Ayurvedic Pharmacopoeia of India, 1 edition, Govt. of India, Ministry of health and family welfare, Dept. of AYUSH, New Delhi, 2007; II(I), appendix-3.8.: 199.