

**AYURVEDIC MANAGEMENT OF BONE FRACTURE IN SMALLER BONES: A SINGLE CASE STUDY**¹Vishnu Damodar, ²B G Kulkarni, ³Varun T V, ⁴Shyny Thankachan¹PhD Scholar, Dept. of Rachana Sharira, PIA, Parul University, Vadodara.²Professor & HOD, Dept. of Rachana Sharira, PIA, Parul University, Vadodara.³Assistant Professor, Dept. of Shalakya Tantra, Rajeev Institute of Ayurvedic Medical Science and Research Centre, Hassan.⁴PhD Scholar, Dept. of Rachana Sharira, PIA, Parul University, Vadodara.**Corresponding Author:** varu.t.v93@gmail.com<https://doi.org/10.46607/iamj1712042024>**(Published Online: April 2024)****Open Access**

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Bone fractures or broken bones are most common in day-to-day practice and can affect anyone at any age. It can be seen as a complete or partial break in the bone. The causes of bone fractures include trauma, over-use and diseases or deficiencies that weaken the bone. Commonly, people will go to a modern hospital after a trauma or hurt, in an emergency, or to manage pain. An X-ray investigation can quickly rule out a bone fracture. Depending on the fracture severity or presentation, there are various types of bone fractures: compound, spiral, comminute, transverse, etc. In our holistic science, can easily manage simple fractures in our OPDs. I got one patient came in clinic on October 2023 with trauma from a Road Traffic Accident. It was a slight fall from the bike on his own, and he was not that much bleeding or injured, but the right-hand ring finger started swelling with pain. As his sister is an Ayurveda medical student and the patient is having belief in Ayurveda, he came to OPD for the management. He consulted a modern hospital, took an X-ray; diagnosed it as a fracture, and he came to us. I managed the case of a simple fracture with Ayurveda medicines.

Keywords: Bone Fracture, X-Ray, Proximal Phalanx Bone, *Murivenna*, *Musthadi Marma Kashaya*,

INTRODUCTION

Bone fractures are a widespread injury and can affect anyone at any age. A bone fracture is the medical definition of a broken bone. Traumas like falls, car or bike accidents or sports injuries usually cause fractures. If a broken bone happens, it might need surgery to repair it. Some conditions only require a splint, cast, brace, or sling for their bone to heal. How long it takes to recover fully depends on which bones are fractured, where the fracture is and what caused it.

In *Ayurveda*, *Acharya Susruta* mentioned *Asthi Bhagna* and its management in *Susrutha Samhitha*. When *Acharya* described *Bhagna Chikitsa* (management of fractures), signs and symptoms, disorders related to bones, correctly identified injuries, optimal bone healing features, and local and internal therapies. *Acharya Susruta* developed the fundamental principles of *Bhagna Sthapna* (reduction of fractures), *Sthirikarna* (stabilization), *Anchana* (traction), *Bandhana* (splints), *Lepa* (pargeting), and *Parisheka* (douching) to treat these injuries. At the same time, they are still active and rehabilitate the joint to prevent subsequent problems like joint stiffness.¹ *Acharya Susruta* classified the *Kandabhagna* (fractures of bone) into 12 types and *Sandhi Muktha* (dislocation of *Sandhi*) into six types. And elaborately mention the *Nidanas* of *Bhagna* in *Susrutha Samhitha Nidana Sthana* 15th chapter 3rd *Sloka*.²

Considering the *Samhitha* references and medicine mentioned for bone healing, pain management, and nourishing the *Asthi*, decided to try this combination of treatments on the patient, and he was very cooperative throughout the course. According to the X-ray findings, the bone break happened in the proximal phalanx of the right ring finger, and it's a simple, non-wounded fracture.

AIMS & OBJECTIVES

This study evaluates the effect of *Murivenna* bandaging and internal administration of *Ayurveda* medicines on the management of simple bone fractures. A simple fracture occurred in the proximal phalanx of the right ring finger.

MATERIALS & METHODS

Case history: A moderately built 22-year-old male patient with no relevant medical or surgical history came to my OPD in October 2023. He had swelling on the right-hand ring finger and palm after a fall from the bike on the same day. He visited a modern hospital and took an X-ray of the right palm, which revealed a simple fracture on the ring finger of the right hand.

History: H/O fall from the bike on the same day but have no other medical or surgical history.

Family history: Nothing Significant.

Personal history:

Bowel: Regular

Appetite: Good

Micturition: 2 to 3 times/day

Sleep: Sound

Hypertension: No

Diabetes: No

Smoking: No

Alcohol: No

General Examination

Pallor: Negative

Oedema: Right palm and ring finger

Cyanosis: None

Tenderness: None

Pulse: 80/min

BP: 140/90 mm of Hg

Systemic Examination

Respiration: Chest & Throat clear

CVS: S1, S2 heard.

Bowel sounds: Positive

CNS: Well oriented

Abdomen: Soft

Treatment History: In this study, I selected and used medicines,

- 1) *Murivenna* Bandaging done: *Murivenna* was poured into the fractured site, and re-bandaging was done on the 7th and 18th days. The bandage was removed on the 30th day.
- 2) *Mustadi Marma Kashayam* 15 ml BD with 45 ml lukewarm water.
- 3) *Ganda taila* soft gel capsule 1 BD.

4) *Lakshadi Guggulu* tablet 1 BD.

DISCUSSION

Acharya Sushruta described *Bhagna Chikitsa* (management of fractures), signs and symptoms, bone-related disorders, correctly identified injuries, optimal bone healing features, and local and internal therapies. Traumas like falls, car or bike accidents, or sports injuries usually cause a bone fracture or broken bone. Some simple bone fractures can be effectively managed with Ayurvedic medicines. Acharya mentioned some medicines for *Asthi Vardhana* that support bone and bone healing.

Murivenna was bandaged on the same day with the support of a wooden squint for immobilization. *Murivenna* was poured into the fractured site daily, and re-bandaging was done on the 7th and 18th days. The bandage was removed on the 30th day. The patient's condition improved, and the fracture healed. Within 3 to 4 days, the patient got 50% relief from pain and swelling. I continued the same treatment of *Murivenna Parisheka* on the bandage and the internal medications.

Nowadays, most fractures are surgically managed, and closed reduction and cast immobilization remain essential treatment options for proper healing and to avoid further complications. Conservative Ayurvedic management for fracture promotes healing with adequate follow-ups and care. Thus, the wooden splint bandage and *Murivenna* were highly influential for the structural and functional restoration of the affected hand without any complications.

Murivenna

Murivenna Thailam is a medicated Ayurvedic oil, well-known for its anti-inflammatory, pain-relieving and analgesic properties, which offer absolute remedy for the treatment of inflammation caused by arthritis, sprains, fractures, muscle cramps, dislocations, and other injury-related conditions. *Murivenna* comes from two Malayalam words, 'Muri / Murviu', which means 'Wound' and 'Enna' means 'Oil'.³

The ingredients of *Murivenna Taila* are *Tambula patra* (Piper betle), *Shigru patra* (Moringa oleifera), *Ghrta kumari* (Aloe barbadensis), *Paribhadra*

(*Erythrina ariegate*), *Karanja patra* (*Pongamia glabra*), *Palandu* (*Allium cepa*), *Madangandhi* (*Spermaoce articularis*), *Shatavari* (*Asparagus racemosus*), *Kanjika* (Fermented rice liquid), *Narikela taila* (Coconut oil – *Coco nucifera*), Water.⁴

Musthadi Marma Kashaya

The *Musthadi Marma Kashaya* is an *anubhootha yoga* and Ayurvedic Proprietary Medicine. The significant benefits are Fractured Bones, Dislocated Shoulder, Trauma, Sprain, *Marma Abhighata* (injury to vital points), inflammation, degenerative joint diseases, Osteoporosis, etc.⁵

Ingredients of *Mustadi Marma Kashaya* are *Musta* (*Cyperus rotundus*), *Vasaka* (*Spermaoce hispida*), *Mridukunjika* (*Physalis minima*), *Lonika* (*Portulaca oleracea*), *Sakralatha* (*Cardiospermum halicacabum*), *Bala* (*Sida cordifolia*), *Vilwa* (*Aegle marmelos*), *Bakuchi* (*Cullen corylifolium*), *Dhanyaka* (*Coriandrum sativum*), *Kutaja* (*Holarrhena pubescens*), *Vidanga* (*Embelia ribes*), *Brihati* (*Solanum anguivi*), *Dusparisa* (*Tragia involucrata*), *Sariva* (*Hemidesmus indicus*), *Parushaka* (*Grewia asiatica*), *Nimba* (*Azadirachta indica*), *Kuruta* (*Pergularia daemia*), *Jati* (*Myristica fragrans*), *Rasna* (*Alpinia galanga*), *Madhukam* (*Glycyrrhiza glabra*), *Jiraka* (*Cuminum cyminum*), *Draksha* (*Vitis vinifera*), *Talisapatra* (*Abies spectabilis*), *Lavanga* (*Cinnamomum verum*), *Tejovati* (*Celastrus paniculatus*), *Gunja* (*Abrus precatorius*), *Shunti* (*Zingiber officinale*), *Lavanga kusuma* (*Syzygium aromaticum*), *Ela* (*Elettaria cardamomum*), *Arka* (*Calotropis gigantea*), *Tripadi* (*Desmodium triflorum*), *Dhanavalli* (*Naravelia zeylanica*), *Vishnu kranti* (*Evolvulus alsinoides*), *Mandukaparni* (*Centella asiatica*).⁵

Ganda Taila soft gel capsule

The soft gel capsule of *Ganda Taila* is the easy to edible form of *Ganda Taila* classical preparation. So, I preferred the soft gel capsule to take the medicine internally. The expected benefits and uses of *Ganda Taila* are that it promotes the strength of bones and joints, helps to decrease pain and stiffness, aids in reducing strain and sprain, favours fast healing of fractures, diminishes the chances of recurrent injuries

by strengthening the whole body, and Balances the Vata and Pitta Dosha in the body.⁶

The ingredients of Ganda Taila are Ajmod (A medicine or an agent which destroys or suppresses the growth of bacteria), *Devdaru* (used to reduce the symptoms of fever, pain and swelling with an anti-inflammatory response, drugs which inhibit bacterial growth), *Manjishta* (medicines which can lead to pain alleviation without affecting conscious levels, drugs which aid in swelling reduction following an injury, a substance that can inhibit the oxidising effect of free radicals in living cells), Liquorice (medications used to reduce swelling after an injury, agents or medicine that acts on the immune system to modulate immunity, agents which are helpful against microbial growth and actions), and Sesame Oil (agents or substances that are used to suppress inflammation (swelling), agents used for the treatment of fevers, agents, which help to reduce oxidative stress, by scavenging free radicals drugs used to eliminate microbial pathogens or inhibit their growth).⁶

Lakshadi Guggulu

Lakshadi Guggulu is a poly herb containing six different ingredients⁷. The ingredients are *Laksha* (*Laccaria laccata*), *Kakubha* (*Terminalia arjuna*), *Nagabala* (*Grewia hirsuta* Vahl.), *Asthi shrinkhala* (*Cissus quadrangularis* Linn.), *Ashwagandha* (*Withania somnifera* (L.) Dunal)⁸ and *Guggulu* is the primary ingredient of *Lakshadi Guggulu*.⁷ In Ayurvedic formulation, *Lakshadi Guggulu* is a solid dosage dispensed as tablets.⁸

The therapeutic effects of *Lakshadi Guggulu* are in treating bone illnesses like fractures, low bone density, and joint pain.⁹ Un-complicated & new cases of osteoarthritis can also be managed using *Lakshadi Guggulu*.¹⁰ *Lakshadi Guggulu* contains the ingredients mentioned above to help in calcium deposition, promoting bone healing and reducing osteoporosis.¹¹

Patient's perspective

The patient was delighted with the treatment, benefits, and improvements in his symptoms.

RESULT

	First follow-up On 7 th day	Second follow-up On 18 th day	Third follow-up On 30 th day	Fourth follow-up On 37 th day
Pain	50% Reduced	75% Reduced	Absent	Absent
Tenderness	Reduced	50% Reduced	Absent	Absent
Swelling	50% Reduced	75% Reduced	Absent	Absent
Re-bandaging	A wooden splint was kept, and gauze bandaging was done. <i>Murivenna</i> was poured. The neurovascular status of the affected finger was satisfactory.	A new wooden splint and gauze bandaging was done tightly with <i>Murivenna</i> . <i>Murivenna</i> was poured. The neurovascular status of the affected finger was satisfactory.	Bandage removed. The neurovascular status of the affected finger was satisfactory.	The range of finger and wrist movements came to normal.
Advice	Continue internal medicine and external pouring of <i>Murivenna</i> .	Continue internal medicine and external pouring of <i>Murivenna</i> .	He can do his activities with the hand with care.	He advised him to continue his regular work and activities.

CONCLUSION

This case study reveals a patient with simple bone fractures, which we can quickly treat with our Ayurveda management. In this patient, the ring finger of

the right hand was cured entirely through Ayurveda management and internal medications in 30 days.

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