WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 8.453
Volume 14, Issue 9, 2176-2185. Review Article ISSN 2277–7105

CHIKITSA OF ASTHIBHANGA AND SANDHIMOKSHA ACCORDING TO AYURVEDA - A REVIEW

Dr. Divya Deepak[1]* and Dr. Pratmesh Karpe[2]

[*1]HOD Dept. of Shalya Tantra, Prof. Abhilashi Ayurvedic College and Research Institute Chail Chowk, Mandi (Abhilashi University) Himachal Pradesh.

[2]Associate Professor, Dept. of Shalya Tantra Gomantak Ayurvedic Mahavidyalaya and Research Centre Shiroda – Goa.

Article Received on
29 March 2024,

Revised on 18 April 2025,
Accepted on 19 May 2025

DOI: 10.20959/wjpr20259-36688

***Corresponding Author**
Dr. Divya Deepak
HOD Dept. of Shalya Tantra, Prof. Abhilashi Ayurvedic College And Research Institute Chail Chowk, Mandi (Abhilashi University) Himachal Pradesh.

ABSTRACT

A fracture is a crack or rupture in the body's bones. These are typical in those who do sports or stunts. Low bone density increases the risk of fracture. Traumatic events like injuries, accidents, or fights cause them. The bone break produces intense pain, inflammation, numbness, and tingling. It may potentially cause paralysis. The bone should be treated quickly if it is fractured. Ayurveda promotes bone strength and well-being to promote rapid mending of fractures. The goal of this research is to examine the current ayurvedic drugs that have been shown to be beneficial in the treatment of fractures. Several sources were used to acquire the material, including review articles published in various publications that had keywords such as fracture, Asthi, Bhagna, ayurveda, hematoma, and so on. The information was also gathered from the Internet. Ayurveda provides natural methods for quick fracture recovery. Various ayurvedic products have been produced that help in the acceleration of the healing process with minimal negative effects as compared to conventional medical treatment. The mending of a fracture is a complicated physiological action that occurs in four stages that overlap: hematoma development, swelling, healing, and remodeling. It is a time-consuming procedure, and modern medication has several negative side effects. It is shown in this research that the use of ayurvedic medications for treating fractures may shorten the healing time while simultaneously increasing bone density.

KEYWORDS: Fracture, Bone, Accident, Swelling, Healing, Hematoma, Density.

INTRODUCTION

The phrase "Ayusho Veda: Iti Ayurveda" Ayurveda is the term for "life science." It is a medical system that emphasises balance in one's life, right thinking, a healthy diet, active lifestyle, and the use of herbs in addition to the treatment of sickness. The Upaveda of Atharva Veda, Ayurveda, is rich in asthangas. Shalya tantram is one of these asthangas and focuses mostly on orthopaedics and surgical parts of the body. Even today, the surgical techniques and expertise that have been practised and used for thousands of years are still beneficial. Orthopaedics is the treatment of fractures and dislocations as a distinct medical specialty. Orthopaedic care is covered under Shalyatantram in Ayurveda, and the term "BHAGNA CHIKITSA" is used to describe the ailment. In-depth descriptions of the Bhagna chikitsa can be found in Ayurvedic books. The Sushrut Samhita's most systematic and scientific method Acharya Sushruta treated bone and joint problems in a very scientific way, despite the absence of modern medical innovations like radiography and anaesthesia at the time. It is admirable that many of his therapy tenets remain valid after countless ages. In Nidana sthanam, Acharya Sushruta discussed bone and joint injuries and how to treat them in Chikitsa sthanam. Different manipulations have been discussed to decrease fractures with displacement and joint dislocation and return them to their natural positions. In-depth descriptions of both general and particular treatments for various types of joint dislocation and fracture are provided by Acharya Sushruta. Bhagnasthapna (reduction), Bhagnasthireekarana (retention), and punerchestitapracharam (rehabilitation) are the three main tenets of fracture treatment.

Definition of fracture: Bhanj Aabhanjane, according to Ayurveda, means "To Break." Modern definitions of a fracture include "a break in a bone's surface, either across its cortex or through its articular surface."[1]

FOLLOWING CAN BE CONSIDERED AS CAUSE FOR A FRACTURE

1. Sudden and large forces such as road accident etc.
2. Chronic or repetitive force such as prolonged standing.
3. Natural resistance of bone is eroded by diseases such as tumour, Bone T.B.

General symptoms of fracture

As said by Acharya Sushruta-

1. Swayathu Bahulyam.
2. Sparsa asahishnutwam.
3. Avapeedya manae sabda.
4. Vividha Vedana.
5. Savasu Avasthis na sarma labha

Following can considered as the clinical features of a fracture

Pain is a subjective symptom that is almost always the first and most significant one.

1-Swelling - This is brought on by medullary blood haemorrhage and soft tissue injury. For some unknown reason, swelling occurs more frequently in fractures than in dislocations.

2-Deformity - Patients who have fractures that have displaced also exhibit deformity.

3-Inability - To use the limb or part that is injured.

4-Crepitus – This unusual gating sensation is caused by friction between the ragged surfaces of the broken shards.

Classification of fracture

Acc. To Acharya Sushruta - Two types Bhagna

1. Fracture (Kandbhagna) 2. Dislocation (sandhimoksha)

Two types of fractures are classified according to Acharya Sushruta.

1. Fracture (Kandbhagna)[2]

S.No.	Kandbhagna types
1	*Karkataka*
2	*Asvakarna*
3	*Curnita*
4	*Pichita*
5	*Asthichalitha*
6	*Kandbhagna*
7	*Majjanugatha*
8	*Atipatita*
9	*Vakram*
10	*Patita*
11	*Chinna*
12	*sputita*

2. Dislocation (sandhimoksha)

S.No.	Sandhimoksha types
1	utpistha
2	vishlistha
3	vivarthita
4	avksipta
5	atiksiptha
6	triyakshiptha

As per modern medicine fracture can be classified as follows

1. Simple
2. Compound

Based on how far the fracture line extends

1. Incomplete—it only affects a single bone cortex or surface.
2. Complete - In this case, the entire bone and the cortices are fractured. It could be either displaced or not.

Based on the pattern of the fracture[3]

1. Linear fractures, which can be spiral, oblique, or transverse.
2. Comminated: A fracture with more than two fragments.
3. Segmented: A fracture that can be divided into pieces.
4. Bone loss, which may be a 50%, more than 50%, or full loss of bone.

Atypical fracture

1. Greenstick – it is seen exclusively in children. Here bone is elastic and usually bends due to bucking or breaking of one cortex when force is applied.
2. Impacted – here the fracture fragments are impacted into each other and are not separated and displaced.
3. Stress or fatigue- it is usually an incomplete fracture commonly seen in athletes and in

bone subjected to chronic and repetitive stress.

4. Pathological – it occurs in diseased bone and is usually spontaneous.

5. Hairline – it is a very fine break in the bone that is very difficult to diagnose clinically. CT scan is better option to diagnose.

6. Torus- it is a buc**kling of outer cortex.**

INVESTIGATIONS IN FRACTURE[4]

1. The earliest and most used diagnostic method for fractures in radiography is the X-ray. Two views, anterior and posterior, are necessary. Depending on the clinical scenario, an oblique view and other views may occasionally be necessary.

2. CT scans are useful for locating loose bodies in joints and finding fractures of the head, pelvis, and spine.

3. MRI - It aids in locating ligament and soft tissue damage.

MANAGEMENT OF FRACTURE

Restoring the anatomy to normal or as close to normal as feasible is the aim of fracture management. The right medical care is not that which though; it is that which effectively manages the disease being treated and halts the sequelae of a new one. A new distembe immediately follows the replacement of a specific one.

The "father of surgery," Acharya Susrutha, described how to treat a fracture in the following way

*A fracture that is hanging down but depressed should be raised. An intelligent physician should set all dislocation, fracture, whether fixed or immovable, by the mode of reduction known as traction pressure, compression, and bandage.

* In the event of a lowered fracture, it should be reinstated upward.

* In the case of an elevated and fractured joint, it should be reduced by pressing down.

Bandage

After proper reduction Sushruta advises to proper bandaging of fracture site. He explained about 14 types of bandages in vranalepna bandhana Vidhi Adhyayan of sutrasthanam as given below.

S.No.	Bandha	Modern name	Site
1	*Kosa*	Sheath bandage	Thumb
2	*Dam*	Loose bandage	Sambhadhanga
3	*Syasthika*	Figure 8	Joint, bhru, karna, tala
4	*Anuvelitha*	Spiral bandage	Sankha
5	*Pratoli*	Sheath with multiple pores	Griva, medhra
6	*Mandala*	Round bandage	Vrattanga
7	*Sthagika*	Stumb bandage	Angushts,anguli, medhranga
8	*Yamaka*	Double bandage	Yamala vrana
9	*Khatva*	Fourtailed bandages	Hanu,sankha,ganda
10	*Chinna*	Eye bandage	Apanga
11	*Vibhanda*	Many tailed bandage	Prstha,udara,ura
12	*Vitana*	Cephalic bandage	Murdh
13	*Gophana*	T-bandage	Cibuka,nasa,ostha,amsa
14	*Panchangi*	Five tailed bandages	Jatrurdhva

Splint - sushruta advise to use bark and madhuka, udumbra, asvatha, palasa, kakubha, bamboo, vata as splints.

Lepa - It should be made up of manjistha, madhuka, red sandalwood, sadadauta ghrit.

Changing bandages

✓ Once a week in cold weather

✓ Every fifth day in temperate weather

✓ Every fourth day in hot weather

✓ Bandage should be neither too loose nor too tight.

Progress of fracture

Winter and mildly deranged dosha in young people are easily treatable.

Age at which the fracture will mend

Young person 1 month.

Middle-aged person 2 month.

Old 3 months old.

Medicines

✓ Parisheka - nyagrodhadi kashayam, panchamula boiled milk, chakra tailam, Aama tailam.

✓ panchakarma like anuvasana vasti, nasya masthiskyam (shirovasti)

✓ lepam with seetha dravya, sandhaniya gana dravya

✓ Gandha tailam

✓ trapushadi tailam

✓ Swadanum

Pathaya and Apathya in fracture

Pathya - saali variety of rice, milk, ghee, butter, nutritious food

Apathyam: acids, pungent, spicy food, alkaline foods, and substances, sex, exercises, exposure to heat(sun).[5]

Fracture management acc. to. Modern surgery A fracture can be managed with help of —4R —

1. Resuscitation
2. Reduction
3. Retention
4. Rehabilitation

1. Resuscitation - If the patient is in shock after a fracture, this treatment is given high priority in order to save the patient's life.

2. Reduction - If the fracture is displaced, reduce the fracture fragments. In most cases, general anaesthesia is used. It fits under the following categories:

i)-One-way reduction

ii)-Permanent diminution

iii)-Open reduction

Closed reduction: is only used for straightforward fractures. Traction and the countertraction approach are used after the technique. It is a blind technique that requires talent and knowledge.

Continuous reduction • E.g., Gallows traction in fracture shaft of femur in children If the earlier methods fail.

Open Reduction: After exposure, the fracture is reduced directly and held in place with a screw, an A.O. plate, an intramedullary nail, and a K wire.

4. Retention - After reduction, the fracture fragment must be kept in place until the fracture units are complete; otherwise, it is prone to displacement. The methods listed below can help with retention.

i)-Parisian plaster

ii)-Cast or slab

iii)-A useful cast brace

4. Rehabilitation - Through physiotherapy and exercises, rehabilitation aims to help the fractured limb or part regain its normal range of motion.

Management of fracture in Ayurveda

Equipment needed for bandaging -

Splint made of bamboo or wood - 4 (according to size of patient hand)

Cotton swab - 2

Cotton thread - 3

Crepe bandage - 1

Sling - 1

Scissor-1

Mode of bandaging

Marmanigulika grand with ghee (a traditional medicine of Nangelil family) Karpoormarmani tailam application (a patent medicine of Nangelil pharmacy)

1. Karpoor marmani tailam has to be applied in affected area
2. Traction along the forearm & each finger
3. Reduction of fractured bone
4. Application of marmanigulika lepam
5. Splint bandage
6. Immobilization with sling

Bandage has to be done in case of patient who are not able to visit hospital frequently for rebandage.

Internal medicine

• Gandha tailam

• Painalil capsule (a patent medicine of Nangelil pharmacy)

• Calshalil tab (a patient medicine of Nangelil pharmacy)

• Balaristham

• Mahisha dravakam

• Murivenna for application in wound Rehabilitation

• To restore the normal movements and strength to shattered bone & muscle, massage with karpoor marmani tailam & swedanam for seven days following the correct healing of the fractured bone.

• The bandage should be examined for edoema, softening, tightness, and looseness.

• The sling has to be examined, especially for slackness and pudding near the neck.

• Hand elevation and retrograde massage from the tip of the finger to the palm should be used to treat dependent oedema.[6]

Exercises

1. Active wrist mobilisation with the forearm positioned over the table in mid-pronation.
2. Passive wrist mobilisation after seven to ten days while the affected hand is resting on a table edge.
3. The reverse Indian salute (palmer flexion) and the dorsiflexion salutation
4. Exercises for supination and pronation
5. Exercises to regain muscle strength with a ball
6. Passive stretching exercises using a wand or the collateral hand in Galeazzi fracture cases where the fracture has self-arrested.

CONCLUSION

The science of ayurveda contains a wealth of information regarding the treatment of fractures and dislocations.Ayurveda provided a number of therapeutic approaches for the treatment of dislocation and bone fracture under the name of Bhagna Chikitsa. While modern science places an emphasis on surgical and para-surgical techniques to treat fractures and dislocations, Bhagna Sthapana, Bandhana, and Sukhchestaprasara are significant modalities that aid in managing fractures and dislocations. Bony fractures or dislocations can be brought on by trauma, compression, compression from the teeth of violent, gentle animals, falls, job dangers, unexpected jerks, and traffic accidents, among other things. Due to the rising frequency of these circumstances, both traditional and contemporary approaches must be used to manage these kinds of problems.

REFERENCES

1. Ambikadatta Shastri, Ayurvedatatvasandeepika Hindi commentary, Sushruta Samhita, Chikitsa Sthana, Chapter 3/70, Reprint 2nd edition, Chaukhamba Sanskrit Sansthan, Varanasi, 2014; 17-19.
2. Raja Radha Kant Deva, Sanskrit Dictionary, Shabdkalpadruma, 3rd edition 1967, Chaukhamba Sanskrit Sansthan Varanasi, 1985; 432.
3. Monier Williams, Sanskrit English Dictionary, 4th edition 1989, Motilal Banarasi Das publishers New Delhi, Re-print, 1990; 389.

4. Ambikadatta Shastri, Ayurvedatatvasandeepika Hindi commentary, Sushruta Samhita, Nidana Sthana, Chapter 15/4, Reprint 2nd edition, Chaukhamba Sanskrit Sansthan Varanasi, 2014; 377.
5. Knight KL. Cryotherapy in sports injury management, Int Perspect Physiotherapy, 1989; 4: 163.
6. Knight KL. Cryotherapy in sports injury management, Int Perspect Physiotherapy, 1989; 4: 163-185.