

## Case Study of Left Humerus Fracture with Its Management through Ayurvedic and Modern Aspects

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### Abstract

Fracture of bones and their treatment was first mentioned in Sushrut Samhita. This study helps in management of Asthibhagna according to ancient times and simultaneously comparing with accepted modern medicine.

**Keywords** – Asthibhagna, Fracture of LT humerus, Bone graft

### Introduction

Fracture of bones and their treatment has first mentioned in Sushrut samhita. This study helps in management of Asthibhagna according to Ayurveda & simultaneously comparing with accepted modern science.

**भग्ननिरुक्ती** – “अस्थिविश्लेषोऽत्र भङ्गोऽभिप्रेतः।”

(मा.नि.मधुकोषटीका)

### Causes

“पतनपीडनप्रहाराक्षेपणव्यालमृगदशनप्रभृतिभिरभिघातविशेषैरनेकविधमस्थ्नां भङ्गमुपदिशन्ति॥” (सु.नि.१५/३)

Breaches in movements of bones are several types according to the nature of Injury such as by slip , pressure, striking , excessive movement, bites of animals.

### Types

1. कांडभग्न ( Fracture)

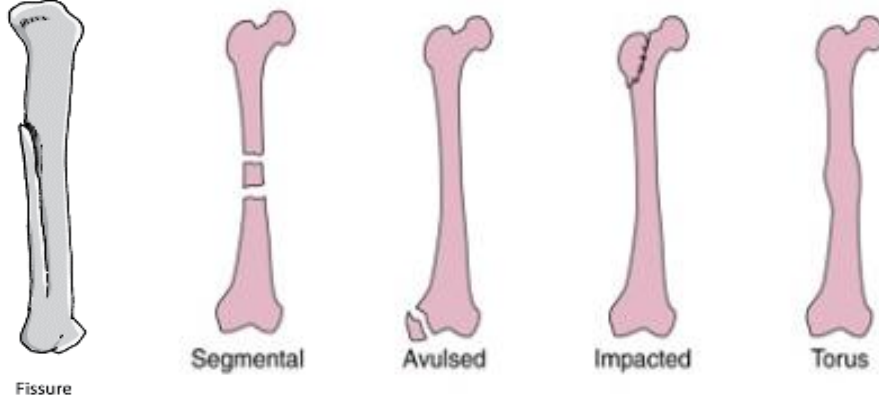
## 2. संधिमुक्त( Dislocation)

### Fracture

- कर्कटकम्भग्न - (Fracture with Haematoma)
- अश्वकर्णभग्न - (Oblique Fracture)
- चूर्णितभग्न - (Comminuted Fracture)
- पिचिचतम्भग्न - (Compression Fracture)
- अस्थिच्छलितभग्न - (Subperiosteal Fracture)
- काण्डभग्न - (Transverse Fracture)
- मज्जानुगतम्भग्न - (Impacted Fracture)
- अतिपातितभग्न - (Complete Fracture)
- वक्रभग्न - (Green Stick Fracture)
- छिन्नभग्न - (Incomplete Fracture)
- पाटितभग्न - (Cracked Fracture)
- स्फुटितभग्न - (Fissured Fracture)

### Types of Bone Fractures





## Line of Treatment

१. **स्थानानयन** – Reduction or setting of bone

“अवनामितमुन्नहयेदुन्नतंचावपीडयेत्।  
आंछेदतिक्षिप्तमधोगतंचोपरिवर्तयेत्॥” (सु.चि.३/१७)

One should raise up the slipped down, press down the elevated one, retract the excessively thrown out pull up that which has moved below.

“आंछनैःपीडनैश्चैवसंक्षेपैर्बन्धनैस्तथा।  
संधिशरीरेसर्वास्तुचलानप्यचलानपि।  
एतैस्तुस्थापनोपायैः स्थापयेन्मतिमान्भिषक्॥” (सु.चि.३/१८-१९)

All joints, movable or immovable in the body should be set to their normal position by these setting procedures – traction , compression , extension and bandaging by the wise surgeon.

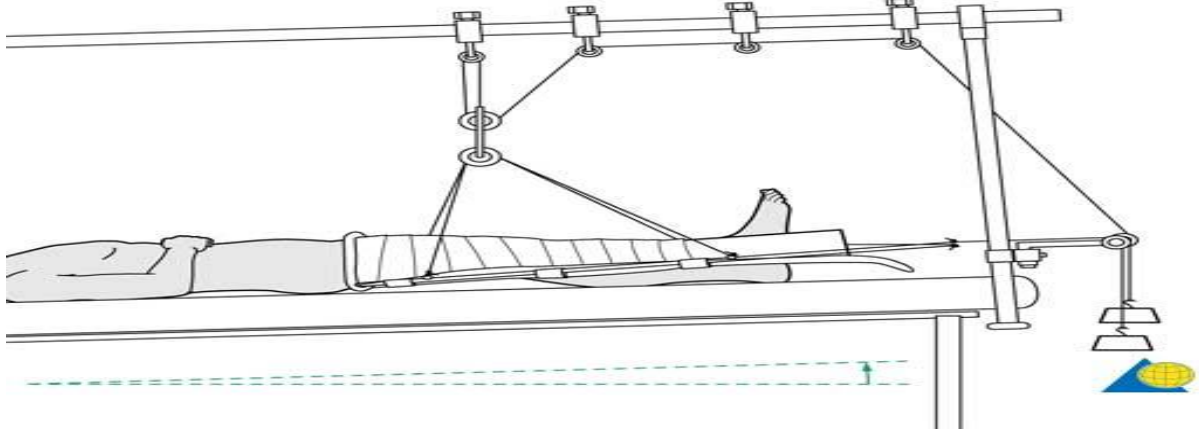
२. **स्थिरीकरण** – Fixation and Immobilization

(कुशाबंधन) - “मधुकोदुम्बराश्वत्थपलशककुभत्वचः।  
वंशसर्जवटानांचकुशार्थमुपसंहरेत्॥ (सु.चि.३/६)

Barks of Madhuka ,Udumbara , Asvattha , Palasa , Arjuna , Vansha, Sarja and Vata should be collected for use as splint.

(कपाटशयन) – “अथजङ्घोरुभग्नानांकपाटशयनंहितम्॥  
कीलकाबन्धनार्थंचपच्चकार्याविजानता॥” (सु.चि.३/४८)

For those having fracture of leg and thigh wooden cot is suitable. In this, for stabilising , five nails are provided so that there should not be any movement in the affected part.



### ३.कर्मनुवर्तन

“सुखचेष्टाप्रचारंचसंहितंसम्यगादिशेत॥“ (सु.चि.३/७०)

Fracture should be known as unified well when it is undistorted with extension of the part while activities and movements are comfortably taken up.

- उष्णोपचार – Fomentation
- अभ्यंग - Massage
- व्यायाम – Exercise.

### आभ्यंतरचिकित्सा

“गृष्टिक्षीरंससर्पिष्कंमधुरौषधसाधितम्” ॥

शीतलंलाक्षयायुक्तंप्रातर्भग्नःपिबेन्नरः॥” (सु.चि.३/१३)

The patient of bhagna should drink in the morning , milk of primiparous cow mixed with ghee, processed with sweet (kakolyadi) drugs, well cooled and added with laksa.

### Case Presentation

- Patient – XYZ

- **Age** – 21yrs
- **Sex** – M
- **Occupation** – B.A student
- **Date** – 01/02/2018.

### Patient History

No H/O DM/HTN/ASTHAMA  
RTA on 22/01/2018 & K/C/O Displaced fracture M/3 of Left humerus. Before 10 days he treated by bone setter(हाडवेद्य).

### Present illness

K/C/O Displaced fracture M/3 of Lt humerus with deep wound 3x4 cm over posterior aspect of Left arm.

### Local Examination –

Swelling at Left arm  
Deep wound 3x4 cm over posterior aspect of left arm.  
Redness present  
Bleeding present

**On Examination P-** 72/min & BP – 128/72mmofHg.

**Systemic Examination** NAD.



Displaced fracture M/3 of Lt humerus



Deep wound over posterior aspect of Lt Arm

Hb- 11 gm%  
WBC – 7800 /cmm  
RBC – 3.99mil/cmm  
PLT- 257000/cmm  
BSL (F) – 79mg/dl  
BSL(PP)- 100mg/dl  
BT- 2min 20sec CT- 5min.  
HIV &HbsAg – Negative.

### Treatment

Firstly hanging plaster (Kushabandhan) done to immobilize the fracture site for 25 days & for wound healing window was made on the plaster at the site of wound for dressing purpose. Dressing of the wound done with Vranashodhak tail for 8 days then with Vranaropak tail till wound heals.

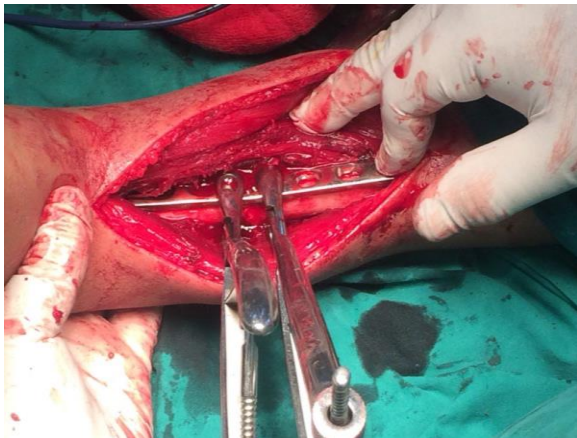
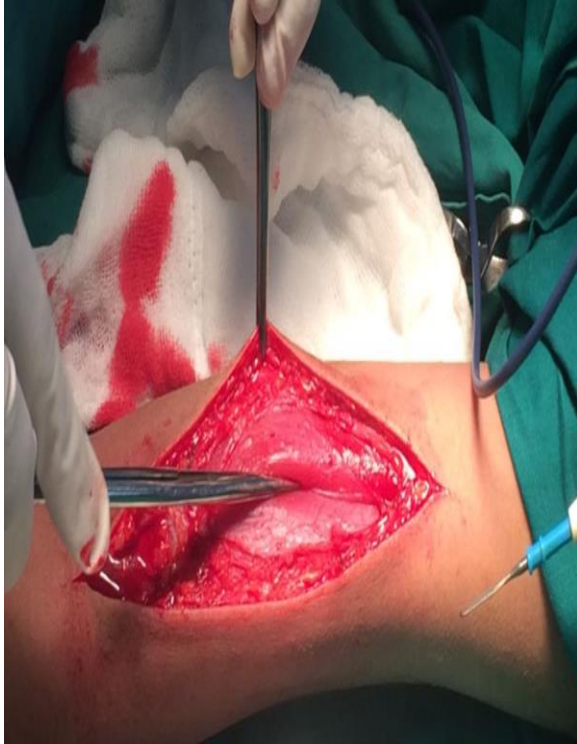


Xray with plaster



Healing Wound

After healing of wound on 28/02/2018 patient posted for ORIF under Regional block with short GA. Supraclavicular block given with Lox 2%. Anterolateral incision taken about 6 inch at fracture site and screwplate fixation done. 3 inch incision taken on left iliac crest to harvest the bone for bone graft. Both wounds are closed with mattress stitches.



Screwplating done

Incision on Left iliac crest to harvest the bone



Skin closure with mattress stitches



After ORIF

### Postoperative Treatment

- Shoulder support given
- Tab Pan 40 mg 1BD (BF)
- Tab. Clavam 625 mg 1 BD (AF)
- Tab. Flexon 1TDS (AF)
- X 5 days.
- अस्थिपोषकवटी 2BD(AF)
- X15 days.

**Observations** Alternate day up to suture removal wound was observed.





After 10<sup>th</sup> day of Surgery both sites (Left arm and Left iliac crest stitches removed

## Results

Asthibhagna management provides significant relief.

## Conclusions

In this case study using Ayurvedic concepts we treated patient in Modern way.

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