

A Case Study: Ayurvedic Bhagna Chikitsa in Traumatic Fracture

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Abstract

Introduction: Maharshi Sushruta is known for his pioneering operations, techniques and for his influential treatise 'Sushruta Samhita'. Sushruta Samhita is the main source of knowledge for uplifting surgical branch. Maharshi Sushruta contributed Shashti Upkrama for management of Vrana. Besides trauma involving general surgery, Sushruta gave an in-depth account of the treatment of 12 varieties of fracture and six types of dislocation. This continues to amaze today's orthopedicians.

Case Report: A 65 yrs old male patient having H/O - Traumatic injury to rt foot on 28 Oct due to slippage in drainage system, he was diagnosed with Displaced toe fracture (Distal phalanx) with avulsion of rt toe nail.

Conclusion: With the help of Maharshi Sushruta's principle this case study aims to report the successful management of Asthibhagna with fruitful result.

Keywords: Asthibhagna; Traumatic Fracture; Ayurvedic Management.

INTRODUCTION

Maharshi Sushruta was pioneer of Surgery. He contributed Vrana Chikitsa, Sandhan Karma, Sangyahan, concept of Fracture and Dislocation with its management. By using his principles in this study management of Asthibhagna did. He mentioned the principles of traction, manipulation,

apposition, stabilization, and postoperative physiotherapy.

भग्ननिरुक्ती - "अस्थिविश्लेषोऽत्रभङ्गोऽभिप्रेतः।"

(मा.नि.मधुकोषटीका)

• Causes

"पतनपीडनप्रहाराक्षेपणव्यालमृगदशनप्रभृतिभिरभिघातविशेषैरने कविधमस्त्रांभङ्गमुपदिशन्ति॥" (सु.नि.१५/३)

• Types

- कांडभग्न (Fracture)
- संधिमुक्त (Dislocation)

• Fracture

- कर्कटकम्भग्न - (Fracture with Haematoma)
- अश्वकर्णभग्न - (Oblique Fracture)
- चूर्णितभग्न - (Comminuted Fracture)

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4. पिच्चितम्भग्न - (Compression Fracture)
5. अस्थिच्छलितम्भग्न - (Subperiosteal Fracture)
6. काण्डभग्न - (Transverse Fracture)
7. मज्जानुगतम्भग्न - (Impacted Fracture)
8. अतिपातितम्भग्न - (Complete Fracture)
9. वक्रभग्न - (Green Stick Fracture)
10. छिन्नम्भग्न - (Incomplete Fracture)
11. पाटितम्भग्न - (Cracked Fracture)
12. स्फुटितम्भग्न - (Fissured Fracture)

आभ्यंतरचिकित्सा

“गृष्टिक्षीरंससर्पिष्कमधुरौषधसाधितम्॥
शीतलंलाक्षयायुक्तंप्रातर्भग्नःपिबेन्नरः॥”

(सु.चि.३/१३)

According of Ayurvedic Management

1. स्थानानयन - Reduction or setting of bone

“अवनामितमुन्ह्येदुन्नतंचावपीडयेत्।
आंछेदतिक्षिप्तमधोगतंचोपरिवर्तयेत्॥”

(सु.चि.३/१७)“

“आंछनैःपीडनैश्चौवसंक्षेपैर्बन्धनैस्तथा।
संधिशरीरेसर्वास्तुचलानप्यचलानपि।
एतैस्तुस्थापनोपायैः स्थापयेन्मतिमान्भिषक्॥”

(सु.चि.३/१८-१९)

2. स्थिरीकरण - Fixation and Immobilization

(कुशाबंधन) - Used as Splint

“मधुकोदुम्बराश्वत्थपलशककुभत्वचः।
वंशसर्जवटानांचकुशार्थमुपसहरेत्॥”

(सु.चि.३/६)

(कपाटशयन) - Stabilizing for those having fracture of leg and thigh

“अथजड्,घोरुभग्नानांकपाटशयनंहितम्॥
कीलकाबन्धनार्थंचपच्चकार्याविजानता॥”

(सु.चि.३/४८)

3. कर्मानुवर्तन - Rehabilitation

“सुखचेष्टाप्रचारंचसंहितंसम्यगादिशेत्।”

(सु.चि.३/७०)

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

CASE PRESENTATION

Patient - XYZ

Age - 65yrs

Sex - M

Occupation - Retired person

Dated - 30/11/2023

A, 65-years-old Male patient having H/O - Traumatic injury to rt foot on 28 oct due to slippage in drainage system with C/O swelling to Rt lower limb with severe pain and pus discharge through rt toe with avulsed nail also suffering from restricted movements. Patient visited many orthopedic surgeons, then all advised for amputation of toe he refused for Toe amputation and after we explained him about good and bad scenario about his condition. He was admitted in S.G. Patel Hospital & Maternity Home for Conservative management of fracture management.

• Patient History

K/C/O DM & HTN since 30yrs

With regular Rx Tab Telmisartan 40mg 1OD

Tab Glycomet 1BD

• Present illness

K/C/O DM /HTN with H/O Displaced toe fracture (Distal phalanx) with avulsion of rt toe nail

• Local Examination:

Oedema at right lower limb

Raised rt foot temperature

Tenderness

Crepitus sound present at fracture site

Avulsed right toe nail

Redness present

Pus present

Slough present

Foul smell present

• On Examination:

Vitals with Local examination - Pulse - 88/ min & BP - 140/90 mmofHg.



Traumatic Injury to RT Toe



Nail Excision with Stay Suture



Investigation

1/12/2023	20/12/2023
Hb - 8gm%	Hb- 9 gm%
WBC - 10300/cmm	TLC- 7800
RBC - 4.5cells/cumm	RBC - 5.5cells/cumm
PLT- 4.19lcs	
BSL (F) - 61mg/dl	
BSL (PP)- 100mg/dl	
BT- 2min 20sec CT- 5min.	
Sr creatinine - 1.64	
Blood urea - 37 mg /dl	
HIV &HbSAg - non reactive	2/02/2024
Urine R/M-	Hb - 10.4 gm%
Pus cells- 1-2 hpf	WBC- 9700

Table Cont...

Epithelial cells 0-1 hpf	RBC - 6.00
RBCs - Nil	Plt - 4.19
Crystals - Nil	BSL(F)- 88 mg/dl
Others - Nil	(PP) - 128mg/dl

TREATMENT

Firstly Patient admitted in IPD of S.G. Patel hospital and Maternity Home New V.V. Nagar Anand Gujarat.

Limb elevation given with specific Investigation and Rt foot X-ray did. With continuous anti DM & anti HTN Rx with administration of

Ayurvedic Medicines	Allopathy Medicines
Samshamanivati 2 bd	
Punarnava mandoor 2bd	Tab Pan 40mg 1bd
VarunadiKwath 10ml bd	Tab Clavum 625 mg 1bd
Triphalaguggulu 2bd	Tab Zerodol SP 1bd
Mamejevaghanvati 2bd	Tab A to Z 1 od
PhalatrikadiKwath 10ml bd for 1 1/5months	Syrup Ironsip 1Tsf bd for 15 days

After that nail excision & wound debridement done under AAP. Avulsed part of bone fragment was removed with applying stay suture with Prolene 1-0 also gives Splint for immobilization at Fracture site on 1/12/2023. Daily dressing done with syringing with Betadine & H₂O₂. Slough formation and pus discharge continuously came out. And daily dressing with debridement also done upto 6/01/2024. on 7/0/2024 in cavity simple rubber drain kept for pus drainage purpose and alternate dressing did. After 2 weeks there is no pus collection & also granulating tissue occurs.

Then ON Rx for 3 months

Ayurvedic Medicines

Laghusutshekharras 2bd

Triphalaguggulu 2bd

Shatavari + Ashwagandha powder with milk bd

Punarnava mandoor 2bd

Samshanmanivati 2 bd

After Granulating tissue we do cavity packing with *Jatyadi Taila* as *Vranaropaka* property with alternate day dressing then this technique used same but dressing did 3 days in weekly.



DISCUSSION

Orthopedic infections affect the bones which lead to osteomyelitis and septic arthritis. Hence suitable wound management is a big deal in any type of wound, that can be post operative wound, traumatic fractured wound or diabetic wounds.

In this case study patient is a known case of diabetes hence prescribed medicines worked as antidiabetic, analgesics, antibacterial, antiarthritic, antiviral, anti-inflammatory, antiaging properties.

Externally *Jatyadi* taila used for cavity packing as well as daily dressing, ingredients of *Jatyaditaila*



With Fruitful Final Result

Local Examination - after 3 months

All cavity closed

No any deformity

No any Pus or Slough discharge

No any restricted movements present



Wound Healing

are *Shothahara*, *Vedanasthapana* and *Ropaka*. After IPD of patient, wound debridement and splinting done, daily dressing done upto granulating tissue occurs, this management takes 3 months for complete wound healing and rehabilitation of patient by using ayurvedic principle of *Asthibhagna*.

For any type of wound healing, healing property will enhance with suitable management and having some patience.

CONCLUSION

In this case study using Ayurvedic concepts we treated Displaced toe fracture (Distal phalanx) with avulsion of rt toe nail. Wound management followed by debridement of slough with avulsed nail excision, immobilization followed by splinting and proper wound healing ensured by boosting immunity with appropriate follow-up.

After confirming the diagnosis, all the treatments in this case were planned and executed, by strictly adhering to the Ayurvedic principles of *Bhagna chikitsa*. *Jatyaditaila* was prescribed for external application for cavity packing. *Sanshamani Vati*, *Triphala Guggulu*, *Punarnava Mandoor*, *Varunadi Kwath*, *Shatavari-Ashwagandha powder*, *Laghusutshekharras*, *Mamejevaghanavati Phalatrikadi Kwath* for orally. Various case study done on *Jatyaditaila* for its *Vrana Ropana* properties. All oral medicines prescribe with motive of analgesics,

antibacterial, antiarthritic, hypoglycemic, antiviral, anti-inflammatory, antiaging properties.

The strength of this particular case study is that despite being referred for Amputation, the patient was successfully treated by Ayurvedic management.

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