



# A Tongue-Tied Diagnosis: Teaching Points from a Tongue Type Calcaneal Fracture

Anthony Jourdan M.D.

Jesus R. Torres M.D. MPH

UCLA Health Emergency Department

## Introduction

- Distinct subset of calcaneal injuries<sup>1</sup>
- High complication rate**
- Early detection** is critical<sup>2</sup>

## Case Description

58 Year Old Female w/ no PMHx presenting for left ankle pain after a fall from a ladder 30 minutes prior to arrival. Endorsing pain to the left ankle and severe swelling. Denies paresthesias, back pain, neck pain, head strike, loss of consciousness. Does not take any medications daily including blood thinners.

## ED Initial Evaluation

BP 116/66

71 BPM

Pain Scale  
10/10

**Exam:** **Obvious deformity of the L ankle, tenderness to the left medial malleolus, forefoot, and calcaneus. Skin blanching and tenting noted, but intact. DP and PT pulses present.**

## ED Workup and Hospital Course

STAT ORTHO CONSULT  
FURTHER XR IMAGING

PATIENT TAKEN TO OR FOR  
DEFINITIVE MANAGEMENT



### Can't Miss Diagnosis

Prompt recognition by the ED physician is key to limb preservation

### Need for Definitive Management

Obtain Stat Ortho Consult for definitive surgical management and consider advanced imaging

## Teaching Points: Management of Tongue Type Calcaneal Fracture

### Concomitant Injuries

Evaluate for spinal fractures, hip/pelvic fractures, and proximal lower extremity fractures

### Temporizing Measures

If Orthopedics is unavailable, place patient in Bulky Jones Split or Posterior short leg ~20° of plantarflexion



## Differential Diagnoses

Maisonneuve  
Fracture

Ankle Joint Dislocation

Lisfranc Injury

Bi/Tri Malleolar  
Fracture

Achilles Tendon/Plantar  
Fascia Rupture

Spinal Fracture



## Case Discussion

- High energy axial load traumatic mechanism
- Superiorly displaced→ Achilles Contraction→pull of the gastroc-soleus complex<sup>2</sup>
- High risk of complications
  - Stat Ortho Consult Vs Temporizing Measures**
    - Bulky Jones vs Posterior Short in Plantarflexion

## Conclusions

- Prompt evaluation is key to prognosis.
- XR imaging confirms diagnosis
- STAT orthopedics consult if available
  - Temporizing measures**
- Associated injuries
- Surgical management is definitive



## References

1. Snoap T, Jaykel M, Williams C, Roberts J. Calcaneus Fractures: A Possible Musculoskeletal Emergency. *J Emerg Med*. 2017;52(1):28-33. doi:10.1016/j.jemermed.2016.07.085  
2. Chhabra, Neeraj, et al. "Tongue-type calcaneus fractures: A threat to skin." *The American Journal of Emergency Medicine*, vol. 31, no. 7, July 2013, https://doi.org/10.1016/j.ajem.2013.02.029.