Session Two: Trauma 1
Moderator: Timothy R. Daniels, MD

4:30 – 4:40 pm  
Jones Fracture Recurrence: Pray the Screw Doesn’t Break
J. Chris Coetzee, MD

What do we know?

1) More than 150 publications about Jones Fractures in past 5 years

2) Overall results are good, but there are issues.
   
   A) Non-union.

Reasons

   - Too small diameter screw – most common
   - Cannulated screw (cannulated reaming is OK)
   - Wrong decision-making.

Management

Most common salvage is revising the fixation with a larger, longer screw. I am a (fairly) firm believer cannulated screws should not be used for 5th MT fractures. Always use the largest diameter screw you can safely insert. It is very important to carefully tap the canal to prevent fracture, and ensure you can get the screw down.

B) Screw breakage

Always look for a cavus foot - that is the most common reason for failure of 5th MT fracture fixation. I, as a rule, do not correct the cavus as part of a primary ORIF. However, if there is a non-union or refracture, I will seriously consider it.

It is really difficult to remove the broken screw. Options are to use Bone marrow aspirate, cast, bone stimulator and hope it heals without removing the screw. Alternative is to remove the screw with a broken screw removal set, redo with another screw, bone graft etc.

There is also a place for a plantar plate in these revision situations.
Literature


First paper to look at cannulated screws critically:


There are several papers looking at failures

Granata JD, Berlet GC, Philbin TM, Jones G, Kaeding CC, Peterson KS Failed Surgical Management of Acute Proximal Fifth Metatarsal (Jones) Fractures: A Retrospective Case Series and Literature Review. Foot Ankle Spec. 2015 Jun 30 (1).


Size Matters!


Hindfoot alignment is critical!


NOTES