Common Pitfalls in Syndesmotic Fixation. A Critical Audit

Presenting:

Peter Stavrou, FRACS
Adelaide, SA, Australia

Additional Authors:
Panagiotis Symeonidis
Melick Chehade

Summary:
In an audit of all syndesmotic injuries treated at a level one trauma centre over a six year period, a 25% unplanned syndesmotic reoperation rate was identified. The type of fixation was not correlated with the failure rate. Three modes of failure are identified and discussed.

INTRODUCTION.
Syndesmotic injuries comprise up to 11% of all ankle injuries. Whereas the optimal fixation of syndesmotic injuries remains controversial, pitfalls in their management have predictably poor outcomes.

METHODS.
This is a retrospective study of all ankle fractures operated on at a Level one trauma centre over a six year period. All cases with syndesmotic fixation were classified and patients’ notes were reviewed. The timing of definitive syndesmotic fixation, the type of fixation (screw size and number, number of cortices) and the number of unplanned, syndesmotic-related re-operations were recorded.

RESULTS.
Fifty six patients with 57 syndesmotic ruptures were operated on during the study period. There were 16 unplanned re-operations in 14 patients (25%). Three reasons for reoperation were identified:
a) failure to diagnose the syndesmotic injury 8/16 (50%)
b) failure to achieve an anatomic reduction 4/16 (25%)
c) loss of reduction due to fixation failure 4/16 (25%)
The most common pitfall was the failure to identify the injury. The type of fixation was not correlated with the failure rate.

CONCLUSIONS.
Syndesmotic ruptures can be challenging in their diagnosis and management. In order to reduce the pitfalls in their treatment, adherence to basic diagnostic and operative principles can be more important than the type of fixation.