SESSION A
PAPER SESSION 3:
11:30 am – 12:30 pm
Soft Tissue Injury and Repair

Moderators:
Jonathan T. Deland, MD
New York, New York
Paul Hecht, MD
Hanover, New Hampshire

Session A – 11:30 – 11:37 am

Minimizing Peri-operative Complications Associated with Open Achilles Repair: The Results of a Prospective, Multi-center Investigation

Presenting:
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Summary:
The current investigation demonstrates that peri-operative wound complications, including deep infection, can be minimized in patients undergoing open Achilles tendon repair. However, a 4% incidence of venous thromboembolic disease was noted and warrants consideration of appropriate prophylactic measures.

Abstract

Background:
Advocates of Achilles tendon repair cite better functional results as well as a lower rate of re-rupture as potential advantages over non-operative treatment. However, peri-operative complications have led others to advocate closed management of these injuries. Wound complications and deep infection are of particular concern, with reported rates as high as 20% and 5%, respectively. The purpose of the current study was to assess the results of an operative protocol designed to minimize peri-operative complications, especially wound problems, in patients undergoing open Achilles repair.

Methods:
In this prospective multicenter study, one hundred consecutive patients underwent primary open repair of an acute Achilles tendon rupture at 3 different institutions. A standardized treatment protocol was used. Salient measures included a posteromedial incision, a posterior compartment release, a layered closure, no tourniquet, and 5 days of post-operative oral antibiotics. Post-operatively, patients were kept non-weight-bearing for 6 weeks with range-of-motion exercises beginning 2 weeks after surgery.
Results:
All patients were available for follow-up at an average of 24 weeks. There were 81 males and 19 females with an average age of 40 years. The overall complication rate was 6%. There were no deep or superficial wound complications, including infection, hematoma, or dehiscence. There were no nerve injuries. One patient sustained a partial re-rupture at 9 weeks post-operatively and was treated with cast immobilization. There was a 4% rate of venous thromboembolic (VTE) disease: two patients developed symptomatic, ipsilateral deep venous thrombosis and two additional patients developed pulmonary embolus (one requiring thoracotomy). Finally, one patient was diagnosed with superficial calf phlebitis treated without anticoagulation.

Conclusion:
Our data demonstrate that wound complications, nerve injury, and re-rupture can be minimized in patients undergoing open Achilles repair using the current protocol. However, the high rate of venous thromboembolic disease (4%) in our large series is concerning. Based on this, VTE prophylaxis should be considered when performing Achilles repair and patients should be educated about the symptoms and risk of this potential complication.