Return to Duty in Nonsurgical versus Mini Open Achilles Repair in Active Duty Military Patients

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INTRODUCTION: Expedient treatment and recovery from Achilles tendon ruptures is critically important for military members. Controversy still surrounds the optimal treatment of these injuries. Evolving techniques are improving outcomes and lowering complications. The purpose of this study was to evaluate the time to return to duty in active-duty military patients after nonsurgical treatment with functional rehabilitation versus surgery with the mini open technique for complete Achilles tendon ruptures.

METHODS:

A retrospective review of all unilateral complete Achilles tendon ruptures in active-duty patients was performed to identify patients treated nonsurgically with functional rehabilitation or with a mini open surgical technique between Jan 1, 2016 and December 31, 2020. Patients not compliant with postoperative protocol, lost to follow up, younger than 18 or older than 65 were excluded. Time to return to duty, rerupture, and other complications were compared between each cohort. Patients that left the military prior to unrestricted return to duty were not included in the time to return to duty analysis.

RESULTS:

There were 30 patients in the mini-open cohort and 22 in the nonsurgical functional rehabilitation cohort. There was no difference in time to return to duty between surgical and nonsurgical patients (170.27 days; 5.68 months vs. 160.54 days; 5.35 months, $p = 0.523$). Patients treated nonsurgically were significantly older (40.63 years vs. 34.45 years, $p = 0.006$). Other demographics were not significant. There was a higher rate of complications in the surgical cohort (OR=2.0, 95% CI 0.35-11.42, p=0.22). There were two reruptures in the nonsurgical cohort and two wound complications in the mini open cohort.

DISCUSSION AND CONCLUSION: Both functional rehabilitation and mini-open operative surgical management are effective in returning service members to duty at high rates. There is no difference in the average time to return to duty between these two treatment strategies. Final decision on management of acute Achilles ruptures should be based on specific patient factors and shared decision making.