Limited Open Repair of the Ruptured Achilles Tendon:
A New Alternative
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Precis/Summary:
a new alternative for surgical repair of ruptured Achilles tendons is presented, along with its clinical results.

Abstract:
Introduction: There is no consensus in the literature regarding the ideal surgical technique for repair of a ruptured Achilles tendon. Surgical repair provides better functional capacity and a lower rerupture rate than nonsurgical treatment. However, the incidence of complications with open repair is high. We propose a miniopen procedure with the use of the Dresdner Instrument, which avoids soft tissue problems due to its limited approach, and achieves excellent functional results and a low rerupture rate.

Objective: to report a new non invasive surgical alternative developed in Dresden Germany, for the treatment of acute spontaneous Achilles Tendon rupture, and our own experience and results with this technique.

Methods: The inclusion criteria for our miniopen repair of ruptured Achilles tendon are: 1) age less than 65 years; 2) operation within 10 days of the rupture; 3) a rupture occurring between 2 and 7 cms proximal to the tuberosity of the calcaneus. We have retrospectively evaluated our results. Since May 2005 we have operated on 33 patients, average age 41.5 years (range 22-58), average follow-up 1.3 years. The operative technique considers a unique incision 2 cms proximal to the gap, which extends for 2 cms proximally. The interval between the superficial fascia of the leg and the paratenon is developed, and the special device is introduced through this interval until the calcaneus. Percutaneously two separate sutures are introduced through the distal end of the Achilles tendon, passed through the interval previously described, recovered through the proximal incision, and tied to the proximal end, taking into consideration the physiologic equinus position of the contralateral leg. The patient is immobilized in equinus for two weeks, starting afterwards with full weight bearing and a fast rehabilitation protocol. The subjective satisfaction was recorded, soft tissue complications, sural nerve damage, presence of rerupture and time to return to common daily activities.

Results: Our satisfaction rate was 100% with the use of the Kenneth Johnson Scale. No soft tissue complications have been recorded. No sural nerve damage or rerupture of the tendon has occurred. The average time to return to daily activities was 42 days.

Conclusion: Our results are promising, as we obtained a high satisfaction rate, and no surgical complications. We believe this technique is a very good option to treat this pathology, avoids sural nerve damage due to the anatomic interval we use for repair; avoids soft tissue complications due to its limited approach and respects the biology of the rupture as we do not open the paratenon.