

Post-Operative Outcome of Achilles Tendon Injury Treated with Knotless Percutaneous Achilles Repair System

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Abstract

Background: The Achilles tendon is the most frequently ruptured tendon in the body and its incidence is increasing, more so among athletes. Various surgical techniques exist for treating it and one of these is as discussed in this study, Achilles tendon injury treated with Knotless PARS (Arthrex) that allows for earlier weight bearing and mobilization and, therefore, faster rehabilitation and an improved functional outcome.

Aim: The post-operative progress of patients, specifically athletes subset with Achilles tendon injury treated with Knotless PARS is discussed in this article using Newcastle Orthopaedic Foot and Ankle Score (NOFAS).

Methods: We retrospectively evaluated the patients operated on between March 2015 and January, 2017, 19 feet of 19 patients diagnosed with acute Achilles tendon rupture were treated. All clinical outcomes were examined

follows: Soccer in 8 patients, running in 2 patients, and cricket, dancing, hockey, netball, rugby, skiing, surfing and tennis in 1 patient each.

4.75 mm SwiveLocks is inserted. Note: Tension appropriately and Compare with contralateral foot. This results in a secure knotless repair of the Achilles tendon rupture. Sutures are cut flush with the anchor, and the surgeon performs wound irrigation and layered closure, with absorbable suture, of the paratenon and subcutaneous

tissues. After skin closure with nylon suture, resting ankle plantar flexion is assessed and the Thompson test performed. The patient is placed in a well-padded non-weight-bearing plantar flexion splint for incision and initial tendon healing during the first 2 weeks after surgery.

Figure 3

at least 1 year to develop a Good NOFA Score, but the return to their sporting activity can begin as early as 3 months.

Return to Sporting Activity	Months taken to Return to Sports post-surgery	No. of Patients	Avg. of Age of Patients	Months passed to date since Surgery Average (Range)	NOFA Score Average (Range)
Yes	3 Months	2	37	17.00 (13-21)	91.75 (87.5-96)
	4 Months	4	45.75	19.50 (15-28)	88.62 (81-100)
	10 Months	1	42	20.00 (20-20)	74.00 (74-74)
	12 Months	2	54	14.50 (14-15)	92.50 (90.5-94.5)
	18 Months	1	37	22.00 (22-22)	90.00 (90-90)
No	-	9	40.67	12.89 (6-23)	69.50 (46-90)
Total	-	19	43.33	15.74 (6-28)	79.60 (46-100)

Table 2 No. of people that were able to return to sporting activities explained.

Results as per NOFA score	No. of patients	Average of NOFA score	Average of age	Average of months since surgery (Range)
Excellent	1	90	51	20 (20-20)
Very Good	1	86	54	21 (21-21)
Good	2	75.3	32.5	18 (13-23)
Fair	2	67.8	26	8.5 (7-10)
Poor	3	54.5	48	7.3 (6-8)
Grand Total	9	69.5	40.7	12.9 (6-23)

management [24,25]. Knotless Pars is a minimally invasive technique that intends to reduce this complication [26,27]. Its minimal incision reduces risk of wound complications and it provides the ability to create a locking stitch, making it stronger [26].

The review studies by Ververidis et al. [3] illustrated that in thirteen studies, including 670 patients, re-rupture rate was very low with the most frequent complication being sural nerve damage. Average

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