Bridging the gap: Flexor Hallucis Longus transfer for management of Chronic Achilles tendon rupture

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ABSTRACT

Introduction: Achilles tendon ruptures are one of the most common ruptured tendons of the lower extremity. The management of chronic Achilles tendon tears is more difficult than the primary repair of acute ruptures, because the tendon ends normally are retracted and the status of the surrounding soft tissues makes primary repair more challenging. Problems such as tendon retractions with gaps at the cut ends, scarring, calcification, and collagen deterioration are also known to occur. No standard treatment exists however multiple authors have published protocols for their treatment depending on size of the gap and age of injury.

Objective: This report aims to discuss FHL transfer as an effective method for treating for Chronic Achilles tendon rupture.

Methods: A 35-year-old male came to our clinic complaining of weakness in ankle plantarflexion for the last fourteen months. Physical examination revealed calf atrophy, palpable gap, positive Thompson test and weak ankle plantarflexion. Magnetic resonance imaging revealed chronic partial Achilles tendon tear with intrasubstance degeneration and partial fiber retraction.

Surgical management with flexor hallucis longus tendon transfer was planned. Intraoperatively, severe tendinosis was noted and resection was done leaving a 14cm gap. Achilles tendon reconstruction was then carried out with flexor hallucis longus tendon transfer and end-to-end suturing with non-absorbable sutures.

Result: The outcome was excellent as per the American Orthopedic Foot and Ankle Score without any major complications which were anticipated before surgery. The patient recovered well and the full range of motion of the ankle joint was achieved at the 12-week.

Conclusion: Chronic Achilles tendon rupture is more difficult to manage than acute Achilles tendon rupture because it is associated with scar tissue formation at the tendon's gap, causing ankle dysfunction. FHL transfer is a viable option since it provides adequate strength and can be used to bridge the gap created by the total rupture of the Achilles tendon.

Keywords: Chronic Achilles tendon rupture, Flexor hallucis longus tendon transfer