

## Allograft Tendon Reconstruction for Chronic Achilles Tendon Rupture

Terence MD, L. Shanjay, Nur Sabrina AG

### Introduction

Chronic ruptures of the Achilles tendon (TA) are those that present 4 to 6 weeks after the original injury<sup>1</sup>. We are presenting a cases of allograft Achilles tendon reconstruction for chronic traumatic rupture.

### Report

A 22-year-old-man sustained open talus with deep laceration wound circumferentially posterior medial ankle. A 6cm segmental loss TA with no distal stump along with flexor hallucis longus (FHL) total cut noticed during the initial debridement. TA reconstruction was delayed for about 7 months in view there was still sign of infection. Ultrasonography revealed the gap about 7cm. Based on clinical evaluation (Kuwada IV) with previous FHL cut, his subjected for TA reconstruction with cryopreserved allograft. Intra-operatively, noted TA was retracted and after debridement total gap is 11cm (Figure 1A). TA tendon allograft osteosynthesis to calcaneal bone with 2 cortical screw and proximally sutured with Krackow technique (Figure 1B,1C). Patient followed post operative routine vigilantly, 8 months post operative patient able to perform single heel raise and walk without assistance (Figure 2A).



**Fig 1A:** gap measuring 11cm; B, C allograft suture and osteosynthesis done



**Fig 2A:** Able to perform single heel raise; B, C, D outcome comparable to normal side.

### Discussion

Chronic TA rupture results in problems such as tendon retractions with gaps at the cut ends, scarring, calcification, and collagen deterioration. The use of allograft allows bridging of large tendon defects with an adequate graft, avoiding donor site morbidity and relative ease of surgical technique<sup>2</sup>. TA allografts have a long and broad aponeurosis for secure proximal suturing to a wide area, in addition they have same thickness and shape as native TA<sup>2</sup>. Multiple cases reported good clinical and functional results one year after the TA transplant reconstruction.<sup>2</sup>

### Conclusion

Proper evaluation and treatment strategy must be planned for successful reconstruction. The use of allograft has been recommended when significant segmental defect is encountered and provides satisfactory outcome.

### Reference

1. Cienfuegos A et al; J Foot Ankle Surg. 2013
2. Ofili KP et al; Foot Ankle Surg. 2016