

Using Artelon As An Alternative Graft In Case Of Chronic Rupture Achilles Tendon With Huge Gap Defect

¹Shival T, ¹M. Shahril J, ¹Azammuddin A.

¹Department of Orthopedic, Hospital Sultan Abdul Aziz Shah, UPM, Serdang Selangor.

INTRODUCTION:

Treating chronic Achilles tendon ruptures unequivocally depends on the injury's age and the defect's size. We present a case where a chronic rupture was reconstructed using Artelon as a graft.

REPORT:

A 32-year-old male presented with nine months weakness of ankle dorsiflexion following a sports injury. Clinically, there was a palpable gap at posterior ankle, and the Simmonds-Thompson test was positive. MRI showed a complete tear of the Achilles tendon with a gap defect of almost 13 cm.

Due to the chronicity and proximal retraction of the Achilles tendon, the patient required complex reconstruction surgery. The surgical procedure involved two longitudinal incisions made at the calf region. The first was a proximal incision at the myotendinous junction for the V-Y plasty procedure. The second distal incision was for the FHL transfer. The V-Y plasty procedure managed to reduce the gap to 7 cm. During the surgery, an Artelon graft was sutured to the proximal stump, passed underneath the subcutaneous tissue, and then sutured distally to the remnant of the Achilles tendon at the calcaneum tuberosity. The Artelon graft was also attached to the FHL tendon.



Figure 1: MRI showing tear at insertion site with a gap of 13cm



Figure 2: Artelon Graft and Proximal Stump brought towards Achilles footprint.

After surgery, the ankle was put in the 30 degrees first and gradually moved to the neutral position within six weeks. Patient was advised protected weight bearing continued for three months. At six months, patient was able to return to work with an AAFOS score of 88.

CONCLUSION:

Artelon graft has historically proven to be a reliable bio-scaffold for ligamentous repair in knee joint. In our case, we have shown that this graft can effectively be used to address large defects in chronic Achilles tendon injuries.

REFERENCES:

1. Achilles tendon reconstruction using a biosynthetic graft. Kepler et al. Journal of Foot and ankle, December 2022