

'Repair & Flap': Single Stage Procedure Of Soft Tissue Defects Of The Heel With Achilles Tendon Injury

Tan WL; Abdul Razak KA; Ganesh DK; Wong JH; Jagjoth S
Department of Orthopaedics & Traumatology, Sibuh Hospital, Sarawak, Malaysia

INTRODUCTION:

Traumatic Achilles tendon loss with soft tissue defects of the heel presents a challenging scenario. Restoration of function and wound healing is of utmost importance. We present our experience of a single stage Achilles tendon repair and reverse sural artery neurocutaneous flap in our centre.

REPORT:

A 14-year-old girl was involved in a self-road traffic accident. Her right foot was stuck in the wheel spoke of the motorcycle and sustained a degloving wound with 3cm Achilles tendon loss. The patient underwent debridement, V-Y advancement of the Achilles tendon and reverse sural artery flap, and split thickness skin graft for the donor site. The ankle was stabilized with external fixator in maximum plantarflexion. Dorsiflexion was introduced by 15° every 2-weekly up to 6 weeks in which the external fixator was removed. At 6 months, the flap is healed and the patient has full ROM of the ankle.

The reverse sural artery flap derives its name from the sural nerve. It is supplied by a retrograde blood flow from the anastomosis of the perforators of the peroneal artery situated 6 to 10cm proximal to the lateral malleolus^{1,2}.

V-Y advancement is recommended in situations where the Achilles tendon loss is 3 cm or less, distal stump is present and free of adhesions and is also reproducible in chronic injuries³.

CONCLUSION:

The versatility of the sural flap provides Orthopaedic surgeon the 'arsenal' to handle combined Achilles tendon injury and soft tissue defect of the heel when plastic surgery service is not available in the centre.

REFERENCES:

1. Alam MK et al., Sural Island Flap – A Good Option for Coverage of the Exposed Heel; 2010
2. Ciofu et al., Reverse Sural Flap for Ankle and Heel Soft Tissues Reconstruction; 2017
3. YJ Lin et al; Surgical Strategy for the Chronic Achilles Tendon Rupture; 2016



Figure 1: Pre-op



Figure 2: Intra-op



Figure 3: Post-op 6 months

DISCUSSION: