ACUTE RUPTURE OF EHL AT ZONE 1 TREATED WITH PULL-OUT SUTURE TECHNIQUE: CASE REPORT

Mohd Shukri O, Che-Ahmad A, Adham SA

Department Of Orthopaedics, International Islamic University Malaysia Medical Centre, Kuantan, Pahang

INTRODUCTION:

Injuries to extensor hallucis longus are uncommon. In most literature, injuries to extensor hallucis longus occur mostly due to penetrating trauma causing direct injury. Closed subcutaneous rupture of extensor hallucis longus is even rare. It is mostly related to sports injury, due to involvement in martial arts, skiing and dancing. It is postulated that most spontaneous rupture of extensor hallucis longus are due to repetitive microtrauma. Other known systemic risks include diabetes mellitus, age, obesity and steroid medication. Most closed subcutaneous rupture of extensor hallucis longus presented as chronic cases with retracted tendon stumps.

REPORT:

We reported a rare case of acute ruptured extensor hallucis longus following hyperflexion injury. 31-year-old gentleman presented with inability to extend right big toe for 5 days post fall in which clinical and radiological assessment correlate with extensor hallucis longus rupture. He undergone exploration surgery and extensor hallucis longus was found to be ruptured at insertion site. Tendon was repaired using pull-out suture technique supplemented with cross joint K-wire. At 6 weeks, he was able to resume daily activity as normal and able to extend the toe fully.

DISCUSSIONS:

In acute extensor hallucis tendon injuries, treatment options are direct primary repair or tendon reconstruction. In Zone 1 injury, Al-Qattan (2007) used open interphalangeal joint capsule repair supplemented with interphalangeal joint wire. We used similar method with addition of pull-out suture technique, which achieved good functional outcome.



Figure 1: EHL rupture at Zone 1 with 2cm proximal stump retraction



Figure 2: Repair with pull-out suture technique

CONCLUSION:

Pull-out suture technique supplemented with cross joint K-wire is a reliable option in treatment of acute rupture of extensor tendon at Zone 1.

REFERENCES:

- 1. Al-Qattan, M. M. (2007). Surgical treatment and results in 17 cases of open lacerations of the extensor hallucis longus tendon. *Journal of Plastic, Reconstructive and Aesthetic Surgery*, 60(4), 360–367.
- 2. Wong, J. C., Daniel, J. N., & Raikin, S. M. (2013). Repair of Acute Extensor Hallucis Longus Tendon Injuries. Foot & Ankle Specialist, 7(1), 45–51.