Primary Repair For Chronic Tear Of Bilateral Patellar Tendons In A Patient With End Stage Renal Failure: A Case Report

Wong JY; Yap YS; Ong TK; A Aziz Y

Department Of Orthopaedics & Traumatology, Hospital Seberang Jaya, Pulau Pinang

INTRODUCTION:

Spontaneous patellar tendon rupture is uncommon. This report demonstrates a case of young man with end stage renal failure who sustained a simultaneous spontaneous bilateral patellar tendon rupture.

MATERIALS & METHODS:

A 23 year-old man with end stage renal failure, complaint of pain and give way of both knees, after a forceful jump during sport game. Clinical examination shows tenderness and notable gap over infrapatellar region, with loss of extensor mechanism of both knees. Plain radiograph shown patellar alta with calcification of patellar tendon (Figure 1). Ultrasonography of the bilateral knees unable to visualize the tendons.

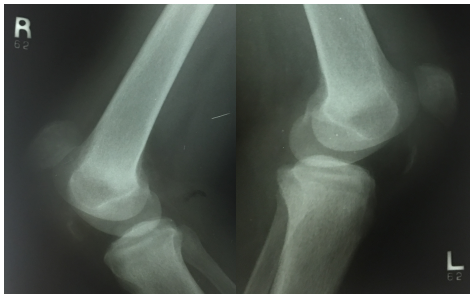

Figure 1: Plain radiographs suggest rupture of bilateral patellar tendon

RESULTS:

Surgical exploration shown both patellar tendons ruptured at the origin of the tendon at the inferior pole of the patella (Giblin Type 1). Primary repair using Krakow interlocking sutures, reinforced with anchor sutures and tension relieving wire, was done 3 months after injury (Figure 2). Postoperatively, the knees were immobilized with cylinder cast for six weeks, followed by quadriceps muscle strengthening exercise and passive mobilization of the joints. At a 6 months follow-up, the patient has no knee pain and resumed low impact sport activities. He is able to extend both knees without limitation, with Modified Lysholm Score of 99 for the right knee and 100 for the left knee.

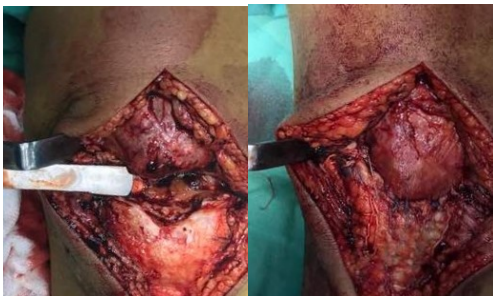

Figure 2: Patellar tendon repair using Krakow sutures, reinforced with anchor sutures

DISCUSSIONS:

The etiology of spontaneous patellar tendon ruptures is still not fully understood. It is commonly associated with systemic diseases such as chronic renal disease, diabetes and hyperparathyroidism.[1] The mechanism of injury in this case involved eccentric loading of the patella tendon during forceful flexion-extension of knee joints. However, this loading is below the force of 17.5 times the body weight that is required to rupture a healthy patella tendon.[1] This highlight a higher vulnerability for rupture in subjects with underlying chronic systemic disease. Krakow repair reinforced with anchor sutures, with protection of tension relieving wires, resulted in excellent function and restoration of normal activities within 6 months, despite delayed primary repair.

CONCLUSION:

Spontaneous rupture of bilateral patellar tendons is rare and associated with chronic systemic disease. Surgical repair results in an excellent clinical outcome.

REFERENCES:

1. M Mencia et al., Spontaneous Bilateral Patellar Tendon Ruptures in a Patient with Chronic Renal Failure: A Case Report. The Internet Journal of E Med, 2012; 7(2).