

Chronic Patellar Tendon Rupture Reconstruction With Semitendinosus And Gracilis Tendons With Preserved Distal Insertions. Case Report

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INTRODUCTION:

Chronic patellar tendon rupture is a rare and disabling injury. The impairment of the extensor mechanism results in great functional disability. We report a case of chronic patellar tendon rupture reconstruction using ipsilateral semitendinosus-gracilis (STG) tendons with preserved distal insertions.

CASE REPORT:

A 21 years old malay gentleman patient presented to our clinic with inability to extend his right knee and instability while walking. He had injured his right knee in a motor vehicle accident and left neglected for 4 months. An examination indicated that his left patella had migrated proximally and was higher than the left. There was evidence of quadriceps wasting, and a palpable gap below the patella was noted. The range of movement was from 0 to 60° however, there was no active knee extension. The diagnosis of a patellar tendon rupture was made on a clinical basis and was confirmed radiographically patella alta (blackburne-Peel index :1.21). The patient was placed in a supine position under general anaesthesia with the use of pneumatic tourniquet. The ends of the semitendinosus and gracilis tendons were exposed through 4-cm incision over the surface of the pes anserinus. An open-ended tendon stripper was used to harvest the semitendinosus and gracilis tendons, with preservation of the tibial insertions. Both tendons were sutured along their longitudinal axes. Midline incision was made from the patella to the tibial tuberosity. The ruptured patella tendon was identified and the scar tissue debrided. Horizontal mediolateral bone tunnels were drilled through the lower pole of the patella and tibial tuberosity. The graft was guided through the bony tunnel and cross in front of patella in a figure-of-eight fashion. Both tendons were treated with interrupted sutures where they overlapped. Rehabilitation exercises began on the first postoperative day. At 6 months of follow up he had full active knee extension and 120° of flexion.



Figure 1: Harvested STG tendon grafts

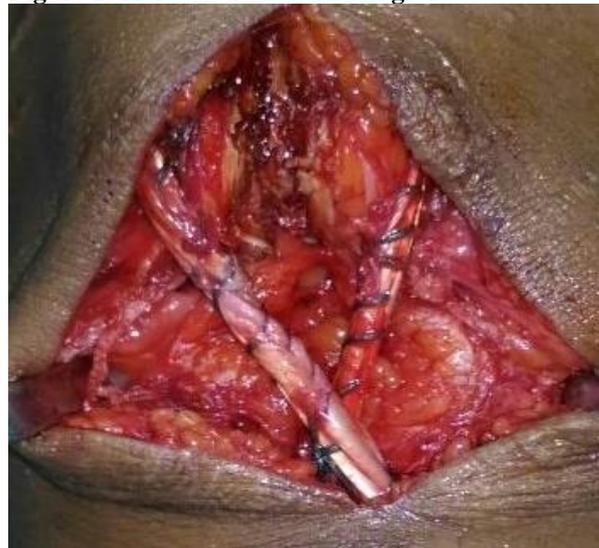


Figure 2: Reconstructed patellar tendon

DISCUSSIONS:

STG tendons are rich in tendon fibers and can be used to yield a strong graft. The strength and stability of the extensor mechanism can also be restored. Preservation of the original distal insertion of the STG appears to preserve its viability and provide sufficient blood supply to accelerate healing. Chen et al.

REFERENCES:

- 1.Chen et al Reconstruction patellar tendon using semitendinosus and gracilis tendons with preserved distal insertions:Knee. 2012, pubmed.