SUTURE TAPE WITH KNOTLESS ANCHOR: OVERCOMING THE DILEMMA OF TRADITIONAL METHOD IN QUADRICEPS TENDON REPAIR

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Introduction: Quadriceps tendon ruptures (QTRs) requires surgical repair to restore ambulatory function. Compared to the traditional method of using trans-osseous suture, suture tape combined with knotless anchors (STKA) offers a stronger repair construct. Here we describe a case of QTR repaired using this technique.

Discussion: 57-year old gentleman with underlying end-stage renal failure fell down on flexed knee. There was palpable gap at suprapatellar area with impaired knee extensor mechanism. Radiograph showed no fracture. He was clinically diagnosed with QTR and underwent quadriceps tendon repair using STKA technique. 2 strands of suture tape were used to secure the quadriceps tendon with running locking Krackow configuration. The 2 ends of this tape were placed into biocomposite anchors that were then flushed into the superior pole of patella. The core sutures from these anchors were used to reinforce the repair by modified Kessler configuration over the retinaculum. Repair was protected with cylinder slab for 6 weeks. He regained full knee range of motion after 11 weeks. Traditional method of repair for QTR involves sutures passed through trans-osseous tunnels in patella and tied over bone bridges1. This requires larger incision for exposure, strength of surgeon-tied knots are inconsistent and may cause irritation over pre-patella area1. A superior method is by using STKA where biomechanical studies have found it to have less gapping with cyclic loading, higher ultimate failure loads, lesser operative time and smaller surgical wounds. These advantages are beneficial given that most of the patients involved have comorbidities that predispose them to intraoperative and wound-healing complication.

Conclusion: STKA is a better alternative in repairing QTRs. This should be considered as the preferred technique in managing QTRs.