

A RARE CASE OF SUPERIOR MIGRATION OF PATELLA IN AN ELDERLY PATIENT FOLLOWING REVISION TOTAL KNEE ARTHROPLASTY

Mithun VJ¹, Solayar GN^{1,2}, Ahmad AR¹

¹Orthopaedic Department, Hospital Tuanku Ja'afar, Seremban, Negeri Sembilan

²International Medical University (IMU), Seremban, Negeri Sembilan

INTRODUCTION:

Superior migration of patella is when the patella rides abnormally high in relation to the femur and femoral trochlea leading to patella instability. An abnormally high patella therefore insufficiently engages into the proximal trochlea groove both in flexion and extension having high risk of dislocation. The extensor mechanism includes the quadriceps muscle and tendon, medial and lateral retinaculum, patellofemoral and patellotibial ligaments, patella, patellar tendon, and tibial tubercle. Discontinuity in any of these components can lead to an extensor mechanism disruption. The reduction of tendon stiffness in old age is the main contributing factor for functional implication. Tendons in older age group stretch more causing the sarcomere to shorten more than younger age group tendons. The less compliant the tendon it takes a lesser time to stretch. We are presenting our experience of a rare case of patella tendon elongation following revision total knee arthroplasty.

CASE REPORT:

A seventy-year-old female who had history of left total knee arthroplasty for a grade IV osteoarthritis done in 2004 presented to us with left knee pain and swelling. She did not have any history of traumatic event. On examination the left knee extensor mechanism showed some degree of laxity. Infective screening was done including left knee joint diagnostic aspiration. Infection was ruled out. She was diagnosed with aseptic loosening of the left total knee implant. Revision total knee arthroplasty with tibial tubercle osteotomy was done. Post operatively we noted she had proximal migration of the left patella despite having full functional extensor mechanism. Post operatively range of motion of the knee was reaching 100-degree flexion. During clinic follow up we noted she had intact extensor mechanism of the knee.

Figure 1: AP radiograph showing proximal migration of patella.



Figure 2: Lateral radiograph showing proximal migration of patella.



DISCUSSIONS:

Extensor mechanism disruption following a revision total knee arthroplasty can cause significant functional limitation for a successful surgery. The most common cause is usually patella tendon rupture. Patella tendon elongation in elderly is extremely rare. In old patients with inherent weakness of patella tendon and compromised musculoskeletal system great care should be taken intraoperatively and postoperatively.

CONCLUSION:

Recognition of the risk factors of extensor mechanism disruption and focus on preventive efforts through meticulous surgical exposure and technique are paramount for every patient undergoing total knee arthroplasty. There are variety of management options available and the most commonly used is the reconstruction using allograft.

REFERENCES:

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