ARTHROSCOPY ASSOCIATION UTTAR PRADESH

ARTHROSCOPY IN POST TOTAL KNEE REPLACEMENT WITH PIGMENTED VILLONODULAR SYNOVITIS
A Case Report

DR. ASHISH KUMAR Department of Orthopaedics, Kalyani Nee & Shoulder Clinic
Umaraha Market, NH-31, Varanasi U.P.

INTRODUCTION
Arthroscopy after total knee replacement is required at times for various indications. Postoperative stiffness requiring arthrolysis, removal of cement fragments and other loose bodies, problems related to patellar tracking and synovitis are the main indications. A proliferative condition known as pigmented villonodular synovitis (PVNS) affects the synovial joints and causes bone erosions, massive effusions, and villous or nodular alterations in the synovial tissue [1]. PVNS following total knee replacement is uncommon. This locally aggressive lesion, which typically affects large joints, most frequently the knee, is poorly understood. We presented a rare case report of a patient who, five years after having primary TKA, developed recurrent pain and hemarthrosis as a result of PVNS.

CASE REPORT-
We performed arthroscopy on an 80 years old man, who had bilateral total knee replacement done 5 years back for degeneration in the knee along with pigmented villonodular synovitis (biopsy proven). He was alright till 6 months before he started developing recurrent episodes of effusion and pain in his TKR knee on the left side not responding to medical treatment.

Under tourniquet, from the standard anterolateral portal, diagnostic arthroscopy was performed. Care was taken in not touching the implant components with the tip of arthroscopy cannula. During arthroscopic examination, villonodular Synovitis was evident (Figure-1).

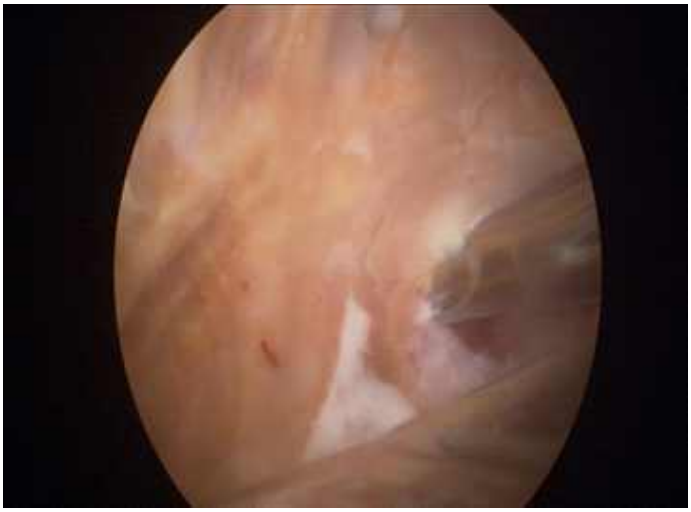

Figure-1: Pigmented villonodular synovitis (synovial proliferation) was evident during arthroscopy.

Anteromedial portal was made and biopsy samples were collected. Arthroscopic removal with synovectomy was done and the sample sent for histological examination of synovial tissue (Figure- 2 & 3).

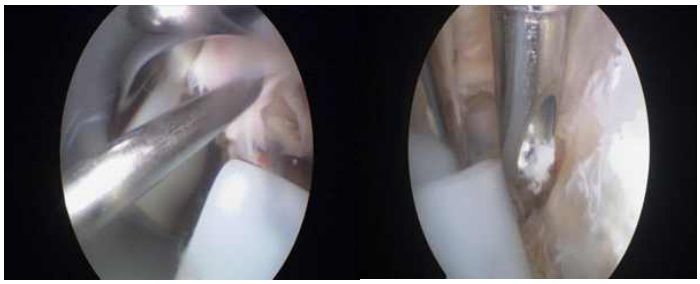

Figure- 2 & 3: Arthroscopic removal of synovial proliferation intra-operatively.

The risk of scratching the TKR components by the arthroscope cannula, instrument breakage, infection, and difficult access to certain joint areas are the main disadvantages. Mirror effects and optical illusions present real difficulty to the surgeon (Figure-4). Optical illusions due to reflection were quite disturbing, but we were able to shave almost all the yellow synovium down to the basal layer from all areas of the knee.

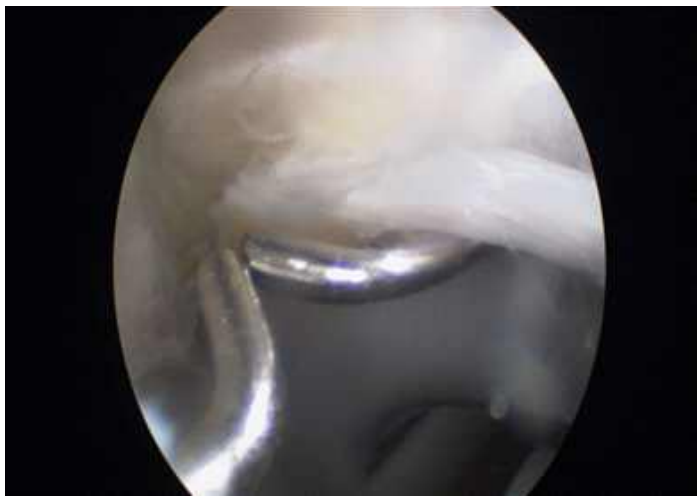

Figure- 4 : The "Mirror effect" is shown during arthroscopic examination. This can cause illusion to surgeon during arthroscopy, leads to implant or arthroscope damage

Accessory, additional supero-lateral and supero-medial portals were required to reach the lateral and medial gutters. Finally, a thorough wash was done and the

guarded rehabilitation with Post op long knee immobiliser for 4 weeks. Static quadriceps was started on 1st post op day. Partial Weight bearing with knee Immobiliser and walker was started on 2nd post op day. Passive ROM 0-30 degree was aimed from 4-6 weeks. After 6 weeks active Range Of Motion & Straight Leg Raise was started and patient regained full ROM at 3 months. At 6 months follow up patient resumed her office with good range of motion and quadriceps power.

CONCLUSION

Bilateral Patella tendon rupture is a rare injury. Role of steroid remains debatable in causation of these injuries. Early surgery is important for regaining return to function. Augmented repair helps in early rehabilitation. Fibre tape acts as Internal brace to soft tissue augmented repair. Addition of fibre tape is important especially in indian scenario with small and thin hamstring grafts.

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