



Recurrent Dislocation of Patella Due To Dysplastic Patella- A Case Report

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ABSTRACT

Recurrent dislocation of patella of knee joint is uncommon condition which may result in sudden lateral dislocation of patella when the knee joint is flexed. It may be caused due minimal trauma, with an underlying pathology in the extensor mechanism of the knee joint. Anatomically vastus lateralis may be hypertrophic, vastus medialis may be deficient, patella may be small(dysplastic). The treatment options differ for each case, like proximal realignment procedure, distal realignment procedure or combined. A male boy aged 14 years presented with Recurrent dislocation of patella of right knee due to dysplastic patella. We have treated him with proximal realignment procedure by Insall Techniqu. The patient recovered well with good stability of the patella. Inall procedure is simple and effective technique which can be done by any other orthopaedic surgeon when it is indicated.

Key Words: *Recurrent, dislocation, alignment, dysplastic.*

INTRODUCTION

Recurrent dislocation of patella is caused by many abnormal anatomical variations around the knee joint. It has dynamic causes like hypertrophy of vastus lateralis muscle which pulls the patella laterally ,atrophy of vastus medialis loosening medial restraining factor causing lateral dislocation of patella when the knee joint is

flexed. Trauma may result in acute lateral dislocation of patella, which may result in laxity of medial patellar retinacula causing lateral dislocation of patella. Any condition which increases the Q angle of the knee extensor mechanism is prone for lateral patellar dislocation. Static factors like hypoplasia of lateral femoral condyle, shape of the patella like small patella

(dysplastic ptella), a high riding patella(patella alta) are considered by many authors as important causes for Recurrent dislocation of patella. Many surgical alignments have been proposed like, Proximal realignment methods where the quadriceps mechanism has been realigned to stabilise the patella. In distal realignment procedure the ligamentum patella along with tibial tuberosity are realigned. In some cases both the procedures are combined. We have done proximal realignment method in this case.

CASE REPORT

A 14 year old boy reported at our hospital with a dull aching pain right knee, and instability of right knee since 6 years. Physical examination revealed patellar dislocation of right knee when right knee is flexed to 30 degrees (Figure1). No signs of joint laxity, apprehension and no other significant systemic abnormalities. Radiographically the patella looks small, patella alta (high patella) is ruled out by Insall method of diagnosis of measuring LT:LP ratio. Skyline view of the patella has shown clear lateral dislocation of patella (Figure3).We conducted Insall technique of Proximal realignment of quadriceps muscle to the patella together with a lateral release of lateral retinaculum. This involved a midline incision followed by separating both medial vastus and lateral vastus from the Rectus femoris muscle. Patella is tightly secured to femoral groove, by suturing free lateral edge of vastus medialis to the free medial edge of vastus lateralis. Postoperatively above knee plaster of paris casing applied. Patient was reviewed after 6 weeks; plaster

cast was removed and subjected him for physiotherapy. Patient was again came for follow up after 3 months of operation he has 100 degrees of flexion without patellar dislocation

DISCUSSION

Recurrent dislocation of patella is caused by various pathological abnormalities of anatomical structures around the knee joint and trauma ,causing gait abnormality, dull aching pain and restriction of physical activity of the patient. Congenital type may result in severe flexion deformity of the knee joint .The main aim treatment of recurrent dislocation of patella is to realign the patella to trochlear groove during full range of flexion and extension of knee joint. Various surgeons advocated different types stabilization of patella like Proximal realignment of quadriceps, Distal realignment where the tibial tuberosity is osteotomized and shifted medially and fixed to tibia. Some cases need both the procedures. In this patient who is an adolescent who is suffering from lateral dislocation when he is flexing knee beyond 30 degrees, we had stabilized the patella by proximal realignment .This proximal realignment needs quadriceps split and repair. We have done this procedure as the Q angle of the knee extensor mechanism is 14 degrees. As in the distal alignment procedures, this procedure doesn't require any implants like screws and can be done by any average orthopaedic, surgeon. The main complications associated with this procedure are Delayed wound healing due to skin dehiscence, Knee joint stiffness which requires good physiotherapy.



Figure 1

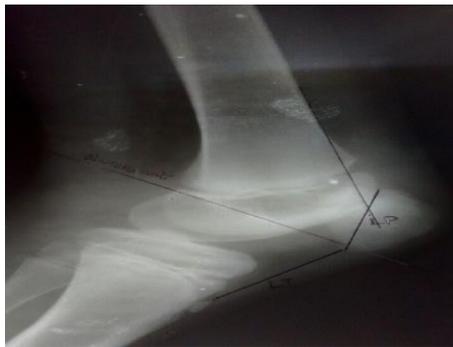


Figure 2



Figure 3



Figure 4

CONCLUSION

In summary we conclude that recurrent dislocation occurs more commonly due to anatomical abnormalities of the soft tissue constraints around the patella. The identification

of the pathoanatomy is important for what type of procedure to be undertaken. Here we had recurrent dislocation of patella in adolescent due to patellar dysplasia having Q angle less than 17 degrees can be managed by proximal realignment of quadriceps mechanism by Insall method which is easy can be done without much complications.

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