Abstract Submission Template

1. Presentation Title

Maturity-Specific Surgical Realignment for Obligatory and Recurrent Patellar Dislocation: A Case Series of Three Patients

2. Author(s) and Affiliation(s)

Presenter* and Co-author names

Mudit Patel[1]*, Amit Kumar[1]

Affiliation

[1]Department of Orthopaedics, Sanjay Gandhi Postgraduate Institute of Medical Sciences (SGPGIMS), Lucknow, India

3. Presenter Details

Presenter Name: Dr. Mudit Patel
Email Address: muditpatel@yahoo.com]
Alternative Email Address (if any): drmuditpatel2394@gmail.com]
Contact Number : +917017464529]
Social Media Handles (Twitter/Facebook/LinkedIn) doc_corleone Instagram]

4. Presentation Category

Oral Presentation
Poster Presentation Yes]

5. Session Name / Topic Area

Orthopaedics: Paediatric and Adult Knee Surgery (Patellofemoral Instability)

6. Abstract

Background: Lateral patellar instability is a spectrum. In obligatory (habitual) dislocation the patella dislocates with every flexion cycle and is driven mainly by a contracted, laterally tethered extensor mechanism, whereas recurrent instability is increasingly managed by restoring the medial restraint. Few reports show how one principle can be applied across skeletal maturity.

Cases: We report three patients. Patient 1, an 18-year-old man with longstanding obligatory dislocation of the right patella, underwent single-stage wide lateral release, quadriceps tendon Z-plasty (about 2 cm of lengthening), medial patellofemoral ligament (MPFL) reconstruction with semitendinosus autograft, and anteromedial tibial tubercle transfer (about 10 mm) with screw fixation. Patient 2, a 3-year-7-month-old boy with open physes and obligatory dislocation, underwent a physeal-sparing five-component soft-tissue realignment without osteotomy: lateral release, rectus femoris V–Y lengthening, vastus medialis obliquus advancement, medial plication, and Roux–Goldthwait patellar tendon hemitransfer. Patient 3, a 7-year-old girl with open physes and recurrent, non-obligatory instability with an increased Q-angle and tibial tubercle–trochlear groove distance, underwent a modified Galeazzi semitendinosus tenodesis with medial imbrication and lateral release.

Outcomes: In Patient 1, wide lateral release alone did not centre the patella and quadriceps lengthening was required. At 24 months there was no recurrence, the tubercle position was

maintained on serial radiographs without implant loosening or breakage, and he could perform a full unsupported squat and straight-leg raise. In Patient 2, the patella remained centred through a full range of motion at the end of surgery and the early postoperative course was uneventful; longer follow-up is pending. In Patient 3, the patella did not dislocate through full flexion at closure, there were no complications, and at 6 months the patellofemoral joint was stable with a full squat.

Conclusion: The lateral tether should be released before distal realignment is added. Procedure choice should follow skeletal maturity and severity: combined soft-tissue and bony reconstruction in the mature knee, and growth-preserving soft-tissue realignment while the physes are open. This is a three-patient report with different procedures and unequal follow-up, so strategies cannot be compared; larger series with standardised outcome measures are needed.

Keywords: obligatory patellar dislocation; habitual dislocation; patellar instability; skeletally immature; Roux–Goldthwait; Galeazzi; MPFL reconstruction; tibial tubercle transfer

7. Biography of Presenting Author

Dr. Mudit Patel is a Senior Resident in the Department of Orthopaedics at the very renowned Sanjay Gandhi Postgraduate Institute of Medical Sciences (SGPGIMS), Lucknow, India. Dr. Patel has keen interests in paediatric / sports and spine orthopaedics .

8. Recent Photograph: (High Resolution)

