



## HABITUAL PATELLA DISLOCATION – A CASE REPORT

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**ABSTRACT** Habitual dislocation of patella is a condition in which patella dislocates whenever knee is in flexion and relocates spontaneously in extension. We report a case a young female of age 14 years with history of self fall while playing six months back came with complaint's of deformity over right knee and difficulty in running and cross leg sitting. Patient was diagnosed as habitual dislocation of patella, we had managed this case with combination of surgical procedure including shortening of medial patellofemoral ligament with release of lateral retinaculum and medialization of patellar tendon and after 6 months patient had good range of motion of knee joint without any pain and deformity.

**KEYWORDS :** habitual dislocation of patella, medial patellofemoral ligament, lateral retinaculum, medialization of patellar tendon.

### INTRODUCTION

Habitual dislocation of patella is a condition in which patella dislocates whenever knee is in flexion and relocates spontaneously in extension. It is very rare entity very few literature are present on this topic. It is often confused with recurrent dislocation of patella as there is but both are different entity. In recurrent dislocation there is isolated episode of dislocation followed by trauma and it is associated with pain and swelling whereas habitual dislocation is painless and asymptomatic condition. For the treatment of this dislocation there are various surgical procedures has been described in the literature but not a single procedure is effective so there is combination of procedure is recommended<sup>1,2,3,4</sup>.

### CASE REPORT

A young female of age 14 years with history of self fall while playing six months back came with complaint's of deformity over right knee and difficulty in running and cross leg sitting patient consulted many local practioners, but not able to get relief then patient came to our hospital. On clinical examination of right knee patient was having deformity over right knee as patella was palpated at lateral aspect of knee facing outwards in flexion and came back to normal midline position in full extension there was no any scar marks over knee (fig 4) patient didn't have any swelling over local rise in temperature. Rest of the clinical examination was normal and all routine blood tests were normal. Antero-posterior ,lateral and skyline view(fig 1,2,3 ) of right knee taken which shows the lateral displacement of patella and further diagnostic imaging done patient was planned for surgical procedure after getting anaesthetic fitness . Surgery was done under spinal anaesthesia with patient in supine position incision taken lateral Parapatellar of around 12 cm(fig 5,6) soft tissue dissection done shortening of medial patella-femoral ligament done with double breasting of MPFL ligament(fig 11) and release of lateral retinaculum done combined with medialization of patellar tendon done with osteotomy of tibial tuberosity and fixation of tibial tuberosity medially on tibia with help of 6.5 mm cannulated cancellous screw (fig 7,8,9,10,11,12) intra-operatively stability of patella confirmed by passive flexion and extension of right knee, the postoperative course was uneventful with mobilization of knee started day after surgery postoperative x-ray (fig 13,14 ) shows patella in midline position. Patient was given knee hinged brace for 4 weeks after 6 months follow up there was no any deformity or any dislocation and patient was happy and able to do her routine work comfortably.

### DISCUSSION

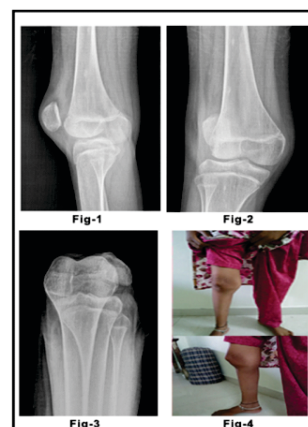
Habitual patella dislocation is a very rare condition in adults most commonly it is found in children. The cardinal physical sign in habitual dislocation is that if the patella is forcibly held in the midline it is impossible to flex the knee more than 30–70. Further flexion is then possible only if the patella is allowed to dislocate, when a full range of motion is readily obtainable<sup>12,13</sup>. Main pathophysiology of this

condition is fibrosis and shortening of lateral retinaculum following an injury or local trauma of injection itself produces muscle necrosis and fibrosis leads to shortening of lateral retinaculum or vastus lateralis and illio-tibial band.<sup>9,10,11</sup>

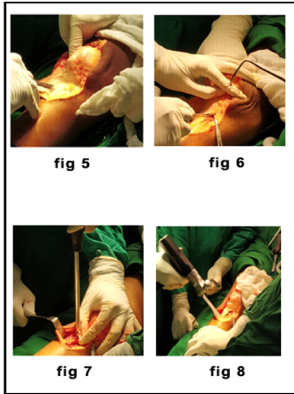
Other cause is , the medial stabilization of the patella was poor because of weakness of the vastus medialis, dysplasia, generalized joint laxity, or post traumatic medial capsular laxity weak activity of vastus medialis and fair activity of the vastus lateralis was seen in patients with habitual dislocations.<sup>5,6</sup> For management of this condition first extensive superolateral release is done by release of iliotibial band and fascia lata from its attachment to patella combined with vastus lateralis detachment from patella and after that if necessary vastus intermedius tendon division with rectus femoris elongation is performed then second vastus medialis advancement is done after proximal release distal realignment is added like in children by soft tissue procedures like medialization of patellar tendon or semitendinostenodesis and in adults by the anteromedialtibial tubercle transfer technique.<sup>7,8</sup>

### CONCLUSION

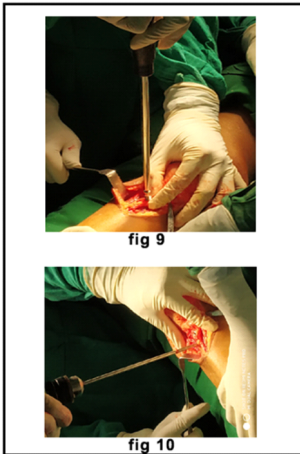
The repair of habitual patellar dislocation is not possible with single surgical procedure it requires a combination of procedure. In these cases, shortening of medial patella-femoral ligament with release of lateral retinaculum and medialization of patellar tendon gives good results.



**Fig 1,2,3 - ap,lateral, skyline view of right knee joint showing laterally displaced patella**  
**Fig 4 – preoperative clinical photographs**



**Fig 5,6**—incision and soft tissue dissection  
**Fig 7,8**- tibial tuberosity osteotomy and fixation medially with cannulated cancellous screw



**Fig 9,10** —medialization of patellar tendon and fixation of tibial tuberosity



**Fig 11,12**—double breasting of medial patellofemoral ligament  
**Fig 13,14** postoperative xray



**Fig 15**—medial and lateral stabilization of MPFL Medialization of patellar tendon by cannulated cancellous screw



**Fig 16**—postoperative suture line

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