
Patellofemoral malalignment

Sherif Mhamed Abdel Gaid

118 Malalignment of patella include isolated patellar tilt, subluxation, subluxation & tilt and recurrent patellar dislocation. The combination of large muscle forces acting on small mobile patella, with its incongruent contact geometry, leads to high degree of joint instability. Thorough evaluation of specific symptoms and signs should be carried out. Symptoms include: Pain, Giving way, Swelling and Locking. Then patient should be examined for lower limb Malalignment and genu valgum or varum. Then patient is checked for presence or absence of atrophy especially VMO atrophy and tested for patellar glide test, apprehension test & patellofemoral grind-in test. And Q angle is measured. Lastly, Patient was examined for generalized hypermobility tests and associated pathology like torn menisci or cruciate ligament. All patients are examined radiologically by lateral view to measure the patellar height using Insall-Salvati or Caton ratio preoperatively and Caton ratio postoperatively. Axial view was taken pre- and postoperatively to measure patellar tilt angle, sulcus angle and congruence angle. If the patient gives history of recurrent dislocation and radiological parameters on plain X-ray within normal, C.T or MRI was requested. All patients are treated initially conservatively for 3-6 months. Patient is asked to avoid knee position & activity that produce pain and to take pain killer (NSAID or aspirin). If still there is no improvement on symptoms, patient was referred to physiotherapy. Surgery is done when conservative treatment failed to significantly improve the symptoms. Reevaluation of the symptoms and signs was done to predict which type of surgery is suitable for every patient. Surgical treatment consisted of lateral release, proximal realignment, distal realignment and combined proximal & distal realignment. For patient with isolated patellar tilt, lateral release is selected. Patient with subluxation or dislocation; 1) without patella alta or patellofemoral osteoarthritis or 2) skeletally immature, proximal realignment is selected. If intra-operatively after proximal realignment still there is patellar maltracking, distal realignment is added (combined proximal & distal realignment). 119 Patient with patellar subluxation or dislocation, skeletally mature with patella alta or patellofemoral subluxation; distal realignment is selected.