



POSNA

The Core Curriculum

Traumatic patellar dislocation

Objectives

1. Describe mechanism of injury of patellar dislocation
2. Discuss the role of anatomic variations in the patellofemoral joint to vulnerability to acute patellar dislocation
3. Discuss factors predisposing to recurrent dislocation following an initial acute dislocation
4. Describe the incidence of osteochondral fracture accompanying acute patellar dislocation
5. Describe preferred treatment for acute patellofemoral dislocations
6. Describe treatment for recurrent patellofemoral dislocation

Discussion point

1. How can one find such disparity in results of operative and nonoperative treatment?

Discussion

Acute patellar dislocations are relatively common in children. There is reasonable agreement that there are predisposing anatomic features rendering some children more vulnerable. Ultrasonographic analysis of the trochlea has revealed that the actual cartilaginous trochlea is more shallow in children sustaining dislocation than normal, and more shallow than the plain radiograph might indicate. There is also increased awareness over the past two decades of the importance of the medial patellofemoral ligament, extending from the medial femoral epicondyle to the superomedial patella. This ligament lies deep to the vastus medialis muscle. MR imaging can reveal a tear of this ligament. Surgical treatment of acute patellar dislocation which does not address this component of the pathology may have a higher failure rate. Traumatic dislocation of the patella is almost always lateral, following an indirect mechanism of injury. The knee is flexed, with the tibia externally rotated, and the quadriceps forces in this position are concentrated over the lateral femoral condyle. Osteochondral fractures of the patella, which may be avulsion fractures medially or shear fractures laterally, and/or of the lateral femoral condyle occur in about 40 % in children. Conservative management, consisting of immobilization of the knee for comfort, followed by quadriceps strengthening, carries a failure rate of 25-50%. A family history of patellar dislocation implies a worse prognosis. An increasing emphasis is placed on early operative management, which would include not only an arthroscopic assessment of chondral integrity, but an open repair of the medial patellofemoral ligament, which is arthroscopically inaccessible. Results of this approach are still preliminary.

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