Traumatic dislocation of the knee

Objectives
1. Describe diagnosis and management of traumatic dislocation of the knee in children
2. Discuss indications for arteriography in children with traumatic dislocation of the knee

Discussion

Traumatic dislocation of the knee is very uncommon; most will be seen in adolescents approaching skeletal maturity. Massive disruption is required to dislocate a knee, including disruption of the cruciates, capsule, and variable injury to the collateral ligaments. Depending on the direction of the injuring force, the peroneal nerve and/or popliteal artery may be jeopardized. The tibial spine may fail in addition to or instead of the anterior cruciate. Indications for arteriography are sometimes unclear. A study of 37 knee dislocations (all ages) yielded 6 popliteal artery injuries. All had either a history of ischemia and/or ischemic findings on physical exam. 3 of the remaining 31 had ischemia that improved with reduction of the dislocation, had normal arteriograms and no subsequent difficulty. Arteriography was thus recommended only for patients with ischemia or history of ischemia. However, anterior knee dislocations in children secondary to trampoline injuries have been singled out as having a high rate of arterial injury. Management of ligamentous injury in children would not differ from that for an adult, with delayed reconstruction, better results are reported in adolescents than older patients.

References