Discoid meniscus

Objectives
1. Define discoid meniscus
2. Describe history and physical findings compatible with discoid meniscus in children
3. Describe a classification system for discoid meniscus
4. Describe treatment for discoid meniscus
5. Describe results of treatment for discoid meniscus

Discussion point
1. What lesion of the femoral condyle can accompany discoid meniscus, and how does it affect the outcome?

Discussion

Congenital discoid meniscus is a rather confusing entity. If a discoid meniscus is present at all, it is obviously present during childhood, yet it is often asymptomatic until adult life. When symptomatic during childhood, the symptoms are variable and inconsistent, including clunking, giving way, snapping, locking, or lack of mobility. If the child is hampered to the degree that the parents seek medical attention, there should be objective physical findings that indicate intra-articular pathology. Quadriceps atrophy, which appears after a few weeks of protecting the knee, lack of full extension, and joint line tenderness are helpful signs. Dickhaut noted a palpable snap near complete extension in all six children/adolescents they treated for discoid meniscus. Effusion is less common. Routine radiography may reveal a widened lateral joint space, MR imaging reveals the lateral meniscus height to be greater than the medial, with a high intrameniscal signal.

Many present day writers use the classification system of Watanabe in describing the discoid meniscus; an incomplete meniscus, a complete discoid meniscus, and the Wrisberg type. The difference between the complete and incomplete is subjective and not of much clinical significance. The Wrisberg type is characterized by the presence of the ligament of Wrisberg passing from the posterior horn of the lateral meniscus to the posterior portion of the medial femoral condyle, and a lack of posterior attachment of the discoid meniscus. Such a meniscus would be unstable and displaced medially, laterally, or anteriorly. There is general agreement that the Wrisberg type of lateral discoid meniscus should be completely removed, as partial meniscectomy in this setting would leave an unstable posterior rim. There is considerable variation in the reported incidence of the Wrisberg type of discoid meniscus. Dickhaut reported all 6 children had a Wrisberg type of meniscus, Aichroth noted the majority of children had a Wrisberg type, others such as Pellacci found a low incidence or none at all.
If a peripheral attachment of the meniscus is noted, saucerization may be performed, leaving a rim of about 6-8 mm. Longterm results of knees treated with open meniscectomy are good, but osteoarthritic changes were often noted in a recent longterm study. Osteochondritis dissecans of the lateral femoral condyle is seen in a minority of knees with discoid menisci, but is associated with a poorer prognosis when present. Discoid meniscus appears to be more common in children of Asiatic descent.

References


