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The Core Curriculum

Transient synovitis of the hip

Objectives

1. Define transient synovitis
2. Describe presenting symptoms and natural history of transient synovitis
3. Describe the differentiation of transient synovitis from septic arthritis

Discussion points

1. Should all "irritable hips" be evaluated with ultrasonography?
2. Should patients with suspected transient synovitis undergo hip aspiration?

Discussion

Transient synovitis of the hip is one of the most commonly seen hip disorders in children. It is most commonly seen in children younger than age 8. Anterior groin or thigh pain accompanied by limp or reluctance/refusal to weightbear are the usual presenting symptoms. Restricted hip motion is noted, particularly abduction and internal rotation. An effusion without capsular thickening can be noted on ultrasound. The natural history is benign, usual complete resolution is noted in a week or less. No treatment is necessary. Recurrence is not rare, mostly within 6 months. A viral etiology has been suspected on the basis of increased blood interferon in children with transient synovitis, although no viral antibodies were found in two recent studies looking for them.

The two major clinical problems associated with transient synovitis have dealt with its possible association with subsequent development of Legg-Calvé-Perthes syndrome, and the differentiation of transient synovitis from septic arthritis. A number of follow-up studies are now available, some of which could detect no relationship with subsequent acquisition of Legg-Calvé-Perthes syndrome, or a subsequent incidence of 1-2%. Thus, most, but not all authors discount the need for routine follow-up of children with transient synovitis after acute symptoms have resolved. The intraarticular pressure accompanying toxic synovitis is below arteriolar pressure in the position of comfort, it is raised dramatically with extension and internal rotation.

Kocher has recently analyzed data on children with septic arthritis and transient synovitis, and concluded there were 4 major predictors to study - history of fever, non weight-bearing, ESR > 40mm/hr, and WBC > 12.000. If one predictor was present, the predicted probability of septic arthritis was 3%, for two - 40%, for 3 - 93%, and for 4 - 99%. Obviously, the definitive diagnosis is dependent on aspiration of the hip joint. Another described approach was to aspirate the hip as an outpatient, and defer admission for toxic synovitis. However, McGoldrick found ultrasound less discriminating than physical assessment, comforting to those of us who are believers in the value of the physical exam.

With the rapid clinical resolution of transient synovitis, aspiration for other than diagnostic purposes is recommended only by Kesteris who felt it further shortened the clinical course.

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