



POSNA

The Core Curriculum

Osteochondritis dissecans - elbow

Objectives

1. Define osteochondritis dissecans, Panner's disease
2. Describe clinical and radiographic features of osteochondritis dissecans of the elbow and Panner's disease
3. Discuss prognosis for osteochondritis dissecans of the elbow and Panner's disease
4. Discuss imaging of osteochondritis dissecans of the elbow and Panner's disease
5. Describe treatment measures for osteochondritis dissecans of the elbow and Panner's disease

Discussion

The separation of osteochondritis dissecans of the elbow and Panner's disease is worthwhile. Panner's disease affects younger children (7-12), is characterized radiographically by fragmentation of the capitellar epiphysis, but not collapse. Clinically, there is elbow pain, and an occasional effusion. Lack of complete extension is often noted. Panner's disease is self-limiting and requires no treatment other than rest, especially if throwing is painful. Osteochondritis dissecans occurs predominately in the adolescent age group, and is more debilitating. Flattening and fragmentation of the capitellum is noted radiographically. Gymnasts and baseball players, especially pitchers, are most vulnerable. Pain is a common presenting complaint, and lack of extension is almost universal. Locking and catching of the elbow may accompany more advanced lesions. The radial head can also be involved with a similar process. Takahara found osteochondritis dissecans of the elbow in 3/45 young baseball players, all pitchers, in a screening study of talented players. The 45-degree flexion view was more rewarding than the standard AP elbow view. He has several recent studies delineating the imaging findings; it appears the osteochondritis dissecans of the capitellum is less inclined to heal than osteochondritis dissecans of the knee; nondisplaced fragments, even with intact overlying cartilage, did not heal. Earlier lesions characterized by flattening only could heal. Avulsion fractures of the lateral capsule have also been found to have negative prognostic significance. All these factors would certainly contribute to the high incidence of arthritic changes in follow-up studies of osteochondritis dissecans of the elbow, at 12-year follow-up more than half had residual symptoms associated with activities of daily living. Bauer's results were similar. High level female gymnasts with this lesion have a very poor chance of returning to their previous level of competition. Arthroscopic debridement of the fragments appears to improve short term results, but there is little reason to be optimistic about longterm results. Radial head enlargement accompanies osteochondritis dissecans in about 2/3 of the patients; it can even lead to acquired dislocation of the radial head.

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