

Outcomes of Initial Conservative Treatment in Adolescent Patients with Stable Osteochondritis Dissecans of the Elbow. Brionna M Sandridge BS, David R Howell PhD, Jay C Albright MD, Department of Orthopedics, Children's Hospital Colorado, Aurora, CO.

Purpose of Study: Osteochondritis dissecans (OCD) is a disorder characterized by separation of subchondral bone and articular cartilage from underlying bone due to lack of blood supply. Effective treatment of elbow OCD is still debated. The purpose of this study is to compare the characteristics and clinical outcomes of adolescent patients diagnosed with stable OCD of the elbow who either progressed to surgery or did not after initial conservative treatment.

Methods Used: We performed a retrospective chart review of patients 5-18 years of age who were diagnosed with stable OCD of the elbow and initially underwent conservative treatment. Demographic, radiologic, and clinical outcome variables were collected. Statistical analysis was performed with Stata version 15.

Summary of Results: We identified 18 patients to meet inclusion criteria; 11 progressed to surgery and 7 did not. There were no significant differences between groups regarding demographic variables or clinical outcomes. Loss of range of motion was seen in 64% of patients who progressed to surgery and in 29% of those who did not ($p = 0.34$). While there were no significant differences in radiographic measurements between groups, those who progressed to surgery had greater average lesion sizes than those who did not ($p=0.22$).

Conclusions: Overall, there were no significant differences between patients who progressed to surgery versus those who did not regarding patient characteristics or clinical outcomes. However, it may be clinically useful to consider loss of range of motion and size of lesion when treating these patients. Factors associated with healing of stable OCD lesions and the benefits of conservative treatment should be further investigated.