

Outcomes of Initial Conservative Treatment in Adolescent Patients with Stable Osteochondritis Dissecans of the Elbow.

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OBJECTIVE

- 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

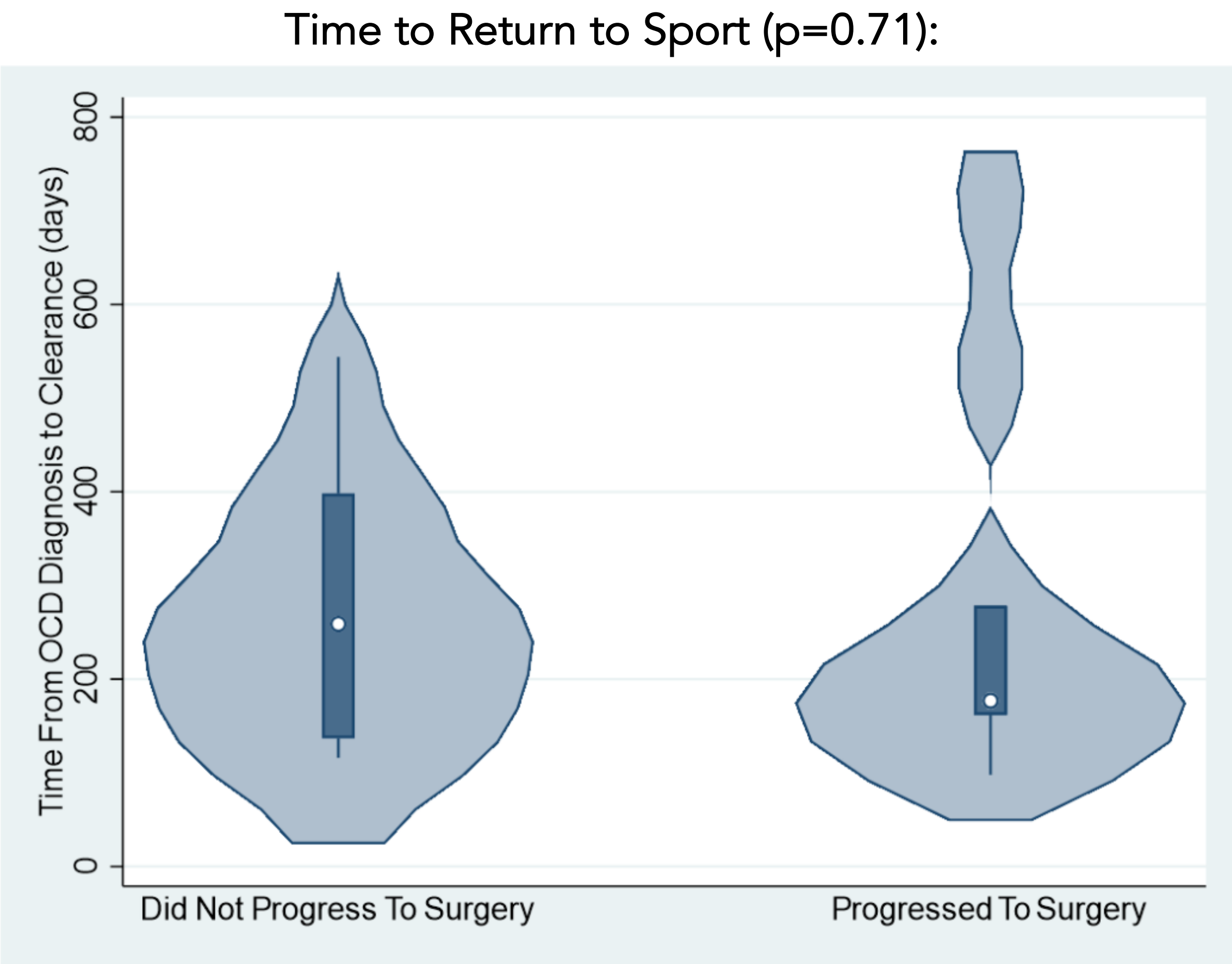
METHODS

- 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 at Children’s Hospital Colorado
- Demographic and radiographic variables included age, sex, skeletal maturity, and lesion size
- Clinical outcomes included time to return to sport and need for second surgery
- Statistical analysis was performed using T-tests, Mann Whitney U tests, and Fisher’s exact tests with *Stata version 15*

RESULTS

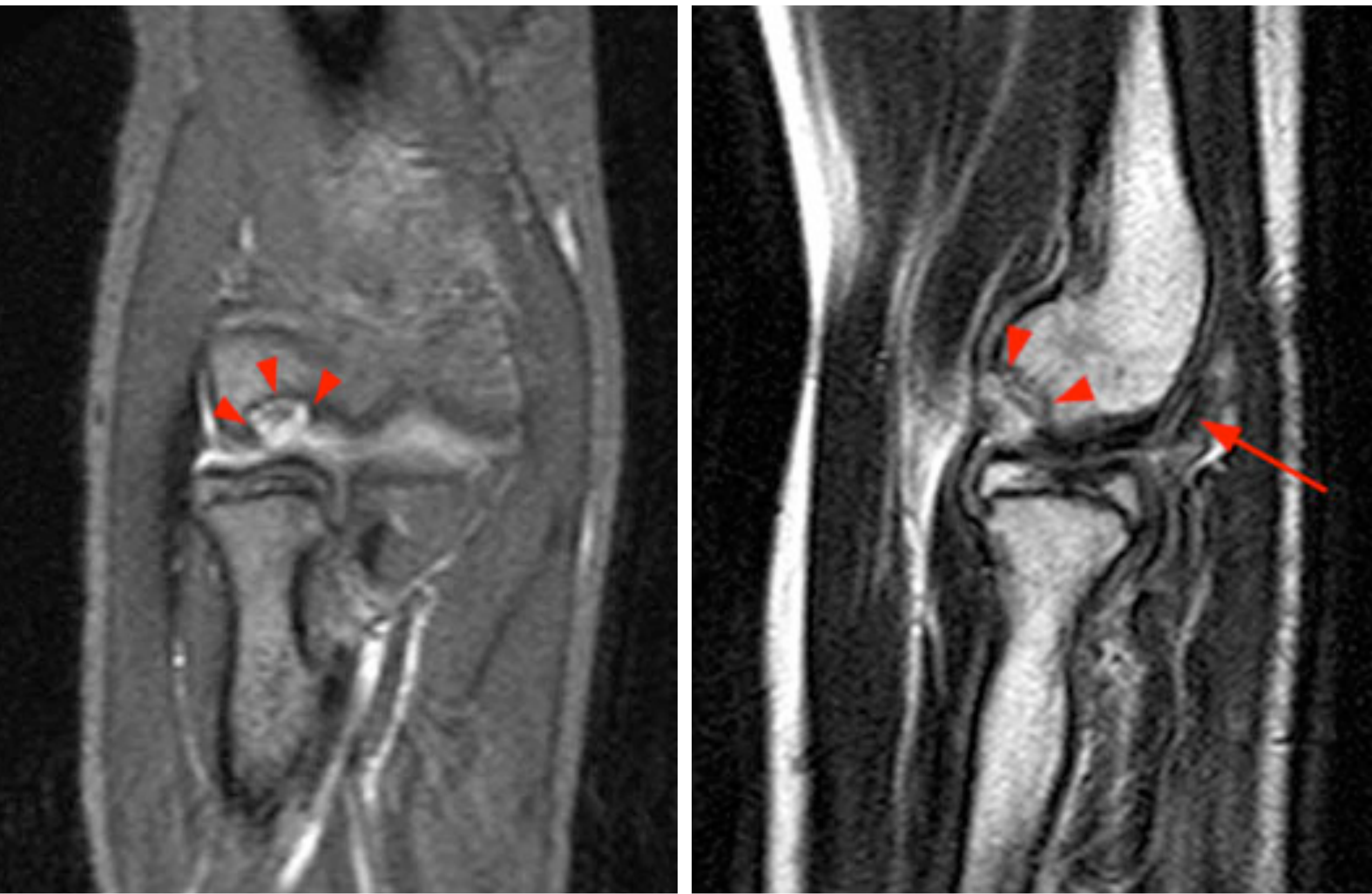
Patient Characteristics				Radiographic Measurements			
Progressed to Surgery?	Yes (n=11)	No (n=7)	P-Value	Progressed to Surgery?	Yes (n=11)	No (n=7)	P-Value
Sex			0.63	OCD lesion size: x-ray (mm)	100.1	73.6	0.12
Male	7 (36%)	3 (57%)		Normalized OCD lesion surface area: x-ray	0.07	0.05	0.22
Female	4 (64%)	4 (43%)		OCD lesion size: MRI (mm)	135.9	119.0	0.59
Age (years)	12.3	12.4	0.85	Lesion Grade: MRI			0.05
Skeletally Mature	1 (9%)	0 (0%)	>0.99	Grade 1	2 (18%)	5 (71%)	
Private Insurance	7 (64%)	6 (86%)	0.60	Grade 2	7 (64%)	1 (14%)	
Loss of Range of Motion	7 (64%)	2 (29%)	0.34	Grade 3	2 (18%)	1 (14%)	

Clinical Outcomes			
Progressed to Surgery?	Yes (n=11)	No (n=7)	P-Value
Need for Second Surgery	1 (9%)	0 (0%)	>0.99
Returned to Sport	9 (82%)	7 (100%)	0.50



Violin plot describing the distribution of time from OCD diagnosis to medical clearance to participate in sports in each group. Data are presented as median (center dot) and interquartile range (box around the median). The shaded blue area represents the probability density of data at each return to play time, smoothed using a kernel density estimator.

RADIOGRAPHIC IMAGES OF OCD



CONCLUSIONS

- Overall, no significant differences seen between groups regarding demographic or radiographic characteristics
- No significant differences in clinical outcomes
- May be clinically useful to consider loss of range of motion and size of lesion when treating patients with stable OCD of the elbow
- Factors associated with healing of stable OCD lesions and the benefits of conservative treatment should be further investigated
- Limitations to consider when interpreting these findings include the retrospective nature of the study as well as the short duration of the study period