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### Conservative Management of Medial Femoral Condyle Osteochondritis Dissecans in the Pediatric Knee

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# Conservative Management of Medial Femoral Condyle Osteochondritis Dissecans in the Pediatric Knee

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## Children’s Mercy Kansas City

### Background

- OCD (osteochondritis dissecans) is osteonecrosis of subchondral bone that affects active pediatric knees, most common at the medial femoral condyle (MFC) of the knee
- Limited data exists on which conservative management method is the best
- Our study aims to determine the role of knee ranger brace, cylinder cast, or activity modification in treating juvenile OCDs

### Methods

- Retrospective analysis of internal OCD registry
- Demographic, radiographic data, weight bearing status, physical therapy participation, and progression to surgery were analyzed
- Treatment effectiveness was determined based on radiographic healing, symptom resolution, and return to activity/sport with failure of conservative management defined as progression to surgery

### Demographics

Subjects (N=168)	
Age at presentation -- median [IQR]	
	11 [10, 12]
Sex -- n (%)	
Female	58 (34.5%)
Male	110 (65.5%)
Race	
African American or Black	30 (17.9%)
Asian	4 (2.4%)
Hispanic	5 (3.0%)
White	121 (72.0%)
Multiracial	7 (4.2%)
Other	1 (0.6%)
BMI at presentation -- median [IQR]	
	18.8 [17.0, 22.5] (n=143)
Sports Participation -- n (%)	
No	20 (11.9%)
Yes	129 (76.8%)
Unknown	19 (11.3%)
Treatment	
Knee Ranger Brace	62 (36.9%)
Cylinder Cast	54 (32.1%)
Activity Modification	52 (31.0%)

### Results

- 148 patient with 168 lesions identified
- Median age at presentation 11y/o
- 65.5% male, 34.5% female
- Conservative management success rate was 80.7% for the knee ranger group, 79.5% of the cylinder cast group, and 84.6% of the activity modification group
- Average time in PT was 6 weeks for the knee ranger and cast groups and 9 weeks for activity modification
- Most patients were able to return to sport by 6mo, regardless of conservative management modality

### Conclusions

- MFC OCD lesions of the knee can be appropriately treated with the use of knee ranger brace, cast, or activity modification with similar outcomes.
- We believe this study will provide practical evidence regarding conservative management of MFC OCD lesions.

