

Title: Conservative Management of Kienbock's Disease in a 7-year old: A Case Report

Abstract

Background: Kienbock's disease is primarily seen in young adult males but has been recognized in skeletally immature populations as well. Traditional treatment strategies recommend operative treatment but high remodeling potential in children may allow conservative management.

Case Description: We present the case of a 7-year-old female with two months of atraumatic right wrist pain who was found to have edematous signal change within the lunate on wrist MRI consistent with Kienbock's disease. She was treated with rigid immobilization for 12 weeks and transitioned to custom orthotic splint for another 3 months during activities. At her 6-month follow-up, she reported minimal wrist pain with repeat MRI demonstrating resolution of lunate edema.

Literature Review: Available literature shows a significant portion of patients treated conservatively subsequently require surgical intervention due to unresolved symptoms or progressive disease. Only three cases are reported in the literature where skeletally immature patients were successfully treated with conservative management alone

Clinical Relevance: We report the youngest case of Lichtman stage I Kienbock's disease successfully treated with conservative management resulting in clinical and imaging resolution. Younger patients may be able to successfully remodel and recover from Kienbock disease with extended time in conservative management.