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Human Anatomy

Mr. Gunn

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**Shoulder Injuries in the Overhead Throwing Athlete**

Lin DJ, Wong TT, Kazam JK. Shoulder Injuries in the Overhead-Throwing Athlete: Epidemiology, Mechanisms of Injury, and Imaging Findings. Radiology. 2018 Feb;286(2):370-387. doi: 10.1148/radiol.2017170481. PMID: 29356641.

This article discusses throwing athletes and the unique injuries to their shoulders compared to athletes who do not throw and the general population. These injuries require radiologists who work in both clinical and hospital settings to know about how the shoulder moves in these athletes and where these injuries occur. This study was published in 2018 and looked at the mechanics of throwing, how maximum external rotation is achieved in throwers vs. non-throwers and the common injuries and what they look like to the radiologist and physician.

This article was not about a specific study, but about the importance of radiologists knowing how to read the scans of these patients and knowing what to look for and how these injuries happened, so there was no control group. These injuries are becoming more common in throwing athletes because of the level and amount of play from little league to professional with 2 out of 100 little league baseball players have shoulder injuries to approximately 58 out of 100 professional baseball players. These numbers do not include other athletes who use an overhead motion such as tennis and volleyball. Because shoulder injuries are becoming more common, the radiologist must know how to get the right image and what position to place the patient when doing MRI's, US and CT scans to get that image. If the radiologist places them as they would the general population, they could miss injuries.

GIRD (Glenohumeral internal rotation deficit), internal impingements, rotator cuff tears, labral tears, anterior capsule injuries, subscapularis tendon tears, lesser

tuberosity avulsion fractures, Bennett lesions, posterior muscle and myotendinous injuries, proximal humeral epiphysiolysis, and Glenoid osteochondral injuries are all common in overhead throwing athletes and it is very important to these athletes futures that they get proper treatment based on radiological findings. It is vital for radiologists to know how these injuries occur and the best positions to place the patient in to get the best image in order to provide the best care for that athlete.

This article was interesting to me because as a softball catcher. I would make thousands of overhead throws a week. Many people do not think about how many throws catchers actually make, and because of that, I developed some of these shoulder injuries discussed in the article which kept me from playing softball for a little more than a year. I was fortunate to have good medical care and I am back, better than ever. I never thought about it, but it is not only the orthopedic surgeon but the radiologists who obtain the images of injuries that helped discover my torn labrum, rotator cuff and internal impingement. If the radiologist was not familiar with shoulder injuries and how to take the images, I might have not gotten the repairs that I needed. I found it interesting to see how these injuries occur and how the images need to be taken to get the best view of the injuries.