Image Diagnosis: Shoulder Dislocations

Shoreh Kooshesh, MD  
Gus M Garmel, MD, FACEP, FAAEM

The anterior dislocation is characterized by subcoracoid position of the humeral head in the anterior-posterior view. The glenohumeral joint is the most commonly dislocated joint in the body. Anterior dislocations are usually caused by a fall, but can occur spontaneously; they account for approximately 95% of all shoulder dislocations.

Figure 1A: Anterior Shoulder Dislocation, Anterior-Posterior view

Figure 1B: Anterior Shoulder Dislocation, Lateral View

Figure 2A: Posterior Shoulder Dislocation, Anterior-Posterior View

Postreduction films should be obtained to look for fracture and confirm proper reduction. A Hill-Sachs fracture is a depression of the posterolateral aspect of the humeral head that is common with recurrent dislocations. Following successful reduction, the patient’s arm should be placed in a broad arm sling.
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Figure 2B: Posterior Shoulder Dislocation, Transcapular Y View
The transcapular Y view demonstrates the humeral head posterior to the glenoid. Posterior dislocations are caused by severe internal rotation and adduction. The mechanism of injury is an important clue to the type of dislocation. Posterior dislocations usually occur during a seizure, lightning strike, or fall on an outstretched arm. Reduction is performed with gentle traction on the humerus, in addition to gentle anterior pressure while coaxing the humeral head over the glenoid rim. Slow external rotation may be necessary to complete the reduction. Postreduction films are recommended.

Figure 3A: Inferior Shoulder Dislocation, Anterior-Posterior View
Figure 3A demonstrates an inferior shoulder dislocation, also known as luxatio erecta. This type of dislocation is rare, with an incidence of less than 1% of all shoulder dislocations. The arm is raised, abducted, and fixed, with the humeral head subcoracoid in position. The patient often presents with their arm resting on top of their head.

Figure 3B: Inferior Shoulder Dislocation, Lateral View
Figure 3B demonstrates the lateral view of the inferior dislocation. The mechanism responsible for this dislocation is an axial force applied to an arm while raised overhead or indirect forces hyperabducting the arm. The neck of the humerus is levered against the acromion and the inferior capsule tears, forcing the humerus out inferiorly. There is a high incidence of neurovascular damage, specifically to the axillary nerve and artery. To reduce an inferior dislocation, gentle axial traction on the humerus should be applied in addition to gentle abduction. Countertraction across the ipsilateral shoulder by an assistant during the procedure helps with successful reduction.

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