Case 15

History
Fell on shoulder.

Findings
There is no fracture. There is widening of the acromioclavicular joint. The clavicle is elevated relative to the acromion with the coracoclavicular distance being greater than 13 mm.

Diagnosis
Severe sprain /grade III Acromioclavicular joint.

Discussion
AC joint injuries are described as mild (grade I), moderate (grade II) or severe (grade III).

A mild sprain consists of minor injuries to the fibers of the AC joint. Radiographs are normal.

A moderate sprain consists of disruption of the acromioclavicular ligaments with posterior displacement of the distal part of the clavicle that manifests on AP radiograph as AC joint widening. The normal AC joint measures between 3-5mm but may measure up to 7mm and even 8mm by some sources. The difference between the two sides should measure no more than 2mm however. There may be some minimal elevation of the distal clavicle relative to the acromion but the coracoclavicular distance remains normal.

A severe sprain is a disruption of both the acromioclavicular ligaments and the coracoclavicular ligaments. These injuries lead to elevation of the distal clavicle and widening of the coracoclavicular space, the space between the coracoid and the undersurface of the clavicle. The normal coracoclavicular distance is 11-13 mm. Coracoclavicular ligamentous disruption is also likely if the difference between the two sides is 5 mm or greater.

The coronal T2-weighted fat saturation MR below shows a grade III AC separation as annotated.
References

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