Variability of the capsular anatomy in the rotator interval region of the shoulder

Cita:


Abstract

Purpose: Anterior shoulder anatomy is as complex and variable as its descriptive terminology. A detailed understanding of normal anatomic variability is critical to accurate performance, description, and evaluation of the procedures involving the rotator interval. We aimed to define, arthroscopically, the anatomic variability in the rotator interval region of the shoulder and to compare these results to the findings of previous cadaveric studies.

Methods: The rotator interval anatomy of 104 consecutive patients was classified according to the system of DePalma. Anatomic variability was evaluated and compared with findings of previous authors.

Results: Shoulders were classified as follows: 59% type 1 (rotator interval capsular opening [RICO] superolateral to the MGHL); 1% type 2 (RICO inferomedial to the middle glenohumeral ligament [MGHL]); 22% type 3 (2 RICOs: 1 above and 1 below the MGHL); 9% type 4 (large RICO, no MGHL); 0% type 5 (the MGHL is manifested as 2 small RICOs); 7% Type 6 (no RICO); and 3% distinct Buford complex. We found a larger percentage of type 1 shoulders and a lower percentage of type 3 shoulders relative to prior open cadaveric dissections. No difference in the distribution of DePalma types was noted based surgical indication.

Conclusions: The anatomy of the rotator interval as viewed arthroscopically is complex and variable. While DePalma types 1 and 3 are most commonly encountered, other anatomic variants are frequent and should be considered when assessing and manipulating structures in region of the rotator interval and anterior shoulder.