

Infraspinatus Tenotomy Improves Glenoid Visualization with the Modified Judet Approach

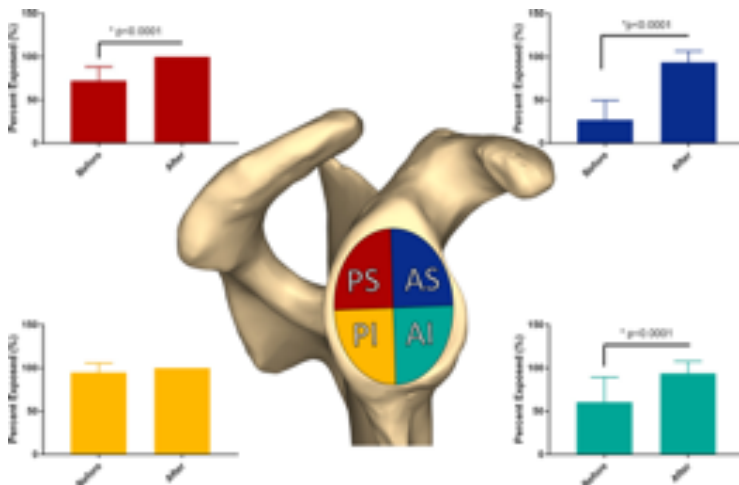
*John Garlich, MD; Katherine Grace Samuel; Trevor Nelson, BS; Carl-Henri Monfiston, MS; Thomas J. Kremen, MD; Melodie Metzger, PhD; Milton Thomas M. Little, MD
Cedars-Sinai Medical Center, Los Angeles, CA, United States*

Purpose: Operative treatment of glenoid and scapular fractures are challenging due to the limited visualization of the glenoid articular surface despite extensive exposures and dual approaches. While the addition of an infraspinatus tenotomy to the modified Judet approach (MJA) has been suggested to improve glenoid visualization, no study has specifically investigated this technique. The objective of this study was to quantify and compare the square area of the glenoid seen through the MJA with and without an infraspinatus tenotomy.

Methods: An MJA was performed on 14 human cadaveric shoulders. Margins of glenoid exposure were marked with a surgical drill before and after adding an infraspinatus tenotomy. The humerus was disarticulated, and the marked margins were confirmed and traced with a surgical pen. The area of the entire glenoid and each of the 4 quadrants (anterior-superior [AS], anterior-inferior [AI], posterior-superior [PS], and posterior-inferior [PI]) were analyzed using a custom image processing program to quantify the amount of glenoid exposure and percentage of area visualized before and after the tenotomy.

Results: Adding a tenotomy to the MJA significantly increased total glenoid area (cm²) exposure by 33%, $P < 0.0001$. Three of 4 glenoid quadrants (PS, AS, and AI) had a significant increase in glenoid visualization after the tenotomy, $P < 0.0001$. The AS quadrant had the most significant increase in square area visualized (66%, $P < 0.0001$).

Conclusion: This is the first study to quantify glenoid visualization with and without the addition of an infraspinatus tenotomy to the MJA. The AS quadrant is the most difficult to see using the MJA. The addition of an infraspinatus tenotomy improves glenoid exposure, especially to the AS quadrant. With the addition of an infraspinatus tenotomy and its improved visualization of the AS quadrant, the need for a secondary anterior approach may be unnecessary.



See the meeting app for complete listing of authors' disclosure information.