

## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Orthopedics*

**Manuscript NO:** 65636

**Title:** Comparing shoulder maneuvers to magnetic resonance imaging and arthroscopic findings in patients with supraspinatus tears

**Provenance and peer review:** Unsolicited manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 04161613

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Doctor

**Reviewer's Country/Territory:** United States

**Author's Country/Territory:** Brazil

**Manuscript submission date:** 2021-03-11

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2021-06-22 10:32

**Reviewer performed review:** 2021-06-22 18:22

**Review time:** 7 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

<b>Peer-reviewer statements</b>	Peer-Review: [ <input checked="" type="checkbox"/> ] Anonymous [ <input type="checkbox"/> ] Onymous Conflicts-of-Interest: [ <input type="checkbox"/> ] Yes [ <input checked="" type="checkbox"/> ] No
-------------------------------------	---

## SPECIFIC COMMENTS TO AUTHORS

The authors conducted a prospective study of 720 patients consecutively seen for shoulder pain at four orthopedic centers. The final cohort consisted of 199 patients who all underwent arthroscopy because of shoulder pain persisting for a period of four weeks to three months irregardless of findings found on an MRI and in the absence of exclusionary criteria. The goal of this study was to evaluate and compare findings from physical examination and MRI to arthroscopy. The cohort was not uniform in that some patients underwent physiotherapy between the physical and arthroscopic examination and some patients had both a supraspinatus and infraspinatus tear. The authors should specify the number of patients in each of these subgroups. This latter finding was not insignificant in that the authors believed that it caused or contributed to the high specificity of the clinical tests results. Additionally, why was the principal surgeon performing the arthroscopy not blinded to the results of the shoulder maneuvers tests? Why was it important the he/she have knowledge of the physical examination findings? The authors did not include any specific information about the physical examination tests results in patients found on arthroscopy to have an intact tendon. Additional edits and questions Title Consider the revised title "Comparing shoulder maneuvers to MRI and arthroscopic findings in patients with supraspinatus tears." Abstract Line 4. Shoulder maneuvers and magnetic resonance imaging are performed to diagnose supraspinatus tendon tears irregardless of whether arthroscopy is considered. Line 7. The study compared the sensitivity and specificity of shoulder maneuvers and magnetic resonance imaging to arthroscopic findings (intact, partial, or full thickness supraspinatus tendon tear). Methods Line 15. 199 consecutive patients met

eligibility criteria of having shoulder pain persisting for at least four weeks.

**Conclusion** Line 37-39. The authors concluded that MRI had a greater accuracy in excluding tears. This finding suggests that there may be a high false positive physical examination test results rate in patients with an intact tendon. Data on the 47 patients (approximately 25% of the cohort) with an intact tendon must be reported as this is essential to the discussion, conclusion, and core tips.

**Introduction** Line 66. Delete semicolon and separate into two sentences.

**Study design** Line 85. Please clarify this sentence. "3 months or more from the period of the physical examination and MRI to arthroscopy.

**Results** Line 188-192. This paragraph should be rewritten for better clarity. A total of 720 patients were consecutively seen at four orthopedic centers of which 199 met enrollment criteria. Line 201-202. This data should be included. What was the false positive and negative rate in the group with intact tendons?

**Discussion** Line 250. Please separate into two sentences. Please clarify the statement "associated rotator cuff lesions" on Line 252. Lines 254 to 258. These sentences are redundant. Lines 257 to 261. Move "The drop arm test had similar specificity to MRI for supraspinatus tears" to the previous paragraph. Lines 259 to 261. This information as previously stated needs to be better clarified in the results section.

**Limitations** Lines 264 to 268. This is not a limitation. Lines 275 to 277. It is not clear how adding a second surgeon reduced the bias. Lines 278 to 281. This is not a limitation.