

USE OF CLINICAL TEST CLUSTERS VERSUS ADVANCED IMAGING STUDIES IN THE MANAGEMENT OF PATIENTS WITH A SUSPECTED SLAP TEAR

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ABSTRACT

Background and Purpose: The Magnetic Resonance Arthrogram (MRA) has served as the gold standard for identifying patients with possible Superior Labrum Anterior-Posterior (SLAP) lesions and are often required by orthopaedic surgeons prior to clinical evaluation. However, as the literature shows MRA sensitivity as 0.65-0.98, and specificity between 0.80-1.00, there is still room for misinterpretation of the imaging study, and potential mismanagement of a patient who may or may not exhibit a true SLAP lesion. It is proposed that by grouping a series of clinical special tests it may be possible to develop greater sensitivity in identifying a SLAP lesion, resulting in the ability to better manage this patient population, thus avoiding unnecessary and costly imaging studies and decreased referrals to surgical specialists. The purpose of this study is to examine specific combinations of SLAP lesion special tests and identify which clusters of tests have the highest sensitivity and specificities. This may allow therapists to improve the management of their patients by reliably diagnosing a SLAP lesion and referring only those who may need surgery to a physician.

Study Design: Literature review, diagnostic sensitivity/specificity outcomes

Methods: A retrospective search of the current peer-reviewed literature was performed in an effort to identify the clinical special tests with the greatest sensitivity and specificity in identifying SLAP lesions. Based upon that search, the study was limited to five special tests: Biceps Load I, Biceps Load II, Speed's, Passive Compression, and O'Brien's tests. A multiple regression analysis was performed that looked at grouping of the tests to determine the diagnostic sensitivity/specificity when grouped.

Results: Obtaining positive results on three of the five special tests resulted in a sensitivity of 0.992-0.999 and a specificity of 0.992-0.999. The combination of the Biceps Load I/II and O'Brien's showed the highest sensitivity and specificity.

Conclusion: The results indicate that a combination of at least three positive SLAP lesion tests may be clinically useful in diagnosing a shoulder SLAP lesion with greater diagnostic accuracy than those reported for MRI/MRA, thus improving patient management by referring only those who may require surgical intervention to a physician.

Level of Evidence: 2c, "Outcomes" Research

Keywords: Magnetic resonance imaging, Magnetic resonance arthrogram, medical imaging accuracy, movement system, SLAP tear

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