

Editorial Commentary: Pursuit of Value-Based Care for SLAP Lesions: More Work to Be Done



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Abstract: Type II SLAP tears are considered the most common type of SLAP lesions. However, the management of type II SLAP tears in middle-aged patients is challenging because recent evidence suggests that there is a high prevalence of type II SLAP lesions in the asymptomatic middle-aged shoulder. Treatment options for type II SLAP lesions in middle-aged patients may include biceps tenodesis, SLAP repair, or nonoperative treatment. Value-based research suggests that biceps tenodesis is the preferred cost-effective treatment modality in middle-aged patients. However, the treatment of type II SLAP lesions in younger patients is more nuanced, and isolated type II SLAP lesions in middle-aged patients are a rare, frequently misdiagnosed, and overtreated entity. As such, more work is needed to better understand the health economics of SLAP treatment across different age groups and activity levels.

See related article on page 2019

There is an increasing emphasis on value-based approaches to clinical research questions.¹ In the study entitled “Treatment for Symptomatic SLAP Tears in Middle-Aged Patients Comparing Repair, Biceps Tenodesis and Non-operative Approaches: A Cost-Effectiveness Analysis,”² Paoli, Gold, Mahure, Agten, Mai, Rokito, and Virk sought to compare the cost-effectiveness of the 3 aforementioned treatment interventions for type II SLAP tears in the middle-aged patient population. The authors found that primary biceps tenodesis dominated primary repair (providing higher quality adjusted life years at lower cost) and was more cost-effective than nonoperative treatment.

Type II SLAP tears are considered the most common type of SLAP lesion and are described as a detachment of the superior glenoid labrum that affects the attachment of the long head of the biceps tendon. The management of these lesions can be challenging. Cross-sectional studies have shown that there is a high prevalence of SLAP pathology identified in middle-aged patients with

asymptomatic shoulders.³ Given the high prevalence of this condition, diagnosing a SLAP tear (especially in middle-aged patients) as the isolated clinical entity attributable for shoulder dysfunction can be challenging especially because SLAP tears are often identified at surgery for patients with other painful shoulder conditions. In fact, there is considerable controversy as to whether SLAP tears are an actual clinical problem in middle-aged patients. Beyond the diagnostic challenge, there is no clear consensus on the preferred treatment strategy for these lesions. There is an increasing body of evidence to suggest that biceps tenodesis is preferred for middle-aged patients with an isolated symptomatic type II SLAP tear; however, the evidence is weak.⁴⁻⁶ In the setting of an evolving evidence base, the current study by Paoli et al. is welcomed as another data point in the treatment algorithm for SLAP tears.

Given that there are a multitude of clinical factors that should be considered in the treatment of SLAP tears, the authors of the study under commentary sought to be very specific in their analysis: (1) isolated type II SLAP lesion and (2) middle-aged patients. Although the high degree of specificity improved the validity of their findings, we believe that the authors’ study has limited clinical applicability. For example, the study provides no guidance on the preferred treatment for younger patients with SLAP lesions. In the senior commentator’s practice (N.N.V.), for patients younger than 30 years

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with clinical and imaging findings consistent with isolated SLAP pathology and the absence of biceps tenderness, SLAP repair is preferred. However, when biceps symptoms (such as groove pain or anterior shoulder pain radiating to biceps) are present, tenodesis is preferentially performed. Further calling into question the clinical applicability and generalizability of the authors' study is institutional experience within Midwest Orthopedics at Rush University.⁷ In the senior commentator's experience, isolated SLAP pathology requiring surgery is an uncommon occurrence in middle-aged patients, and as such isolated SLAP repair is uncommonly performed or considered in this age group. We believe that poor outcome and complications relating to SLAP repair in middle-aged patients are attributable to misdiagnosis and subsequent over-treatment of a likely anatomic variant.

With regard to the strength of cost-effectiveness analysis performed, the authors should be commended on performing a diligent economic analysis. The quality of cost-effectiveness analyses within orthopaedics can be highly variable and is often low.⁸⁻¹¹ Paoli et al. used a societal cost perspective consisting of direct and indirect costs. Direct costs were derived from Medicare reimbursement data, whereas indirect costs consisted of lost productivity. In addition, the authors reported the incremental cost-effectiveness ratio using 2 different cost perspectives (societal and health care payer). The authors' treatment of costs is more rigorous than what has been previously applied in orthopaedics and is consistent with the recommendations of the second panel on cost-effectiveness in health.¹² However, the strength of the analysis is limited by the authors' treatment of Medicare reimbursement costs as a direct cost. Traditionally, direct costs are considered the cost of goods sold, and although this can be difficult to tabulate in medicine, it is certainly not Medicare reimbursement. In addition, given that the base case analysis considered a non-Medicare patient population, we wonder why the authors used Medicare cost data as opposed to cost data from a private payer database, for example.

Overall, Paoli et al. provide an interesting study that can begin to inform value-based programs for shoulder conditions and specifically value-based SLAP treatment. Given the stated concerns about the clinical applicability of the study, we believe that as the SLAP evidence

base continues to evolve, health economic analysis for SLAP pathology can be further refined and revisited.

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