


Patch Reinforcement, Interposition or Augmentation?

Chris Hyunchul Jo 

Department of Orthopedic Surgery, SMG-SNU Boramae Medical Center, Seoul National University College of Medicine, Seoul, Korea

An irreparable rotator cuff tear is any rotator cuff tear that cannot be reduced and repaired to the greater tuberosity, and management of this tear without the evidence of the glenohumeral joint arthritis is a significant challenge for shoulder arthroscopists. Various treatment strategies have been reported to relieve pain and improve shoulder function including simple debridement with or without a tenotomy, partial rotator cuff repair with or without interval slide, tuboplasty, suprascapular nerve ablation, patch reinforcement, superior capsule reconstruction, insertion of a biodegradable spacer, and reverse total shoulder arthroplasty.¹⁾

Patch reinforcement can be performed either as augmentation or interposition with autograft,²⁾ allograft,³⁾ synthetic graft,⁴⁾ and xenograft.⁵⁾ However, studies have reported conflicting results with respect to the success of this technique.^{2,6)} Recent systematic review by Steinhaus et al.⁷⁾ provides a comprehensive review of clinical outcomes and retear rates with patch use in rotator cuff repair and to tell the differences between available graft types and techniques. This review reports improvements in clinical and functional outcomes with similar results for augmentation and interposition whereas xenografts showed less improvement than synthetic grafts and allografts in patient-reported outcomes and activities of daily livings. Retear rates may be lower with interposition or in patients with synthetic grafts or allografts.

In this issue, Jeong et al.⁸⁾ reported clinical and structural outcomes after arthroscopic repair in 12 patients with irreparable rotator cuff tears with interposition of human dermis allografts. The authors followed up patients at a minimum of 25 months and performed magnetic resonance imaging at an average of 6.5 months after surgery. The results of the study showed significant improvements of University of California, Los Angeles score and Korean Shoulder Scoring System score and 75.0% of graft incorporation with magnetic resonance imaging. Despite the absence of the structural outcomes at a later time, the results of this study are in line with the current results described in the above recent

systematic review suggesting that this technique might be a useful option for selected cases.

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 **Correspondence to:** Chris Hyunchul Jo

Department of Orthopedic Surgery, SMG-SNU Boramae Medical Center, Seoul National University College of Medicine, 20 Boramae-ro 5-gil, Dongjak-gu, Seoul 07061, Korea

Tel: +82-2-870-2315, **Fax:** +82-2-840-2453, **E-mail:** chrisjo@snu.ac.kr

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