Superior capsular reconstruction may be an option for the massive rotator cuff tear

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The massive rotator cuff tear is a challenging problem for both patients and physicians. The rotator cuff is a group of four tendons that helps hold the humeral head in place for the shoulder to properly function. When the tendons are torn, the rotator cuff is not able to aid in shoulder function and may cause pain and disability. A massive tear pattern can occur in the working age and active population that limits both productivity and recreational activities. Traumatic massive rotator cuff tears are commonly fixed soon after the injury; however, large, chronic tears can be a clinical challenge. If left untreated, a massive irreparable rotator cuff tear may progress to rotator cuff arthropathy. Rotator cuff arthropathy is arthritis of the shoulder joint without a functioning rotator cuff.

Initial treatment for a chronic massive rotator cuff tear is physical therapy and anti-inflammatory medications. If the nonoperative treatments are not successful, a surgical treatment may be considered. Some options include an arthroscopic rotator cuff repair. These are most commonly performed through several small incisions. A repair with or without graft augmentation is preferred. Certain rotator cuff tears are not amenable to traditional methods of fixation. Until recently, few options existed for these patients. New techniques have evolved to an arthroscopic surgery called superior capsular reconstruction.

Superior capsular reconstruction places a graft inside the shoulder joint. The procedure is also performed arthroscopically through several small incisions. The purpose of the superior capsular reconstruction is to improve the mechanics around the shoulder for better pain relief and function. While the technique is still new in the United States, early results are optimistic in certain patients. The theory behind the superior capsular reconstruction is that it restrains the humeral head in a more anatomic position to allow the muscles about the shoulder to work more effectively. This principle allows patients to more effectively participate in physical therapy and improve function.
Not all patients have rotator cuff disease that is amenable to a superior capsular reconstruction. Patients must have an irreparable rotator cuff tear in the absence of significant arthritis. Additional risk factors may limit the ability for the graft to heal, which increases the risk of failure; these risk factors should be discussed with your surgeon. A failed rotator cuff surgery may lead to additional surgical procedures. Despite early promising results, the long-term success of the technique is not known due to its recent adoption in the United States.

The superior capsular reconstruction is an exciting technique that may offer a surgical solution to the challenging problem of a massive rotator cuff tear in certain and properly indicated patients.

References