

## Is a New Era in Rotator Cuff Repairs Has Arisen?

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Received: 19 May 2018

Published: 24 May 2018

**Keywords:** *Rotator Cuff; Arthropathy; Autograft*

Irreparable rotator cuff tears have been defined as the tears that cannot be repaired primarily, because of their size and/or retraction. Patients suffering by this entity present with a variety of symptoms and physical findings. The treatment goals of the management of such tears are: pain reduction, shoulder motion and function restoration and deceleration of cuff tear arthropathy development. Current non-prosthetic treatment options include biceps tenotomy and debridement, partial rotator cuff repair, use of grafts and biodegradable subacromial spacers as well as latissimus dorsi transfer. Although they provide satisfactory results, each one has different factors which limit their clinical application.

The superior capsule reconstruction (SCR) is a novel, promising alternative treatment option for the treatment of massive, irreparable posterosuperior rotator cuff tears. It uses a graft stabilized between the superior glenoid and the greater tuberosity to stabilize the humeral head. The procedure was developed by Dr Teruhisa Mihata in Japan, who has refined the technique in such a way that it can be successfully and reliably performed by surgeon worldwide. The patch that is commonly used from the vast majority of surgeons is usually a thick dermal allograft, although Dr Mihata's original patch was an autologous one taken from the patient's thigh (fascia lata autograft). In their study, Mihata and colleagues, found an improvement of the American Shoulder and Elbow Surgeons (ASES) score from 23.5 preoperatively to 92.9 and the postoperative MRI showed that over 80% of patients had intact reconstruction with no progression of muscle atrophy [1]. The study concerned 23 patients who underwent SCR with a fascia lata autograft after a minimum of 2 years' follow-up. Many other studies have been published since then with similar results.

SCR theoretically improves glenohumeral kinematics and function by centering the humeral head. Providing a stable fulcrum, the deltoid and the remaining cuff can function more effectively. The early results indicate not only significant pain relief and improved function, but also increased strength. Moreover, if this method can be considered as a viable alternative to RTSA, it is an impressive evolution, providing that SCR has fewer risks and complications compared with RTSA and of course does not limit future surgical option that could be required.

We live in an exciting era for shoulder arthroscopy and even if patient selection and long-term benefits need to be investigated in further studies, it is impressive that the boundaries of the “tool of the devil’s” (aka arthroscope) widen more and more offering new horizons to the orthopaedic surgeons and proper solutions to the patients.

## **Bibliography**

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