LETTER TO THE EDITOR

Letter to the Editor

Advantages of Arthroscopic Transosseous Suture Repair of the Rotator Cuff without the Use of Anchors

Goran Bicanic MD, PhD, Nikola Cicak MD, PhD, Denis Trsek MD, Hrvoje Klobucar MD, PhD

Received: 14 November 2013/Accepted: 12 December 2013/Published online: 21 December 2013 © The Association of Bone and Joint Surgeons ® 2013

To the editor,

We read the article by Kuroda et al. [3] with great interest. In the current study, the authors describe a novel arthroscopic transosseous technique without the use of anchors. While we congratulate Kuroda and colleagues for an interesting concept and results, we believe it is necessary to emphasize several points. Matis and colleagues [4] previously described their transsoseus arthroscopical technique without the use of anchors, and Cicak et al. [1] described the technique with the use of anchors, but in transosseous manner. Following the publication of these studies, manufacturers developed a significant number of specially designed devices for arthroscopis transsoseus rotator cuff repair [2, 5].

Those techniques, which are based on the basic principle of transosseous fixation, have different limitations.

(RE: Kuroda S, Ishige N, Mikasa M. Advantages of arthroscopic transosseous suture repair of the rotator cuff without the use of anchors. Clin Orthop Relat Res. 2013;471:3514–3522.) The authors certify that they, or any members of their immediate families, have no funding or commercial associations (eg, consultancies, stock ownership, equity interest, patent/licensing arrangements, etc) that might pose a conflict of interest in connection with the submitted article.

All ICMJE Conflict of Interest Forms for authors and *Clinical Orthopaedics and Related Research*[®] editors and board members are on file with the publication and can be viewed on request. The opinions expressed are those of the writers, and do not reflect the opinion or policy of *CORR*[®] or the Association of Bone and Joint Surgeons[®].

G. Bicanic (🖂)

Clinical Hospital Centre Zagreb, University of Zagreb School of Medicine, Salata 7, 10000 Zagreb, Croatia e-mail: gbic@mef.hr

N. Cicak, D. Trsek, H. Klobucar Akromion Special Hospital for Orthopedic Surgery, Krapinske Toplice, Croatia

Kuroda et al. [3] reported that the technique cannot be used in shoulders where the stump of the torn rotator cuff does not emerge across the top of the humeral head under traction. Also, operative time is rather long, ranging from 80 minutes to 176 minutes. This likely will increase the cost of treatment, becoming more expensive than the price of anchors. This technique also is not suitable for women with osteoporosis, it increases the risk for pullout of the sutures. Finally, we believe this technique is only suitable for experienced shoulder surgeons because it is rather complex and time consuming; in particular, it is difficult to penetrate through the skin behind the AC joint with Kwires, especially in the lateral decubitus position. Most of the described limitations (except when there is osteoporotic bone) can be avoided with other techniques even when they are based on same biomechanical principle [1, 2, 4, 5].

References

- Cicak N, Klobucar H, Bicanic G, Trsek D. Arthroscopic transosseous suture anchor technique for rotator cuff repairs. *Arthroscopy*. 2006;22:565, e561–566.
- Garofalo R, Castagna A, Borroni M, Krishnan SG. Arthroscopic transosseous (anchorless) rotator cuff repair. *Knee Surg Sports Traumatol Arthrosc.* 2012;20:1031–1035.
- Kuroda S, Ishige N, Mikasa M. Advantages of Arthroscopic Transosseous Suture Repair of the Rotator Cuff without the Use of Anchors. *Clin Orthop Relat Res.* 2013;471:3514–3522.
- Matis N, Hubner C, Aschauer E, Resch H. Arthroscopic transosseous reinsertion of the rotator cuff. *Oper Orthop Traumatol.* 2006;18:1–18.
- Tauber M, Hoffelner T, Penzkofer R, Koller H, Zenner J, Hitzl W, Moroder P, Resch H. Arthroscopic rotator cuff repair: a biomechanical comparison of the suture-bridge technique vs. a new transosseous technique using SutureButtons[®]. *Clinical Biomech* (*Bristol, Avon*). 2011;26:910–916.