Orthopedics and Rheumatology
Open Access Journal
ISSN: 2471-6804

Juniper Publishers
key to the Researchers

Mini Review
Volume 19 issue 3 - January 2022
DOI: 10.19080/OROAJ.2022.19.556018

Ortho & Rheum Open Access J

What's New in Shoulder - Recent Updates

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Submission: December 27, 2021; **Published:** January 11, 2022

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Abstract

Shoulder is a very important joint of upper limb. The common conditions such as rotator cuff injury and instability need to be understood well and treated by the recent evidence-based guidelines. Major conditions seen clinically are rotator cuff tear, arthritis of shoulder joint and instability. These are treated by surgical intervention. So here are the recent evidence-based treatment guidelines.

Introduction

Shoulder joint is a complex anatomical and biomechanical structure where several stabilizers (muscle groups) play role in range of motion. Stability of shoulder is by the glenohumeral articulation, labrum, glenohumeral ligaments, rotator cuff, and deltoid muscle. The deltoid muscle and the rotator cuff are primary dynamic stabilizers which are active during shoulder motion in all axes. Complex combination of static and dynamic stabilizers about the glenohumeral joint balances mobility and functional stability. Nowadays participation in athletics places exceptional demands on the musculoskeletal system. Among these shoulders come in action for the ones who perform overhead activities. Shoulder instability most commonly affects people who are in their late teens to mid-thirties.

Rotator Cuff Repair

In a multicenter study the treatment of rotator cuff tears, comparison between operative and nonoperative treatment with respect to pain and function. The surgical operated group of patients and the nonoperative group were significantly different with respect to SPADI and ASES scores [1] Patients who were on nonoperative treatment had significantly better outcomes in the initial follow-up period compared with patients undergoing a surgical procedure, but this trend reversed in the longer term. Another prospective, randomized observational trial was done to know the efficacy of concomitant suprascapular nerve decompression at the time of rotator cuff repair [2]. In this they studied Shoulder function, MRI, and EMG and nerve conduction studies among 19 patients who were randomized into repair with or without nerve decompression. No clinically relevant differences were seen in these 2 groups. The study was terminated because of safety concerns, with a 33% rate of electrophysiologic complications with no obvious clinical benefits of suprascapular nerve decompression.

Reverse Total Shoulder Arthroplasty

A prospective, randomized study was done to evaluate the utility of tendon transfers at the time of reverse shoulder arthroplasty (RSA) in treating combined loss of elevation and external rotation [3]. Both these groups (16 patients who had latissimus dorsi and teres major tendon transfer and 12 patients who did not) demonstrated significant improvements in the ability to perform ADLs requiring active external rotation postoperatively. No differences in the ADLER, DASH, ASES, and SST results were found between patients treated with RSA alone and those treated with RSA with LD-TM transfer for rotator cuff tear arthropathy and CLEER. They concluded that functional improvement in shoulder was good regardless of a concomitant tendon transfer.

Shoulder Instability

Another multicenter study done on first-time shoulder dislocation, patients were randomized into 2 groups – they were nonoperative management using an external rotation abduction (ER+ABD) brace (60 patients) or arthroscopic Bankart repair (52 patients) [4]. Immobilization in ER+ABD versus primary arthroscopic shoulder stabilization for the treatment showed no differences in clinical shoulder scores. However, the nonoperatively treated group had a significantly higher rate of

instability (19.1%) compared with the operatively treated group (2.3%).

Conclusion

In shoulder, rotator cuff repair is commonly done. Non operative group had beeter outcome initially but in long term it was the operative group. Also, in Reverse total shoulder arthroplasty no difference in outcomes if tendon transfers done also. Recurrent anterior instability of the shoulder is a complex disease which may include both soft tissue and osseous pathologies. Primary clinical approach should be the combination of a careful medical history, a detailed physical examination, and appropriate imaging studies to recognize changes leading to recurrence. Although various surgical techniques have been described, a consensus does not exist and thus, surgeons should select the most effective procedure to restore joint stability in a patient-specific manner.

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DOI: 10.19080/OROAJ.2022.19.556018

How to cite this article: Dr. Nithin Sunku. What's New in Shoulder - Recent Updates. Ortho & Rheum Open Access J. 2022; 19(4): 556018. DOI: 10.19080/OROAJ.2022.19.556018