

ORTHOSPORTS

QUESTION FOR PHYSIOTHERAPISTS



QUESTION | SHOULDER REPLACEMENT IN THE OLDER POPULATION OVER 70's? WHAT ARE THE CRITERIA THESE DAYS FOR SUITABILITY AND A REALISTIC OUTCOME?

ANSWER | Shoulder arthritis is relatively uncommon, mainly because the shoulder is a non weight bearing joint and people can cope with moderate shoulder pain and loss of movement, by activity modification. The main indication for a shoulder arthroplasty is severe pain that is unresponsive to non operative therapy. It should be noted that return of range of motion is uncommon especially in the older patient.

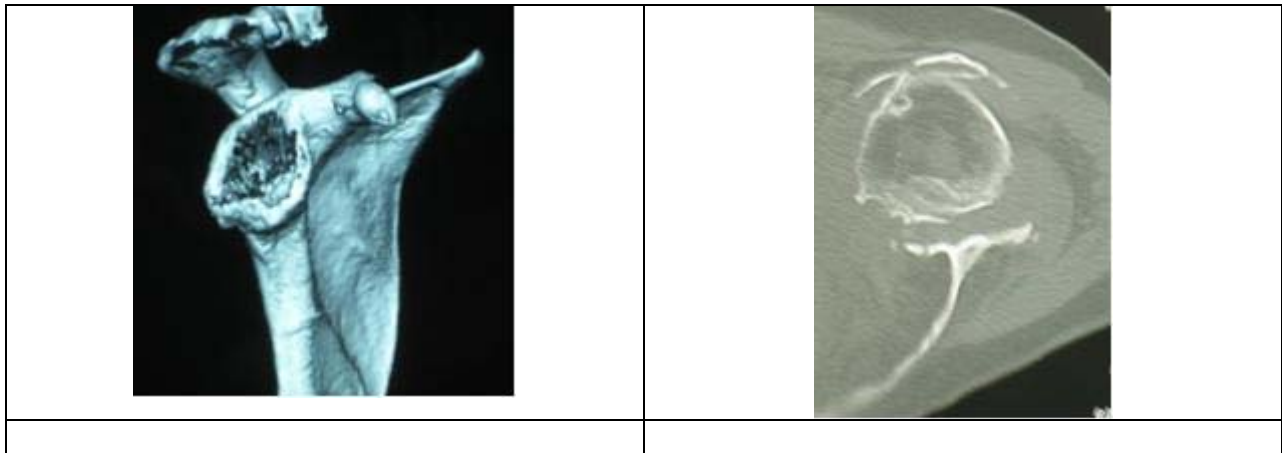
Non operative treatment is always attempted initially in most patients. Anti inflammatory tablets, simple analgesics and activity modification will often settle the pain in older patients who do not have a high demand on the shoulder. Physiotherapy, especially when it involves stretches can aggravate the condition. Intra articular injections of Cortisone can also be helpful when symptoms are not severe. Finally, arthroscopic shoulder debridement can be helpful when the arthritis is not too severe but the results are usually short lived and unpredictable.

The patient will normally advise the physician when the pain is so severe, that they cannot cope with the activities of daily living, and they need a joint replacement. I always get an MRI of the shoulder to assess the Rotator Cuff and also to determine the bony anatomy of the Glenoid in particular. I sometimes get a 3D CT scan if the bony anatomy of the Glenoid is very irregular as it is important to determine the exact version and shape of the Glenoid before surgery.

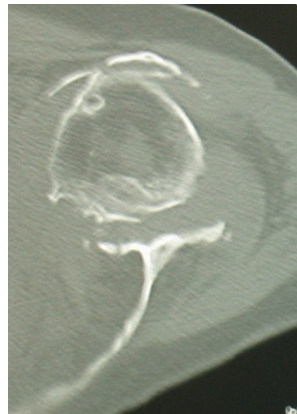
If the bony anatomy is normal and the rotator cuff is intact, then a total shoulder replacement is the operation of choice. Total replacements give far superior results to hemiarthroplasty. A patient can expect excellent pain relief but not a significant improvement in range of motion (120 degrees of forward elevation is considered a good outcome). Because of the limited longevity of the joint (12 to 15 years) and the age related risks of the rotator cuff tearing I recommend against returning to heavy lifting and most sports. The complication rate of this procedure is about 10%. It is important to note that revision of a joint replacement gives generally poor results with only 25% of patients satisfied with the outcome.



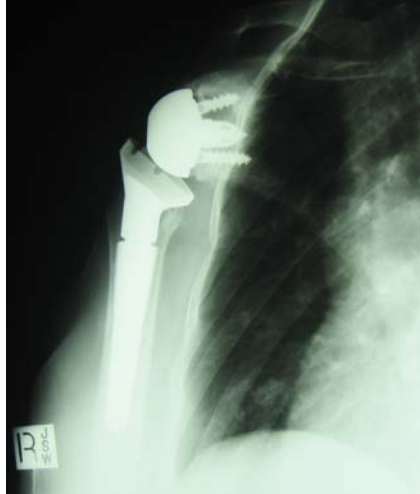
When the patient presents with a glenoid that has a version or size that will not accept a glenoid prosthesis then the choice of treatment is between a total replacement with a glenoid bone graft or a hemiarthroplasty with reshaping of the glenoid to attempt to achieve a more normal shape (known as a “ream and run” procedure). The results of glenoid bone grafting in the older patient with soft bone are fair only. The results of hemiarthroplasty are usually good with reasonable but not full pain relief.



When the patient presents with the rotator cuff then a reverse shoulder arthroplasty is recommended. In this procedure one places the ball on the humerus and the socket on the glenoid to compensate for the torn rotator cuff. This procedure gives excellent pain relief but limited motion (about 90 degrees of forward flexion) and poor power. This procedure should be done with caution because the life expectancy of this prosthesis averages approaches 7 years and the complication rate rarely be done in anyone under the age of 70 years



with arthritis and a large complete tear of the rotator cuff then a reverse shoulder arthroplasty is recommended. In this procedure one places the ball on the humerus to biomechanically compensate for the torn rotator cuff. This procedure gives excellent pain relief but limited range of motion (about 90 degrees of forward flexion) and poor power. This procedure should be done with caution because the life expectancy of this prosthesis averages 7 years and the complication rate is high. It should rarely be done in anyone under the age of 70 years



In summary. Shoulder arthroplasty , whether a hemi, total or reverse, gives good pain relief but does not return range of motion and in some cases power. Patient selection is important and complications are not uncommon. Once performed, the patient needs to modify their lifestyle to give the prosthesis the longest possible life expectancy.

Recommended reading

1. Boileau et al; Arthroplasty of the Shoulder; JBJs 2006 88B 562-575
2. Matsen et al; The Reverse Total Shoulder Arthroplasty; JBJs 2006 88A;3;660-667

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