



ORIGINAL ARTICLE

Total reverse shoulder replacement. Evaluation of the clinical results and complications in a series of 52 cases[☆]



L. Cáceres-Sánchez*, A. Mesa-Mateo, F.J. Barrionuevo-Sánchez, B. García-Benítez, S. Expósito-Triano

Servicio de Cirugía Ortopédica y Traumatología, Hospital San Juan de Dios del Aljarafe, Sevilla, Spain

Received 10 February 2014; accepted 6 February 2015

KEYWORDS

Rotator cuff;
Arthroplasty;
Reverse arthroplasty;
Glenohumeral;
Results;
Complications

Abstract

Objective: To evaluate the clinical results and analyse the complications of total reverse shoulder replacement performed in our centre over an 8 year period.

Material and method: A retrospective study was conducted on 50 patients (52 shoulders), with a mean age of 70.15 years (range 51–84 years) between December 2004 and December 2012, who received a total reverse shoulder replacement, all performed by the same surgeon. The results have been evaluated according to clinical data, radiography study, a satisfaction scale, and the Constant scale, with a minimum follow-up of 16 months. Five of the cases (9.62%) had been intervened due to fractures of the proximal end of the humerus, 6 cases (11.53%) as surgical consequence of a prosthesis revision, 10 cases (19.23%) due to fracture sequelae, and 30 cases (59.62%) were patients with arthropathy due to a massive fracture of the rotator cuff. **Results:** After a mean follow up of 35.78 months (range, 16–82), satisfactory clinical results were obtained in 80% of cases, with a mean preoperative Constant of 27.7 points, and reaching 67.1 points 12 months after the operation. On the visual analogue scale, 8.25 points were obtained before the surgery, which decreased to 2.25 points 12 months later. The complications rate was 15.38%, which were due to an intra-operative fracture (1.92%), deep infection (3.84%), instability (3.84%), and early mechanical loosening (3.84%). Scapular notching was observed in the radiographic study in 9 (17.3%) cases.

[☆] Please cite this article as: Cáceres-Sánchez L, Mesa-Mateo A, Barrionuevo-Sánchez FJ, García-Benítez B, Expósito-Triano S. Artroplastia total invertida de hombro. Evaluación de resultados clínicos y complicaciones tras una serie de 52 casos. Rev Esp Cir Ortop Traumatol. 2015;59:439–446.

* Corresponding author.

E-mail address: libertad.caceres@hotmail.com (L. Cáceres-Sánchez).

PALABRAS CLAVE

Manguito rotador;
 Artroplastia;
 Artroplastia
 invertida;
 Glenohumeral;
 Resultados;
 Complicaciones

Discussion and conclusions: After the results obtained, it could be said that total reverse shoulder replacement achieved encouraging results in the short term for the treatment of glenohumeral arthrosis and massive tears of the rotatory cuff. On analysing our series, it can be seen that the complications rate is much higher when it is used to treat fracture sequelae in which there is a loss of proximal humerus bone stock.

© 2015 SECOT. Published by Elsevier España, S.L.U. All rights reserved.

Artroplastia total invertida de hombro. Evaluación de resultados clínicos y complicaciones tras una serie de 52 casos

Resumen

Objetivo: Evaluar los resultados clínicos y analizar las complicaciones de las prótesis totales invertidas de hombro realizadas en nuestro centro en un periodo de 8 años.

Material y método: Se ha realizado un estudio retrospectivo sobre 50 pacientes (52 hombros), con edad promedio de 70,15 años en un rango de 51 a 84 años entre diciembre del 2004 y diciembre del 2012, a los que se les ha implantado una prótesis total invertida de hombro, todos intervenidos por el mismo cirujano. Se han evaluado los resultados según la clínica, el estudio radiográfico, la encuesta de satisfacción y la escala de Constant con un seguimiento mínimo de 16 meses. Cinco de los casos (9,62%) se han intervenido por fracturas de la extremidad proximal de húmero, 6 casos (11,53%) como consecuencia de cirugías de revisión protésica, 10 casos (19,23%) por secuelas de fracturas y 31 casos (59,62%) corresponden a pacientes con artropatía por rotura masiva del manguito rotador.

Resultados: Tras un seguimiento medio de 35,78 meses (rango 16–82), en los que se han obtenido resultados clínicos satisfactorios en más del 80% de los casos con un Constant preoperatorio promedio de 22,7 puntos y alcanzando los 67,1 puntos a los 12 meses de la intervención. En la escala visual analógica se han obtenido 8,25 puntos en el preoperatorio hasta disminuir a los 2,25 puntos transcurridos 12 meses. La tasa de complicaciones es del 15,38%. Estas corresponden a: fractura intraoperatoria (1,92%), fractura de acromion (1,92%), infección profunda (3,84%), inestabilidad (3,84%) y aflojamiento mecánico precoz (3,84%). En el análisis del estudio radiográfico, se observa notching escapular en 9 casos (17,3%).

Discusión y conclusiones: Tras los resultados obtenidos, podemos decir que la prótesis total invertida de hombro consigue resultados alentadores a corto plazo para el tratamiento de la artrosis glenohumeral y los desgarros masivos del manguito rotador. Al analizar nuestras series, comprobamos cómo la tasa de complicaciones es mucho más elevada cuando se usa para tratar secuelas de fracturas en las que tenemos una pérdida del stock óseo del húmero proximal.

© 2015 SECOT. Publicado por Elsevier España, S.L.U. Todos los derechos reservados.

Introduction

Shoulders with a deficient rotator cuff present severe biomechanical alterations, causing components of arthroplasties with a conventional design to suffer early complications. These complications are mainly due to a continuous change in the centre of rotation of the joint and eccentric loads on the glenoid component, leading to a loosening thereof.^{1,2} Due to these two reasons, hemiarthroplasty and bipolar prosthesis techniques have several limitations, both in terms of function and pain relief. The total reverse shoulder replacement (TRSR) technique, in which the humerus is transformed into a concavity and the glenoid into a sphere, solves both problems and provides a stable fulcrum for the glenohumeral joint.^{3,4}

TRSR was approved by the FDA in 2004 and has since proven to be a very effective prosthesis for the treatment

of rotator cuff tear arthropathy and other conditions requiring a shoulder arthroplasty due to rotator cuff deficiency.⁵ However, in other published series, the rate of revision of TRSR was nearly 10%, with instability and infection being the most common causes.^{6,7} Other studies have shown that aseptic loosening may contribute up to 7% of total complications.⁷ Since the indications are increasing and the follow-up period is becoming longer, the incidence of aseptic loosening is also likely to increase. Moreover, Guery et al.⁸ have proven that pain increases in long-term follow-up of temporary replacements (5–10 years). Therefore, in the future, surgeons will be facing difficult decisions when reviewing reverse prostheses, and there is no established optimal management for TRSR complications.

The purpose of our study is to evaluate the results obtained after placement of a TRSR in our centre, in order

Download English Version:

<https://daneshyari.com/en/article/4087096>

Download Persian Version:

<https://daneshyari.com/article/4087096>

[Daneshyari.com](https://daneshyari.com)