



ORIGINAL ARTICLE

Scapula insufficiency fractures after reverse total shoulder arthroplasty in rotator cuff arthropathy: What is their functional impact? ☆



Yaiza Lópiz*, Alberto Rodríguez-González, Carlos García-Fernández, Fernando Marco

Unidad de Hombro y Codo, Departamento de Cirugía Ortopédica y Traumatología, Hospital Clínico San Carlos, Madrid, Spain

Received 28 October 2014; accepted 25 January 2015

KEYWORDS

Insufficiency fracture;
Reverse shoulder arthroplasty;
Acromial fractures;
Acromial base fractures;
Scapular fracture

Abstract

Introduction-objectives: To describe the incidence, etiological factors, functional impairment and therapeutic management of scapular fractures after reverse shoulder arthroplasty (RSA) in rotator cuff arthropathy.

Material and method: A retrospective study was conducted on 126 RSA between 2009 and 2011, in which four fractures were identified that were compared with a control group of 40 patients. An analysis was performed on the variables related to the surgical technique, functional results, and quality of life (Constant scale, EQ-5D).

Results: The fracture incidence was 3.28% with a mean age of 74.7 years. The mean time until diagnosis was 11.9 months.

The preoperative Constant score in the control group was 37.3%, and 34.7% in the fracture group ($P > .05$); postoperative Constant score: 81.2 and 66.5%, respectively ($P > .001$). Forward elevation and abduction in fracture patients decreased by 39° ($P = .02$), and 34° ($P = .057$) respectively. The perceived quality of life (EQ-VAS) was lower in the fracture group (60 vs. 76) ($P = .002$).

There were no instability cases, and no revision surgery was required. The union rate was 50% after a mean follow-up 39.6 months.

Conclusions: Scapular fracture after RSA is a rare complication. Despite its presence, the functional outcomes and quality of life of these patients are higher than preoperatively; however,

☆ Please cite this article as: Lópiz Y, Rodríguez-González A, García-Fernández C, Marco F. Fracturas de estrés de la escápula tras artroplastia invertida en artropatía de manguito: ¿cuál es su repercusión funcional?. Rev Esp Cir Ortop Traumatol. 2015;59:318–325.

* Corresponding author.

E-mail address: yaizalopez@gmail.com (Y. Lópiz).

PALABRAS CLAVE

Fracturas por insuficiencia;
 Artroplastia invertida;
 Fracturas de acromion;
 Fracturas de la base del acromion;
 Fracturas de escápula

they are lower than that obtained in patients with RSA without this complication. More prospective studies are needed to define guidelines for therapeutic action against this complication.
 © 2014 SECOT. Published by Elsevier España, S.L.U. All rights reserved.

Fracturas de estrés de la escápula tras artroplastia invertida en artropatía de manguito: ¿cuál es su repercusión funcional?

Resumen

Introducción-objetivos: Describir la incidencia, factores etiológicos, repercusión funcional y actitud terapéutica de las fracturas de acromion y espina de la escápula tras artroplastia invertida por artropatía de manguito rotador.

Material y método: Análisis retrospectivo de 126 artroplastias inversas entre los años 2009–2011. Se identificaron 4 fracturas que se compararon con un grupo control de 40 pacientes. Se analizan variables relacionadas con el proceso quirúrgico, funcionales y de calidad de vida (escala Constant, EQ-5D).

Resultados: La incidencia de la fractura fue 3,28% (4 pacientes), edad media 74,7 años y tiempo medio hasta el diagnóstico 11,9 meses.

El Constant preoperatorio del grupo control fue de 37,3% y de los pacientes con fractura 34,7% ($p > 0,05$); el postoperatorio 81,2% y 66,5%, respectivamente ($p < 0,001$). La anteversión y abducción en los pacientes con fractura descendieron en 39° ($p = 0,02$) y 34° ($p = 0,057$) respectivamente con respecto al grupo control. La calidad de vida percibida (EQ-VAS) es inferior en el grupo de fractura (60 vs 76) ($p = 0,002$).

En ninguno de los casos de fractura se observó inestabilidad, no precisando cirugías de revisión. La tasa de consolidación fue de un 50% tras un seguimiento medio de 39,6 meses.

Conclusiones: La fractura de escápula tras artroplastia invertida es una complicación poco frecuente. A pesar de su aparición los resultados funcionales y de calidad de vida de estos pacientes son superiores a los presentes preoperatoriamente, sin embargo, resultan inferiores a los de los pacientes intervenidos en los que no se encuentra dicha complicación. Son necesarios más estudios prospectivos que nos ayuden a definir las pautas de actuación terapéutica ante esta complicación.

© 2014 SECOT. Publicado por Elsevier España, S.L.U. Todos los derechos reservados.

Introduction

Scapular stress fractures after reverse prosthesis implantation are a relatively rare complication, with its incidence ranging between 0.8% and 7.2% in the different series.^{1–14} However, an increase in these fractures is to be expected with the growing use of this type of arthroplasty and the ever-expanding knowledge of its existence that surgeons that perform this implantation have. These facts lead to clinical suspicion even when the diagnosis is often not so apparent with simple radiography. Its aetiology and treatment have not been completely clarified. Various studies reveal that the functional result remains unchanged after its occurrence, while others disagree as to surgical treatment vs. conservative.^{5,8}

The objective of this study was to determine the incidence, aetiological factors, functional repercussion and therapeutic technique of acromial fractures found in a series of reverse arthroplasties implanted using rotator cuff arthropathy.

Material and method

This was a retrospective analysis of a series of 126 reverse arthroplasties consecutively implanted using rotator cuff arthropathy between 2009 and 2011 in our centre. We excluded four cases from the study due to loss during follow-up.

Criteria for inclusion were all the patients in which a reverse arthroplasty had been performed in rotator cuff arthroplasty and that presented a fracture of the anterior acromial process or of the scapular spine, with a minimum follow-up of 2 years from its onset.

The presence of fracture of the acromion was established using simple radiography and computed axial tomography CAT scan following clinical suspicion (sudden pain in the posterior face of the shoulder and/or poor progress in joint mobility improvement). A total of 4 fractures (3 fractures of the acromial process and 1 of the acromial base) were identified in 4 patients. In all the cases conservative treatment was initially given, consisting of sling immobilisation for 6 weeks (allowing

Download English Version:

<https://daneshyari.com/en/article/4087117>

Download Persian Version:

<https://daneshyari.com/article/4087117>

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