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ORIGINAL ARTICLE

Clinical factors that affect perceived quality of life in arthroscopic reconstruction for acromioclavicular joint dislocation☆

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KEYWORDS
Dislocation;
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Abstract
Objective: To analyse the results of arthroscopic repair of acromioclavicular dislocation in terms of health-related quality of life.
Material and method: Prospective study of patients with acromioclavicular dislocation Rockwood grade III–V, treated arthroscopically with a mean follow up of 25.4 months. The demographics of the series were recorded and evaluations were performed preoperatively, at 3 months and 2 years with validated questionnaires as Short Form-36 Health Survey (SF-36), visual analogue scale (VAS), The Disabilities of the Arm, Shoulder and Hand (DASH), Constant–Murley Shoulder Outcome Score (Constant) and Walch–Duplay Score (WD).
Results: Twenty patients, 17 men and 3 women with a mean age of 36.1 years, were analysed. According to the classification of Rockwood, 3 patients were grade III, 3 grade IV and 14 grade V. Functional and clinical improvement was detected in all clinical tests (SF-36, VAS and DASH) at 3 months and 2 years follow up ($P < .001$). The final Constant score was 95.3 ± 2.4 and the WD was $1.8 \pm .62$. It was not found that the health-related quality of life was affected by any variable studied except the evolution of DASH.

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Conclusions: The health-related quality of life (assessed by SF-36) in patients undergoing arthroscopic repair of acromioclavicular joint dislocation grades III–V was not influenced by gender, age, grade, displacement, handedness, evolution of the VAS, scoring of the Constant or by the WD. However, it is correlated with the evolution in the DASH score.

PALABRAS CLAVE
Luxación;
Acromioclavicular;
Calidad de vida;
Factores clínicos;
Artroscopia

Factores clínicos que afectan a la calidad de vida percibida en la reconstrucción artroscópica de las luxaciones acromioclaviculares

Resumen
Objetivo: Analizar los resultados de la reparación artroscópica de la luxación acromioclavicular en términos de calidad de vida percibida.
Material y método: Estudio prospectivo de pacientes con luxación acromioclavicular grados III-Vde Rockwood, tratados artroscópicamente con un seguimiento medio de 25,4 meses. Se registraron los datos demográficos de la serie y se realizaron evaluaciones antes de la cirugía, a los 3 meses y a los 2 años con los cuestionarios validados *Short Form-36 Health Survey* (SF-36), escala visual analógica (EVA), *The Disabilities of the Arm, Shoulder and Hand* (DASH), *Constant–Murley Shoulder Outcome Score* (Constant) y *Walch–Duplay Score* (WD).
Resultados: Se analizaron 20 pacientes, 17 hombres y 3 mujeres, con una edad media de 36,1 años. Según la clasificación de Rockwood, 3 pacientes fueron grado III, 3 grado IV y 14 grado V. Se objetivó mejoría tanto funcional como clínica en todos los test clínicos analizados (SF-36, EVA y DASH) tanto a los 3 meses como a los 2 años ($p < 0{,}001$). El valour final del test de Constant fue de $95{,}3 \pm 2{,}4$ y el WD medio fue de $1{,}8 \pm 0{,}62$. No se encontró que la calidad de vida percibida se viera afectada por ninguna variable a estudio, excepto por la evolución del DASH.
Conclusiones: La calidad de vida percibida (valorada mediante el SF-36) en pacientes intervenidos artroscópicamente de luxación acromioclavicular grados III-V no se ve influida por el sexo, la edad, el grado, el desplazamiento, la lateralidad, la evolución de la EVA, la puntuación del Constant ni por el WD. Sí se correlaciona con la evolución en el DASH.

Introduction

Acromioclavicular joint dislocations (AC), which are classified by Rockwood[1] in degrees I to VI, are a challenge for orthopaedic surgeons as they are difficult to treat and there is no consensus on which one of the many techniques described should be used.[2] This lack of agreements centres especially on degrees III–V.

Arthroscopic procedures that use coracoclavicular suspension devices (CC) placed isometrically or anatomically make it possible to reduce AC dislocations during the scarring of the CC ligaments.[3–6] The anatomical technique places 2 CC suspension devices, emulating the trajectory of the conoid and trapezoid ligaments, while the isometric technique places a single device centrally, between the conoid and trapezoid ligaments.[3–6] These procedures make it possible to reduce AC dislocations during the hypothetical scarring of the CC ligaments.

Injuries to the AC joint are important for perceived quality of life (PQL) for the patient. These dislocations represent approximately 10% of injuries to young active patients.[1] The clinical results described to date (using arthroscopic techniques) describe a favourable clinical and functional recovery, although there is up to 40% residual displacement which may or may not affect the subsequent clinical symptoms of the patient.[7]

There are many functional measurement instruments for evaluation following AC dislocations. In spite of this, such instruments do not seem able to determine overall quality of life. The Short Form-36 Health Survey (SF-36)[8] is the most widely accepted means of detecting the overall quality of life of patients[8–10] on a scale of from 0 to 100 (where 100 is the maximum score). The fact that this questionnaire asks more questions about the lower limbs than it does the upper ones must be taken into account.

Other scales, such as the visual analogue scale (VAS), make it possible to rank the pain perceived by a patient from 0 to 10.[11] When the aim is to analyse shoulder working tools such as The Disabilities of the Arm, Shoulder and Hand (DASH) are usually selected. This offers information on symptoms, as well as the capacity for performing certain activities with the arm.[12] The Constant–Murley Shoulder Outcome Score (Constant) is also used. This includes a pain score, functional evaluation, amplitude of movement and strength measurements.[13] Lastly, the Walch–Duplay Score (WD) analyses stability, pain, sports recovery and mobility.[14]