

ORIGINAL ARTICLE

Chronic ankle instability: Arthroscopic anatomical repair[☆]



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KEYWORDS

Ankle instability;
Ankle sprain;
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Abstract

Introduction: Ankle sprains are one of the most common injuries. Despite appropriate conservative treatment, approximately 20–40% of patients continue to have chronic ankle instability and pain. In 75–80% of cases there is an isolated rupture of the anterior talofibular ligament. **Material and method:** A retrospective observational study was conducted on 21 patients surgically treated for chronic ankle instability by means of an arthroscopic anatomical repair, between May 2012 and January 2013.

There were 15 men and 6 women, with a mean age of 30.43 years (range 18–48). The mean follow-up was 29 months (range 25–33). All patients were treated by arthroscopic anatomical repair of anterior talofibular ligament.

Four (19%) patients were found to have varus hindfoot deformity. Associated injuries were present in 13 (62%) patients. There were 6 cases of osteochondral lesions, 3 cases of posterior ankle impingement syndrome, and 6 cases of peroneal pathology. All these injuries were surgically treated in the same surgical time.

Results: A clinical-functional study was performed using the American Orthopaedic Foot and Ankle Society (AOFAS) score. The mean score before surgery was 66.12 (range 60–71), and after surgery it increased up to a mean of 96.95 (range 90–100). All patients were able to return to their previous sport activity within a mean of 21.5 weeks (range 17–28). Complications were found in 3 (14%) patients.

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PALABRAS CLAVE

Inestabilidad de tobillo;
Esguince de tobillo;
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Conclusions: Arthroscopic anatomical ligament repair technique has excellent clinical-functional results with a low percentage of complications, and enables patients to return to their previous sport activity within a short period of time.

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Inestabilidad crónica de tobillo: reparación anatómica artroscópica**Resumen**

Introducción: Los esguinces de tobillo son una de las patologías traumatológicas más frecuentes. A pesar de un tratamiento conservador adecuado, este fracasa en el 20-40% de los casos. Estos pacientes suelen desarrollar una inestabilidad crónica de tobillo. En el 75-80% de las ocasiones existe una rotura aislada del ligamento talofibular anterior.

Material y método: Estudio retrospectivo observacional de 21 pacientes intervenidos quirúrgicamente mediante técnica de reparación anatómica artroscópica, por inestabilidad lateral crónica de tobillo, entre mayo de 2012 y enero de 2013. Se realizó un seguimiento medio de 29 meses (rango de 25-33). La distribución por sexos fue de 15 hombres y 6 mujeres; la edad media fue de 30,43 años (rango de 18-48).

En 4 pacientes (19%), se diagnosticó una deformidad en varo del retropié asociada. En 15 pacientes (71,4%), se diagnosticaron lesiones intraarticulares: 6 pacientes presentaron lesiones osteocondrales (LOC) talares, 3 presentaban un pinzamiento posterior de tobillo y 6 pacientes presentaban distintas patologías de los tendones peroneos. Todas estas lesiones fueron abordadas quirúrgicamente en el mismo acto quirúrgico.

Resultados: Se llevó a cabo una revisión clínico-funcional, utilizando la escala *American Orthopaedic Foot and Ankle Society (AOFAS)*. La media preoperatoria fue de 66,12 puntos (rango de 60-71) y la postoperatoria se incrementó hasta una media de 96,95 puntos (rango de 90-100). Todos los pacientes pudieron retomar sus actividades deportivas previas en una media de 21,5 semanas (rango de 17-28). Encontramos complicaciones en 3 pacientes (14%).

Conclusiones: La reparación anatómica del ligamento talofibular anterior mediante esta técnica presenta unos resultados clínico-funcionales excelentes, con una temprana reincorporación del paciente a sus actividades deportivas y un bajo índice de reintervenciones y complicaciones.

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Introduction

Sprained ankles are one of the most frequent musculo-skeletal pathologies, constituting more than 10% of daily traumatological emergencies.¹ The most common mechanism of lesion is ankle inversion with the foot in plantar flexion. In this position, the anterior talofibular ligament (ATFL) acts as the main stabiliser of the ankle. This ligament is the weakest in the lateral ligament complex.² The initial treatment in the great majority of ankle sprains is conservative, with a high percentage of good results. This treatment should include a complete programme of rehabilitation, with proper proprioception exercises. In spite of this conservative treatment, there have been reports of failure in between 20% and 40% of the cases, which end up developing chronic ankle instability.^{3,4}

Chronic lateral ankle instability can be linked to multiple pathologies, both intra-articular and extra-articular, as well as varus misalignment of the hindfoot.⁴⁻⁶ When conservative treatment of chronic ankle instability fails, surgical

treatment is indicated. Numerous surgical techniques to approach this pathology have been described, with direct anatomical repair being the "gold standard". This technique of open surgery was described by Broström in 1966⁷; after that, modifications of this technique and techniques arthroscopic anatomical repair have been described.^{8,9} However, the success of such repair depends on the quality of the residual tissue. In patients with long-term ankle instability, with poor quality residual tissue, obesity or severe deformities associated, anatomical reconstruction with plasties might be indicated.^{10,11}

Several techniques for arthroscopic repair of the ATFL, without associated percutaneous manoeuvres (all-inside), have recently been described. These techniques allow treating both the instability and the associated intra-articular lesions in the same operation.^{2,12-14}

The objectives of this study were to assess the preliminary results of all-inside arthroscopic anatomical repair of the ATFL and to analyse the intra-articular lesions associated.

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