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Original Research Article

Traumatic Dislocation of the Fibular Tendons in Footballers: A Series of 11 Cases

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Abstract

This is a retrospective study of 11 cases of traumatic dislocation of the fibular tendons in footballers, collected from the archives of the Department of Orthopedic Trauma Surgery at Avicenne Hospital, University Hospital Center of Rabat, from 2016 to 2025. The aim of this work is to study the epidemiological, clinical, paraclinical, and surgical characteristics of this entity. Dislocation of the fibular tendons is a rare lesion, accounting for less than one percent of ankle injuries. The mean age of our patients was 25.8 years. All patients were male (100%). The impairment was exclusively unilateral (100%), with no preferential side. The etiologies were dominated by sports activity. A total of 85.7% of cases had a prior medical history, predominantly ankle sprains. Imaging confirmed the diagnosis and allowed classification according to Davis and Eckert. All patients underwent surgical treatment based on the creation of a fibro-periosteal flap, supplemented by systematic immobilization for 6 weeks in a resin boot. At a mean follow-up of 5 years, ligament stabilization was achieved in the entire study population within 6 to 8 weeks, with resumption of sports activity at 3 months.

Keywords: Dislocation, fibular tendons, traumatic, football.

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INTRODUCTION

Dislocation of the fibular tendons is defined as a displacement of the fibular tendon with injury to the tendon sheath or retinaculum, resulting in passage of the tendons anterior to the lateral malleolus. It is a rare condition affecting young adults, most commonly occurring in the context of sports activity, and accounts for less than one percent of ankle injuries [1]. This traumatic lesion is frequently underdiagnosed in the acute phase and confused with a lateral ankle ligament injury. Despite its first description in 1803 by Monteggia [2], fibular tendon dislocation remains poorly recognized; however, interest in its diagnosis has been renewed with advances in imaging, particularly dynamic imaging such as ultrasound and dynamic MRI. Today, in the world of football, economic competition is as fierce as the sporting competition between professional football clubs. Sports medicine is thus flourishing in the context of performance optimization and sporting cohesion. Indeed, in 2015, across the four major professional football leagues, the mean annual cost of player injuries was estimated at $12.4 million per team [3]. Given the importance of rapid diagnosis in the management of high-level athletes, this condition should be considered in any ankle injury occurring in a footballer.

MATERIALS AND METHODS

This is a retrospective study comprising a series of 11 patients who underwent surgical management for traumatic dislocation of the fibular tendons in the Department of Orthopedic Trauma Surgery at Avicenne Hospital in Rabat, between January 2016 and December 2025. All patients in the series were male. The most commonly affected age group was between 25 and 30 years. The analysis revealed no preferential side for traumatic fibular tendon dislocation: there were 6 cases of right fibular tendon involvement (57%) versus 5 cases of left fibular tendon involvement (43%).

In 71.4% of cases, patients described a mechanism of direct trauma caused by an opposing player striking the lateral aspect of the ankle. In 28.6% of cases, a well-identified injury mechanism was identified on history: forced dorsal flexion of the foot combined with eversion to catch oneself during a fall.

Pain was the main functional complaint in all patients, accompanied by functional impairment of the ankle. Hematoma with retromalleolar ecchymosis was observed in patients admitted during the acute phase; in the chronic stage, the predominant findings were ankle instability, painful snapping, and valgus giving way.

Preoperative clinical examination included the Sobel test, which involves resisted eversion combined with retromalleolar pressure. In the chronic form, seen in 7 cases of our series, it was able to reproduce the dislocation. In the acute form, seen in 4 cases, palpation was rendered difficult by pain, and resisted contraction of the fibular tendons exacerbated pain but did not reproduce the dislocation.

All patients underwent conventional anteroposterior and lateral ankle radiographs to look for the "Fleck Sign," which appears as a cortical bone flake avulsed from the lateral malleolus. This pathognomonic sign was identified in only one case in our series (Figure 1).

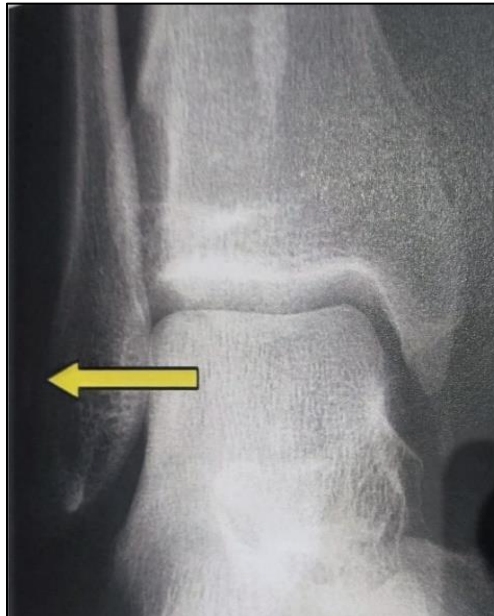

Figure 1: Anteroposterior radiograph of the left ankle showing the presence of the Fleck Sign

Dynamic ultrasound examination was performed only in chronic-phase patients and revealed dislocation associated with tendon fissuring in 5 cases (Figure 2) and synovitis in 2 cases. MRI was performed for the entire series, providing superior soft tissue analysis with confirmation of dislocation in 5 cases and subluxation in 2 cases (Figure 3).

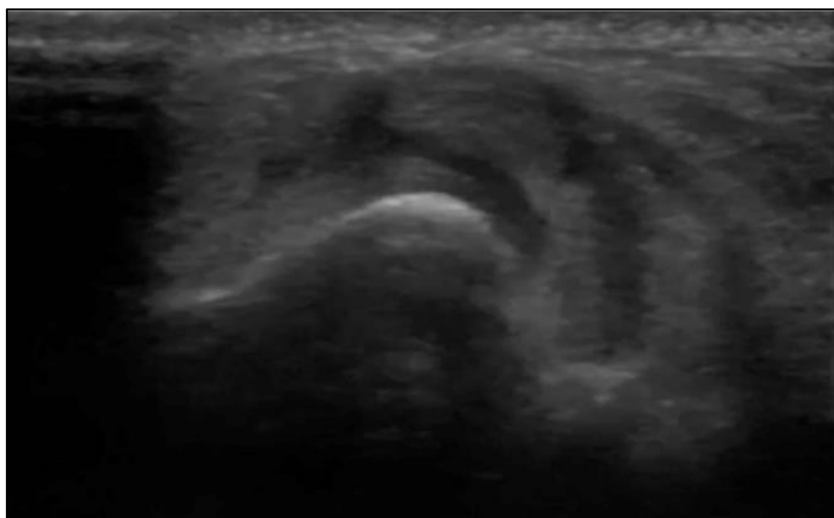

Figure 2: Ultrasound image demonstrating fibular tendon dislocation

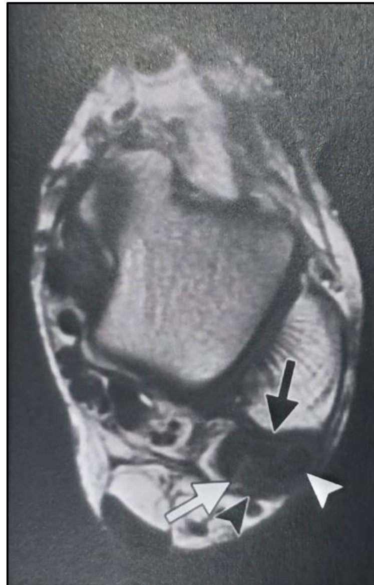

Figure 3: Magnetic resonance imaging showing fibular tendon dislocation

The surgical technique was based on opening the tendon sheath (Figure 4) and creating 4 transosseous tunnels spaced approximately 1 centimeter apart (Figure 5), followed by transosseous reinsertion of the posterior sheath flap using three U-sutures, enabling retromalleolar invagination of the flap and closure of the fibular groove. The anterior sheath flap was then sutured in an overcoat fashion over the posterior sheath, achieving automatic closure of the dissection (Figure 6). In the 3 cases with tendon fissuring, an elliptical excision of the pathological tendon segment was performed followed by end-to-end suture with absorbable thread. All patients were immobilized in a resin boot with the ankle at 90 degrees for 6 weeks to promote optimal healing and limit postoperative complications.

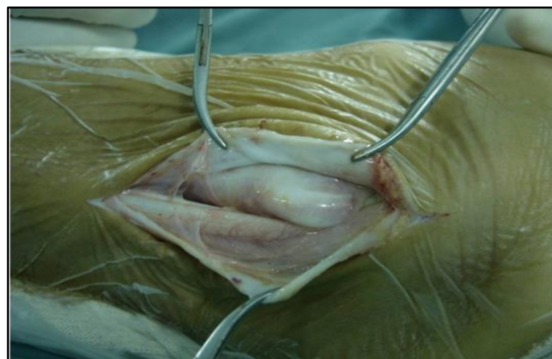

Figure 4: Operative view: Sheath elevation — the dislocation chamber

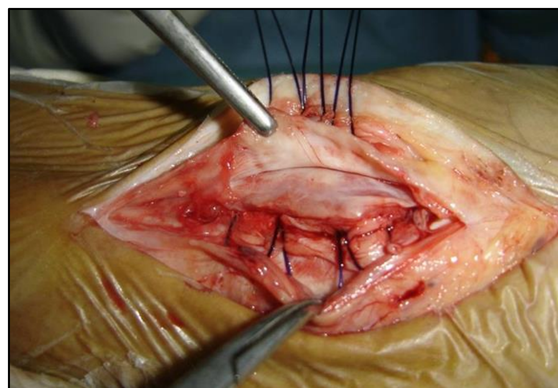

Figure 5: Operative view: Transosseous U-sutures with the anterior flap raised

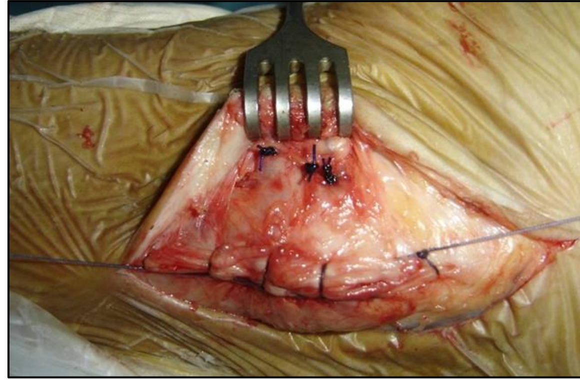

Figure 6: Operative view: Transosseous U-sutures with the anterior flap folded back into place

Ten patients in our series underwent rehabilitation adapted to high-level football practice over 8 weeks. One patient underwent unmonitored rehabilitation.

RESULTS

We opted for purely clinical follow-up with a minimum follow-up of 5 years after surgery. None of the patients reported any further retromalleolar pain. They had regained full ankle mobility without instability. Of the 11 patients practicing competitive football, 10 (85.7%) returned to sport at the same level of competition as before the injury. One patient (14.3%) ended their career for reasons unrelated to the traumatic dislocation of the fibular tendons. Subjective outcomes, as measured by the AOFAS score, showed that all patients were very satisfied with the operation (Table 1).

Table 1: Summary table of post-operative AOFAS scores in our series

Numéro du patient	SCORE AOFAS POST-OPERATOIRE
1	96
2	100
3	98
4	92
5	100
6	100
7	94

DISCUSSION

The first description of fibular tendon dislocation is attributed to Monteggia in 1803, in a ballet dancer [4]. Although numerous publications have been dedicated to this condition, fibular tendon dislocation remains too rarely diagnosed in the acute phase. Recurrent dislocations threaten tendon integrity, and surgery is the only solution to stabilize and preserve the tendons. This lesion particularly affects young adults engaged in sports activity, typically in the second and third decades of life, with a male predominance [5]. The mechanism almost always involves a violent reflex contraction of the fibular muscles combined with dorsiflexion-eversion of the foot. The resulting force presses the tendons against the posterior surface of the fibula, tears the superior retinaculum, and expels the tendons from the damaged tunnel [6]. The primary lesion originates from rupture of the superior retinaculum itself or its attachments [7]. The most widely used classification is that of Eckert and Davis, proposed in 1976, which comprises three types [8]:

- Type I: The retinaculum is detached from the lateral malleolus but remains continuous with the periosteum, creating a dissection pocket analogous to the Bankart lesion of the shoulder (61%).
- Type II: Both the retinaculum and the cartilaginous rim are detached together from the bony edge (33%).
- Type III: The retinaculum and cartilaginous rim carry their malleolar bony insertion, detaching a bony fragment clearly visible on radiographs, unequivocally confirming the dislocation (16%).

In 1985, Oden added a Type IV: tearing of the retinaculum in its posterior portion.

The chronic form is the most commonly encountered presentation, characterized by hindfoot instability or a painful retromalleolar snapping sensation. The examiner can reproduce the dislocation through resisted eversion maneuvers combined with retromalleolar pressure, which amplifies the tendon instability (Sobel test).

Plain radiography and ultrasound remain the two most useful investigations, supplemented by MRI and, to a lesser extent, CT scan and tenosopy. Standard ankle radiographs look for the sole pathognomonic sign of fibular tendon dislocation: a posterior cortical fragment avulsed from the lateral malleolus in a "fingernail" pattern, corresponding to Eckert and Davis Stage 3. Ultrasound assesses tendon position, verifies the absence of tendon twisting, and rules out fissuring or rupture. MRI provides excellent soft tissue analysis, including myological abnormalities of the peroneus quartus, tendon fissure lesions, supernumerary tendons, and frequently associated ligamentous injuries [9].

Surgery is, in our view, the treatment of choice regardless of the duration of evolution (acute or chronic). Numerous surgical techniques have been described, and they sometimes complement one another in their objectives (10). Three categories of treatment have been described:

- Repair of the sheath and retinaculum using soft tissue plasty.
- Modification of the bony environment (these more invasive techniques aim to increase the depth of the retrofibular groove).
- Transposition of the fibular tendons.

CONCLUSION

Dislocation of the fibular tendons remains a condition that is poorly recognized in the acute phase in athletic patients. Still too easily confused with the classic ankle sprain, the diagnosis should be considered from the outset of the clinical history by carefully identifying the injury mechanism. Left untreated, this condition impairs football practice and may be responsible for a prolonged, debilitating absence due to the accompanying pain and chronic tendinopathy that characterize it.

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Consent for Publication: Consent was obtained from the patient for publication of this case report and accompanying images.

Competing Interests: The authors declare that they have no competing interests.

REFERENCES

1. Butler BW, Lanthier J, Wertheimer SJ. Subluxing peroneals: a review of the literature and case report. J Foot Ankle Surg 1993; 32:134–9.
2. Monteggia G. Instituzini Chirurgiche. 1803 part 3.
3. Dr. Abotel. K, economiematin.fr, News-sport-medecine-cout-blessures sante
4. Monteggia GB. In: Instituzini Chirurgiche. Italy: Milan; 1803. p. 336-41.
5. Arrowsmith SR, Fleming LL, Allman FL. Traumatic dislocation of the peroneal tendon. Am J Sports 1983 ;11 :142-6.
6. Stover CN, Bryan DR. Traumatic dislocation of the peroneal tendon. Am J Surg 1962 ;103 :180-6.
7. Oden RR. Tendon injuries about the ankle resulting from skiing. Clin Orthop Relat Res 1987 ;216 :63-9.
8. Eckert WR, Davis EA. Acute rupture of the peroneal retinaculum. J Bone Joint Surg Am 1976 ;58 :670-3.
9. Rosenberg ZS, Feldman F, Singson RD. Peroneal tendons injuries: CT analysis. Radiology 1986 ; 161 :743-8.
10. Luxations des tendons fibulaires ; A. Meyer, F. Khiami et É. Rolland ; Appareil locomoteur, 2008-01-01, Volume 22, Numéro 4, Pages 1-8.
11. Roth JA, Taylor WC, Whalen J. Peroneal tendon subluxation: the other lateral ankle injury. British journal of sports medicine. 2010 Nov 1;44(14):1047-53.

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