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Case Report

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CLOSED MEDIAL SUBTALAR DISLOCATION: A CASE REPORT AND REVIEW OF THE LITTERATURE

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ABSTRACT

Pure subtalar dislocation is a rare condition. We here report the case of a 35 old patient presenting with a closed internal subtalar dislocation after a sport injury. He underwent orthopedic therapy with manuel therapy, achieving great functional result.

KEYWORDS: Internal subtalar dislocation, orthopedic therapy.

INTRODUCTION

Pure subtalar dislocation is a rare dislocation, accounting for only about 1% of all dislocations seen in orthopaedic trauma. It is defined by a loss of total contact between the talus and the rest of the foot, which moves below the talus.

It follows a high energy trauma most often due to a sports injury, accident on the public road, or a fall from height.

We are reporting the case of a 35-year-old young man taken care of in our hospital.

CASE REPORT

A 35-year-old male subject with no notable pathological history, was admitted to the emergency department of the ibn sina university hospital in rabat for a trauma to the right ankle following a sports accident (inversion and equinism of the foot) causing pain and total functional impotence of the limb.

The clinical study objected a characteristic deformation of the mid-tarsal region, with ankle edema, without skin lesion. The vasculo-nervous examination was unremarkable.

Standard radiographs made it possible to establish the diagnosis of a pure medial subtalar dislocation with no associated fracture. (Figure 1). The patient was taken immediately to the operating room where a reduction was performed under general anesthesia by the boot-pulling maneuver, the ankle was stable during testing and a control X-ray had shown good joint congruence (Fig.2-3)

The ankle was immobilized in a plaster boot for 6 weeks followed by progressive rehabilitation. The functional result at 6 months was excellent.

Figure 1: Radiological appearance of pure internal subtalar dislocation.

Figure 2-3: x rays after reduction.

DISCUSSION

There are four types of subtalar dislocations, classified in the literature according to the postion of the foot to the astragal.[1]

Internal subtalar dislocation is the most common variant of these dislocations(70–80%), followed by lateral dislocation (20%) and finally the anterior and posterior dislocation(1% each).[2] they mainly occur in males during high energy equin foot-inversion trauma.

According to allieu, during this type of iinjury, inversion force trauma causes the rupture of the dorsal astrago-scaphodian ligament first followed by the extonsor retinuaculum, the calnaeo-fibular liigament ruptures last.

The diagnosis is easy in front of the obvious deformation of the ankle and is confirmed by standard x-rays which shows the displacement of the calcaneum and the axis of the foot inwards, the talus remains enclosed in the mortise.[3]

Treatment is emergency reduction under general anesthesia. This is done by the maneuver of the boot puller, the knee being in flexion to relax the sural triceps. If the reduction is stable, no internal fixation is justified.[4] This is the case with our patient.

Rehabilitation remains the key to any good result. It will be started as soon as the plaster is removed.

Failure of closed reduction occurs in about 10–30% of cases of subtalar dislocations.[5]

Irreducible subtalar dislocations are more commonly lateral.[6] Inability to obtain closed reduction is often due to soft tissue interposition (peroneal tendons, and joint capsule) or interference by osteochondral elements of the talonavicular. In this case an open reduction is necessary with possible placement of k wire in case of instability.

The prognosis of these lesions is relatively good in most authors except in the event of a skin opening or associated fracture.[1,7,8] The main complications of subtalar dislocation are talar necrosis which is estimated at 4% and subtalar osteoarthritis at 31%.[9]

CONCLUSION

Subtalar dislocation is a very rare orthopaedic trauma condition that occurs with young people in a high energy accident. The diagnosis is clinical confirmed by radiography., the treatment often consists of reduction by external maneuver under general anesthesia, except in cases of irreducibility by soft tissue incarceration where surgical reduction is required. These are lesions with a good prognosis. the main complication is necrosis and osteoarthritis of the talus.

Conflicts of interest

The authors declare no conflict of interest.

Authors' Contributions

All authors contributed to the care of the patient and the writing of the manuscript. All have read and approved the final version of the manuscript.

REFERENCES

1. Hoexum F, Heetveld MJ. Subtalar dislocation : two Cases requiring surgery and a literature review of

the Last 25 years. Arch Orthop Trauma Surg, 2014; 134: 1237-49.
2. Kulambi V, Gaurav M. Lateral subtalar dislocation : A case report. Foot Ankle Online J., 2014; 7(3): 4.
3. Carvera TP. Subtalar dislocation Case report and Literature review. Global J Med Res., 2016; 16: 1.
4. Palomo-Traver JM, Cruz-Renovell E, Granell-Beltran V, Monzonís-García J. Open total talus dislocation: case report And review of the literature. J Orthop Trauma, 1997; 11: 45-49.
5. Jerome Jt, Varghese M, Sankaran B. Anteromedialsubtalar dislocation. J Foot Ankle Surg, 2007; 46(1): 52-4. PubMed | Google Scholar.
6. Amar MF, Chbani B, Loudiyi D et al. Luxation sous-talienne pure chez un footballeur (à propos d'un cas). J Trauma Sport, 2009; 26(4): 250-252. PubMed | Google Scholar
7. Djian P, Thelen P : Luxation sous-talienne : à propos d'un cas. EMC-Rhumatologie Orthopédie, 2004; 1: 94–95.
8. Biz C, Ruaro A, Giai Via A, et al. Conservative management of isolated medial Subtalar joint dislocationsin volleyball players : a report of three cases and Literature review. J Sports Med Phys Fit., 2019; 59: 1739[e]1746. https://doi.org/ 10.23736/S0022-4707.19.09531-8.
9. Prada-Canizares A, Au ~ n~on-Martí I, Vil – A Y Rico J, et al. Subtalar dislocation : Management and prognosis for an uncommon orthopaedic condition. Int Orthop, 2016; 40: 999[e]1007. https://doi.org/10.1007/s00264-015-2910-8.