Scholars Journal of Medical Case Reports
Abbreviated Key Title: Sch J Med Case Rep
ISSN 2347-9507 (Print) | ISSN 2347-6559 (Online)
Journal homepage: https://saspublishers.com

OPEN ACCESS

Orthopedics & Traumatology

Pure Medial Open Subtalar Dislocation: A Case in Bamako

H. Diallo[1*], A. K. Moussa[1], M. Diallo[1], M. B. Traore[1], K. Coulibaly[2], L. Toure[2], D. Coulibaly[1], M. Diallo[1], O. B. Traore[3], B. Diarra[1], I. Diallo[1], E. Dembele[1], D. Traore[1], A. Coulibaly[1], S. Sagara[1], K. Fofana[2], M. Simpara[1], I. Cisse[1], I. M. Traore[2]

[1]Department of Orthopedics and Traumatology, Gabriel TOURE University Hospital, Bamako, Mali
[2]Department of Orthopedics and Traumatology, Bocar Sidy SALL University Hospital, Kati, Mali
[3]Department of Orthopedics and Traumatology, F. DAOU University Hospital, Kayes, Mali

DOI: https://doi.org/10.36347/sjmcr.2026.v14i07.008 | **Received:** 12.05.2026 | **Accepted:** 01.07.2026 | **Published:** 08.07.2026

***Corresponding author:** H. Diallo
Department of Orthopedics and Traumatology, Gabriel TOURE University Hospital, Bamako, Mali

Abstract **Case Report**

Subtalar dislocation is a rare traumatic foot injury in which the calcaneus and navicular bone are displaced relative to the talus, which remains in its normal position within the ankle socket. It should be considered a medical emergency, and no treatment is specific to this injury. We report a case of pure open medial subtalar dislocation following a road traffic accident. The patient underwent emergency reduction followed by stabilization with two calcaneal-talotibial pins and one talonavicular pin, then plaster cast immobilization for six weeks. After 16 months of follow-up, the functional results were satisfactory.

Keywords: Medial subtalar dislocation, road traffic accident.

Copyright © 2026 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution **4.0 International License (CC BY-NC 4.0)** which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

INTRODUCTION

According to Broca [1], subtalar dislocation is defined as a dislocation where the talus remains in contact with the leg bones, while the calcaneus and navicular bone displace beneath it. It is a rare injury, accounting for only 1 to 2% of dislocations [2], occurring only exceptionally following a sports injury, as its mechanism requires high-energy trauma. We report the case of a medial subtalar dislocation resulting from a road traffic accident.

PATIENT AND OBSERVATIONS

Miss A.D., a 17-year-old student with no significant past medical or surgical history, was the victim of a road traffic accident. She was a motorcyclist who was reportedly struck by a car. Clinical examination upon admission revealed localized pain with a slight varus deformity of the foot, a skin laceration with talus avulsion. The neurovascular examination was unremarkable. An anteroposterior ankle radiograph showed a medial talocalcaneal dislocation and a pure talonavicular dislocation. The patient underwent emergency surgery under spinal anesthesia, including appropriate debridement, surgical reduction of the dislocation, and fixation with two 18/10 Kirschner wires in the calcaneal-talotibial region and one 18/10 Kirschner wire in the talonavicular region, all under fluoroscopic guidance. Successful reduction of the dislocation was confirmed on the standard postoperative radiograph. The postoperative course was favorable, with immobilization in a plaster cast and boot for six weeks. At the 15-month follow-up, she experienced mild ankle pain, particularly during long walks and at the end of the day; however, she maintained good range of motion with no signs of osteoarthritis on the follow-up radiograph.

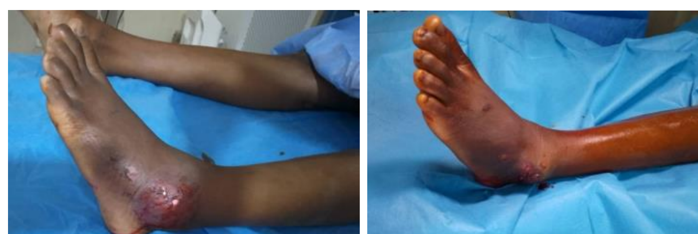

Figure 1: Clinical appearance of the ankle after open subtalar dislocation of the left ankle

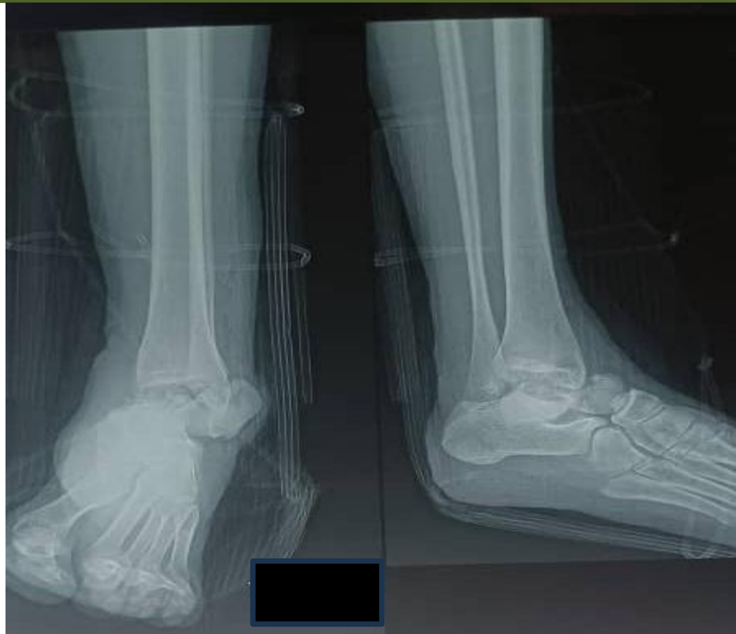

Figure 2: Standard ankle radiograph showing subtalar dislocation

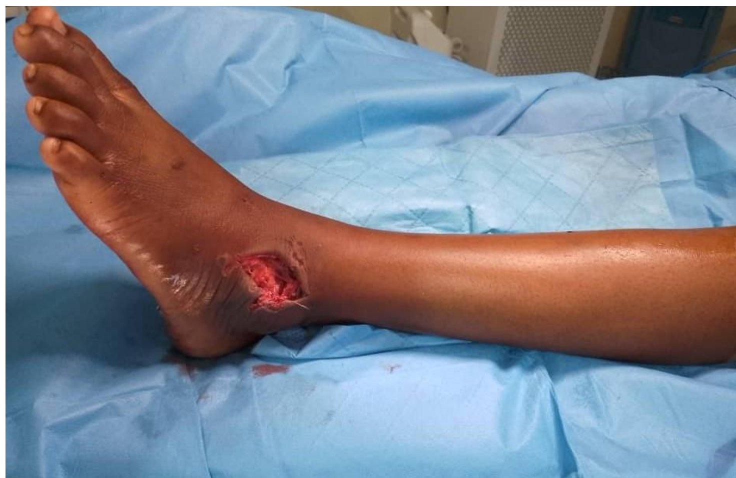

Figure 3: Image of the ankle after surgical debridement and reduction of the dislocation

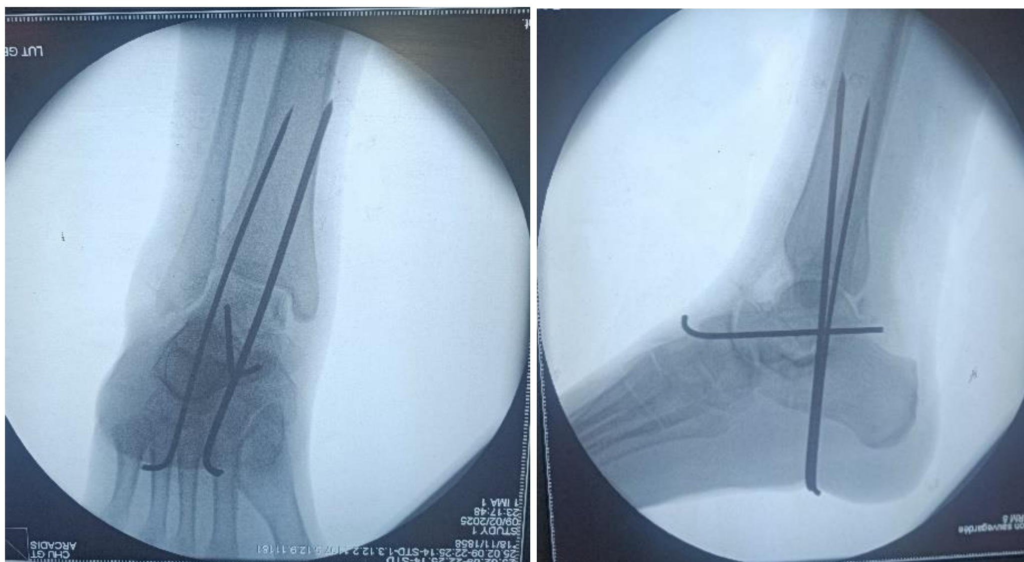

Figure 4: Frontal and lateral incidence after stabilization with pins under fluoroscopic control

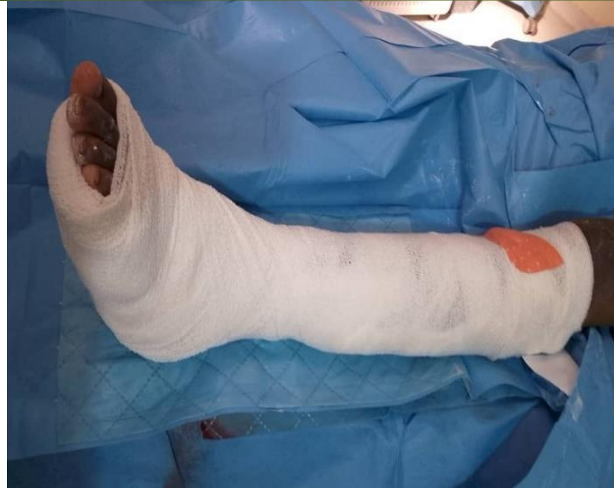

Figure 5: Plaster cast in a boot after trimming and pinning of the ankle

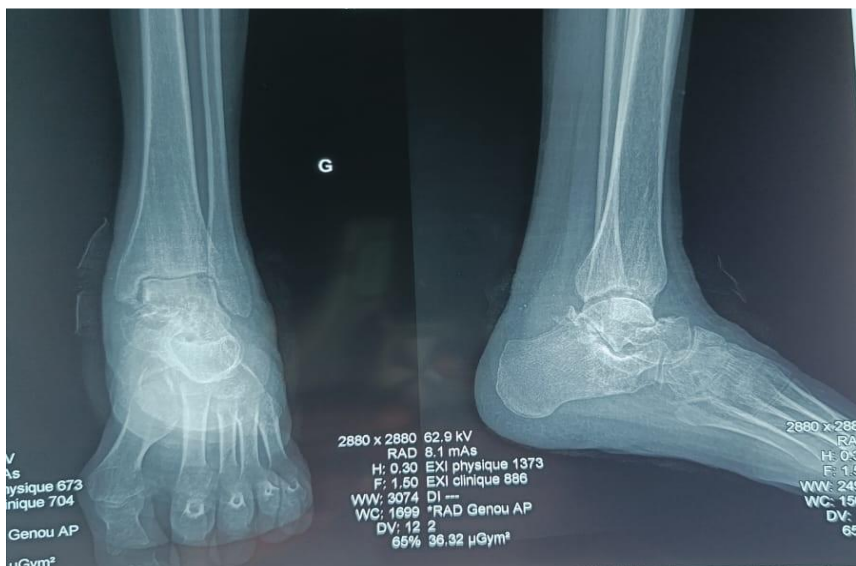

Figure 6: Standard anteroposterior and lateral radiograph of the ankle after pin removal

DISCUSSION

Subtalar dislocations result from high-energy trauma such as road traffic accidents or falls from a height. It is a rare condition, accounting for 1 to 2% of dislocations [3] and 20% of talus injuries [4]. Four types of subtalar dislocation can be distinguished: medial, lateral, anterior, and posterior.

According to Allieu [5], when a foot in a weakened position, i.e., in inversion and equinus, sustains trauma, two degrees of medial subtalar dislocation can result: the first degree corresponds to a talonavicular dislocation with rupture of the dorsal talonavicular ligament, and the second degree corresponds to a subtalar dislocation with rupture of the calcaneofibular bundle of the lateral collateral ligament. The evidence of deformities immediately guides the diagnosis: an external prominence of the talar head while the rest of the calcaneopedal block is displaced medially. Imaging is essential to confirm the diagnosis and includes an anteroposterior or dorsoplantar radiograph of the ankle, as well as a lateral radiograph, which is less informative due to the overlapping of the bones.

Computed tomography (CT) allows for better definition of lesions, particularly those affecting cartilage, and helps detect potential entrapment [6,7]. The open wound can be primary, following high-energy trauma, or secondary, resulting from skin necrosis. An examination for neurovascular complications is always performed. Lateral dislocations present an increased risk to posteromedial structures (posterior tibial pedicle, posterior tibial tendon, and flexor hallucis longus), while medial dislocations threaten the deep fibular pedicle [8].

Rapid diagnosis is essential, requiring immediate reduction under anesthesia, which is often stable. However, there is no consensus regarding the type of immobilization (boot or leg cast) or its duration (3 to 6 weeks) [8]. If instability is detected during testing, it is imperative to maintain the reduction with percutaneous pinning. The prognosis is generally considered favorable by authors [9–11], except for open dislocations or those

associated with a fracture, where the prognosis is less favorable.

Conclusion

Subtalar dislocation is an uncommon traumatic injury. It most often presents with a medial dislocation. The treatment consists of emergency reduction by external manipulation. While the post-reduction outcome is usually satisfactory, the prognosis is guarded in the presence of skin exposure or osteoarticular fractures.

Conflicts of interest: The authors declare no conflicts of interest.

References

1. P B. Memories sur la luxation sousastragaliennes. Mem Soc Chir. 1853 ;3 :566-656.
2. Berrada H, Boueld R, Alami SE, Ekekang S, Lafdil R, Lahlou A, *et al.,* Pure internal subtalar dislocation: About a case. Visual Journal of Emergency Medicine. 1 oct 2022 ;29 :101467. doi: 10.1016/j.visj.2022.101467
3. Leitner B. [Recent internal sub-astragalar dislocation of the foot with tibiotarsal subluxation of the astragalus]. Rev Chir Orthop Reparatrice Appar Mot. 1954 ;40(2) :232-5. PubMed PMID: 13204852.
4. Mindell ER, Cisek EE, Kartalian G, Dziob JM. Late Results of Injuries to the Talus: ANALYSIS OF FORTY CASES. JBJS. Mars 1963 ;45(2) :221.
5. Lapeyrie M, Bruel S, Dossa J, Pous JG, Allieu Y. [Internal talo-scapho-calcaneal dislocation of the foot. Experimental study of its mechanism and nosology. Apropos of 8 cases]. Rev Chir Orthop Reparatrice Appar Mot. 1 oct 1967 ;53(7) :641-56. PubMed PMID: 4384024.
6. Jarde O, Trinquier-Lautard JL, Mertl P, Tran Van F, Vives P. [Subtalar dislocations. Apropos of 35 cases]. Rev Chir Orthop Reparatrice Appar Mot. 1 janv 1996 ;82(1) :42-8. PubMed PMID: 8762988.
7. Mamai O, Ilahiane M, ElBerkani N, Lahrach K, Boutayeb F. Luxation sous talienne interne pure ouverte: à propos d´un cas. PAMJ Clinical Medicine. 11 févr 2020 ;2(40). doi :10.11604/pamj-cm.2020.2.40.21346
8. Norman B. Chirurgie des traumatismes du pied et de la cheville - Présentation - EM consulte [Internet]. Elsevier Masson; [cité 24 juin 2026]. Disponible sur : https://www.em-consulte.com/livre/405020/presentation/chirurgie-des-traumatismes-du-pied-et-de-la-chevil
9. Butel J, Witvoët J. [Fractures and dislocations of the astragalus]. Rev Chir Orthop Reparatrice Appar Mot. Sept 1967 ;53(6) :493-624. PubMed PMID : 4228806.
10. Haliburton RA, Barber JR, Fraser RL. Further experience with peritalar dislocation. Can J Surg. juill 1967 ;10(3):322-4. PubMed PMID: 4381798.
11. Kenwright J, Taylor RG. MAJOR INJURIES OF THE TALUS. The Journal of Bone & Joint Surgery British Volume. 1 févr 1970 ;52-B (1) :36-48. doi :10.1302/0301-620X.52B1.36