

## CLINICAL IMAGE

# False aneurysm in a Charcot foot: A case report

Aymen Ben Fredj  | Fourat Farhat | Hedi Rbai

Orthopaedics Department, Ibn El Jazzar Hospital, Université de Sousse  
Faculté de Médecine de Sousse, Sousse,  
Tunisia

**Correspondence**

Aymen Ben Fredj, Orthopaedics  
Department, Ibn El Jazzar Hospital,  
Université de Sousse Faculté de  
Médecine de Sousse, Sousse, Tunisia.  
Email: [aymen.ben.fredj@gmail.com](mailto:aymen.ben.fredj@gmail.com)

**Funding information**

This research did not receive any  
specific grant from funding agencies in  
the public, commercial, or not-for-profit  
sectors.

**Abstract**

Charcot foot or neurogenic osteoarthropathy is a serious complication of diabetic peripheral neuropathy. The association between false aneurysm and Charcot foot is yet uncommon and has not been reported through the literature. We describe a case of false aneurysm in a Charcot foot in a 55-year-old female patient.

**KEYWORDS**

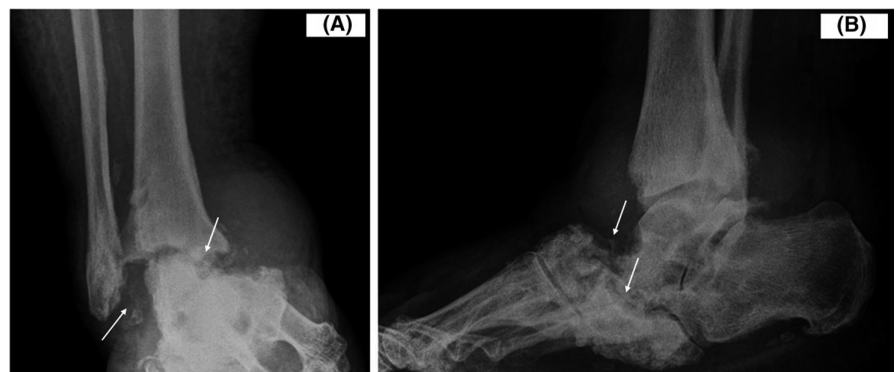
charcot foot, false aneurysm

## 1 | CLINICAL CASE

A 55-year-old female patient suffering from type 2 diabetes mellitus for 10 years with suboptimal diabetic balance, and with no history of surgery, was admitted to our orthopedic department for a non-painful swelling on the dorsum of the right foot evolving for 3 months. Physical examination revealed a non-hot

pulsatile swelling of a very deformed right foot with radiographic signs of osteoarticular destruction ([Figure 1A,B](#)).

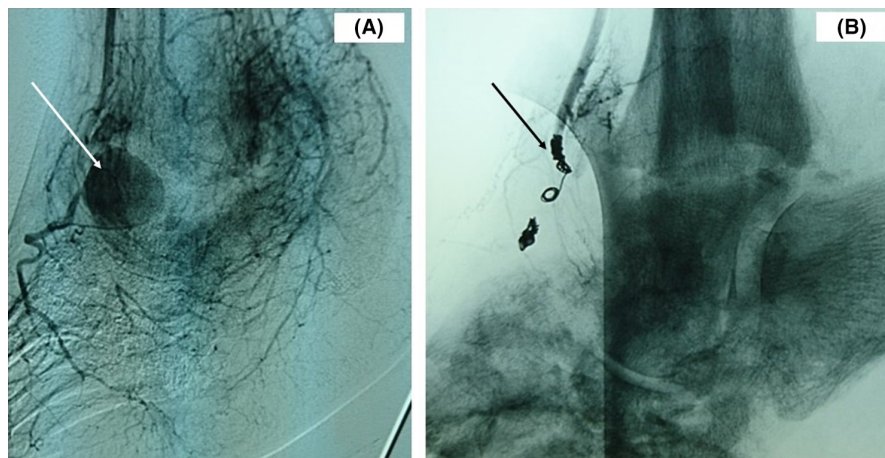
Regarding the pulsating nature of the swelling, we performed an arteriography that showed a false aneurysm of the dorsal pedal artery in relation to the anterior aspect of the ankle ([Figure 2A](#)). The false aneurysm was treated by embolization ([Figure 2B](#)).



**FIGURE 1** (A) Anteroposterior and (B) profile X-rays view of the right ankle showing signs of osteoarticular destruction (arrows) on a Charcot foot

This is an open access article under the terms of the [Creative Commons Attribution-NonCommercial-NoDerivs](https://creativecommons.org/licenses/by-nc-nd/4.0/) License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

© 2022 The Authors. *Clinical Case Reports* published by John Wiley & Sons Ltd.



**FIGURE 2** (A) False aneurysm (white arrow) revealed by arteriography and (B) treated by embolization (black arrow)

Only 33 cases of foot and ankle false aneurysms have been reported.<sup>1</sup> The causes were related to orthopedic foot surgery or ankle sprain. The occurrence of false aneurysm in our case could be explained by low-energy strain injuries resulting from skeletal abnormalities of the Charcot foot.<sup>2</sup>

The hypothesis of false arterial aneurysm must be a part of the diagnoses to be evoked among infectious or tumoral etiologies because manipulating these false aneurysms surgically can lead to significant bleeding that is difficult to control.

#### ACKNOWLEDGMENTS

None.

#### CONFLICT OF INTEREST

None.

#### AUTHOR CONTRIBUTIONS

Aymen Ben Fredj contributed to writing and editing of the manuscript. Fourat Farhat contributed to conceptualization of the manuscript. Hedi Rbai contributed to supervision and validation.

#### ETHICAL APPROVAL

This clinical image is the authors' own original work, which has not been previously published elsewhere.

#### CONSENT

A written informed consent was obtained from the patient to publish this report in accordance with the journal's patient consent policy.

#### DATA AVAILABILITY STATEMENT

Not applicable.

#### ORCID

Aymen Ben Fredj  <https://orcid.org/0000-0001-7512-3003>

#### REFERENCES

1. Yu JL, Ho E, Wines AP. Pseudoaneurysms around the foot and ankle: case report and literature review. *Foot Ankle Surg.* 2013;19(3):194-198.
2. Trieb K. The Charcot foot: pathophysiology, diagnosis and classification. *Bone Joint J.* 2016;98(9):1155-1159.

**How to cite this article:** Ben Fredj A, Farhat F, Rbai H. False aneurysm in a Charcot foot: A case report. *Clin Case Rep.* 2022;10:e05801. doi:[10.1002/ccr3.5801](https://doi.org/10.1002/ccr3.5801)