

CLINICAL VIDEO

Iatrogenic tibial arteriovenous fistula after Fogarty balloon catheter graft thrombectomy

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Abstract

A 75-year-old male presented with an immediately threatened grade IIb acute ischemia of the left leg due to thrombosis of a femoro-infrapopliteal prosthetic bypass graft. After an urgent Computed Tomography Angiography, an urgent graft thrombectomy was performed using a 5 Fr Fogarty catheter, which had a troublesome distal passage, causing a tibial A-V fistula.

KEYWORDS

arteriovenous fistula, fogarty thrombectomy, graft thrombectomy, iatrogenic injury

1 | CASE DESCRIPTION

A 75-year-old man presented with an immediately threatened grade IIb acute ischemia of the left leg due to thrombosis of a femoro-infrapopliteal prosthetic bypass graft. After an urgent computed tomography angiography, an urgent graft thrombectomy was performed using a 5 Fr Fogarty catheter, which had a troublesome distal passage. The leg recovered normal motor and sensory function. Surprisingly, a handheld Doppler device obtained a continuous machinery bruit in the anterior tibial artery/veins, suggesting an arteriovenous fistula, which was depicted in a subsequent digital subtraction angiography and a color duplex examination (Video S1). Most likely, the Fogarty catheter had unintentionally perforated the anterior tibial artery passing into one of the adjacent anterior tibial

veins.^{1,2} The patient was managed conservatively, and the arteriovenous fistula was found to be spontaneously thrombosed in a three-month follow-up (Video S1).

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CONFLICTS OF INTEREST

There are no conflicts of interest to declare.

AUTHOR CONTRIBUTIONS

SP, KM, NK, FM, AT, and CS contributed to the clinical data collection and prepared the case report. SP, FM, PK, KK, and SK contributed to the design of the case report presentation and performed the final revision of the manuscript.

ETHICAL APPROVAL

This report for a clinical image was in accordance with the Declaration of Helsinki.

CONSENT

A formal informed consent was obtained from the patient prior to the publication of this article.

DATA AVAILABILITY STATEMENT

Data are available on request from the authors.

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REFERENCES

1. Shifrin EG, Anner H, Levy P, Milgater E. Arterio-venous fistula in the lower limb in consequence of Fogarty balloon

catheter embolectomy. case report and review of the literature. *J Cardiovasc Surg (Torino)*. 1985;26(3):310-313.

2. AcínF DeBenitoL, GuilleumaJ GarcíaPajaresR, MarchJR BuenoA. Peroneal arteriovenous fistula as a complication of above-knee femoropopliteal polytetrafluorethylene graft thrombectomy with the Fogarty catheter. *J Cardiovasc Surg (Torino)*. 1996;37(2):113-115.

SUPPORTING INFORMATION

Additional supporting information may be found in the online version of the article at the publisher's website.

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