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IMAGES IN INTERVENTION

Compression of a Woven Self-Expanding Femoropopliteal Stent Leading to Occlusion

Eugenio Stabile, MD, PhD,[a] Tullio Niglio, MD,[a] Giuseppe Giugliano, MD,[b] Bruno Trimarco, MD,[a] Giovanni Esposito, MD, PhD[a]

Diagnostic angiography showed total occlusion of the distal right superficial femoral artery in a 73-year-old man (**Figure 1A1**). Percutaneous transluminal angioplasty was performed (**Figure 1A2**), and a woven self-expanding nitinol stent (Supera Peripheral Stent System, Abbott Vascular, Abbott Park, Illinois) was implanted (**Figures 1A3 to 1A5**).

After 20 months, the patient reported symptom recurrence, and duplex ultrasonography showed stent occlusion at the site of compression (**Figure 1B1**). Diagnostic angiography confirmed total stent occlusion and compression (**Figures 1B2 and 1B3**). Similar compression was obtained by stent twisting on the bench (**Figure 1B4**). After an unsuccessful attempt at recanalization, the patient was discharged home on medical therapy.

This braided woven nitinol stent system has been claimed to withstand the stresses along the course of the femoropopliteal artery. This design has been associated with reduced stent fracture improved patency rates (1). To date, no stent compression has been reported (2). This case could be considered hypothesis generating to evaluate the incidence of this event.

REPRINT REQUESTS AND CORRESPONDENCE: Dr. Eugenio Stabile, Federico II University of Naples, Department of Advanced Biomedical Sciences, Division of Cardiology, Via Pansini 5, Naples 80131, Italy. E-mail: geko50@hotmail.com.

From the [a]Division of Cardiology, Department of Advanced Biomedical Sciences, Federico II University, Naples, Italy; and the [b]Division of Cardiology, Clinica Montevergine, Mercogliano, Italy. The authors have reported that they have no relationships relevant to the contents of this paper to disclose.

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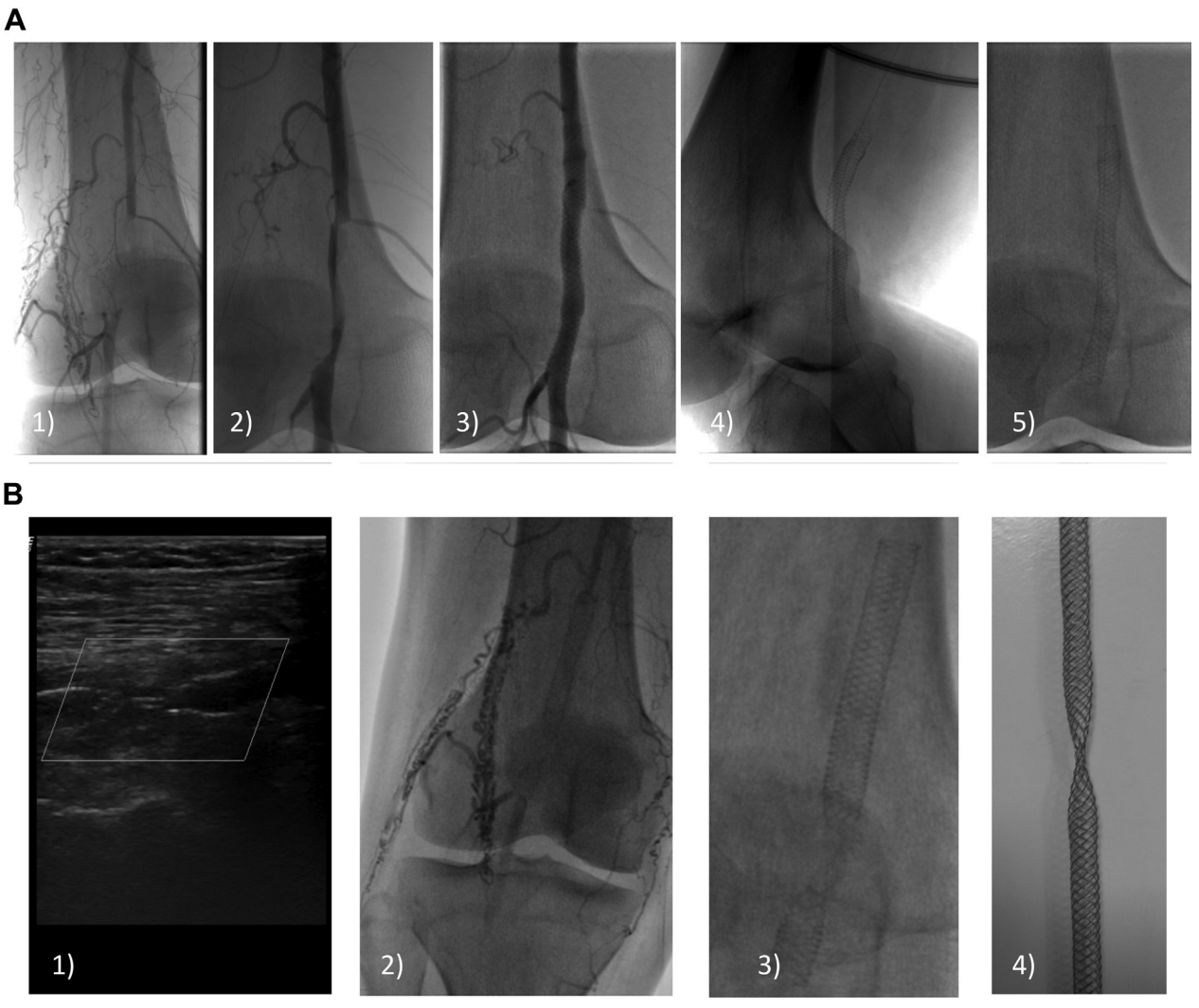
FIGURE 1 A Woven Self-Expanding Nitinol Stent Compression in the Femoropopliteal Artery



(A1) Selective angiography showing distal superficial femoral artery occlusion. **(A2)** Evidence of vessel dissection and significant residual stenosis after percutaneous transluminal angioplasty. **(A3)** Angiographic results after stent implantation. **(A4)** Proper stent expansion, even after bending of the knee **(A5)**. **(B1)** Duplex ultrasonographic examination after 2 years showing no distal flow and stent collapse. **(B2)** Occlusion of distal right superficial femoral artery with stent compression **(B3)**. **(B4)** Bench testing compression obtained by twisting of the stent.

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