Livedo reticularis due to catastrophic cholesterol embolization

Saurabh S Dhawan MD

A 55-year-old man was admitted for severe bilateral lower extremity claudication with diminished peripheral pulses. An abdominal aortogram revealed severe atherosclerosis, primarily involving the right-sided external iliac, femoral and popliteal arteries. The condition was treated with endovascular stenting. Twelve hours after the procedure, the patient developed severe bilateral buttock, thigh and calf pain with profound mottling and purple skin discolouration (livedo reticularis) of the thigh (Figure 1). He also developed severe rhabdomyolysis, followed by a compartment syndrome that necessitated fasciotomy followed by bilateral, below-the-knee amputation. Biopsy of the gangrenous portions revealed intra-arterial cholesterol crystals

Figure 1

(black arrow) and clefts (white arrow) (Figure 2), which resulted from cholesterol washout during histological processing. This finding confirmed cholesterol crystal embolization induced by the endovascular intervention. Atheromatous embolization is a multisystem disease complicating advanced atherosclerosis. It occurs most often as a complication of angiography, an endovascular procedure or cardiovascular surgery (1).

REFERENCE

1. Liew YP, Bartholomew JR. Atheromatous embolization. *Vasc Med* 2005;10:309-26.

Figure 2

Department of Internal Medicine, University of Tennessee Health Science Center, Memphis, Tennessee, USA

Correspondence: Dr Saurabh S Dhawan, University of Tennessee Health Science Center, Department of Internal Medicine, 842 Jefferson Avenue, Suite A601, Memphis, Tennessee 38103, USA. Telephone 646-359-3905, fax 901-448-7836, e-mail csaurabh@gmail.com

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