A 78-year-old man who had undergone coronary artery surgery in 1993 with the implantation of saphenous vein grafts to the right coronary and obtuse marginal coronary, and of the left internal mammary to the anterior descending coronary, presented episodes of angina pectoris at rest. Coronary angiography disclosed total occlusion of the 3 native vessels, critical stenosis in the body of the saphenous graft to the marginal artery, and an image of an intraluminal thrombus adhered to the stenosis (Figure 1, arrow). The other 2 grafts were functioning correctly. Percutaneous treatment of the stenosis was planned.

Frequently, the catheter balloon and stent dislodge thromboatheromatous material from the degenerated saphenous veins, causing distal embolization, elevation of the markers of myocardial necrosis, and increased mortality. To prevent these complications, in this patients we used a device fitted with a distal filter (Filter-Wire EX™, Boston Scientific) that is introduced as a guide-wire beyond the stenosis and opened like a basket. This device allows the passage of distal coronary flow through 80-micron micropores. As a 4 mm×15 mm stent was inserted, a fragment embolized (2 mm×2 mm×8 mm) and was caught in the filter (Figure 1; asterisk: loop of the filter, t: thrombus). It could then be closed and removed with a simple maneuver. The angiographic result was good and there was no elevation of troponin T or CK after the procedure. The extracted fragment had a yellowish part, with a high cholesterol content under the microscope (Figure 2A), and an adjacent reddish part with a fibrinohematic content (Fig. 2B).

Vicente Mainar, Pascual Bordes y Alberto Berenguer Jofresa
Servicio de Cardiología. Hospital General Universitario de Alicante. España.

Fig. 1.

Fig. 2A and B.

Catching the Bypass Graft Thrombus