SUCCESSFUL USE OF THE GUARDWIRE PLUS DISTAL EMBOLISATION PROTECTION DEVICE IN A NATIVE LEFT ANTERIOR DESCENDING CORONARY ARTERY

A 66-year-old man was transferred for coronary angiography 48 hours after presentation to a referring hospital with an acute coronary syndrome. Selective injection of the left coronary artery revealed a large mobile thrombus in the proximal left anterior descending artery (panel A, arrow). Removal of the thrombus with the Possis AngioJet rheolytic thrombectomy catheter was considered, but was rejected in view of the mobility of the thrombus and the risk of embolisation. Instead, the Medtronic Guardwire Plus system, a distal embolisation protection device, was used. This device has been evaluated in saphenous vein graft interventions but has not been tested for use in native coronary arteries, nor has it been approved by the US Food and Drug Administration. The system consists of a low profile elastomeric occlusion balloon at the end of a specialised 0.014 inch, nitinol, hypotube angioplasty wire. Abciximab was commenced and the lesion was crossed with the Guardwire. The occlusion balloon was inflated distal to the lesion resulting in temporary obstruction (panel B, arrow). Using the Guardwire the lesion was directly stented with a 4 × 12 Nir Elite stent during distal occlusion (panel C). The stent balloon was removed and the Export aspiration catheter passed into the occluded artery through which 20 ml of blood and thrombotic debris was aspirated. The distal occlusion balloon was then deflated restoring antegrade flow (panel D). Subsequent angiography showed TIMI 3 flow, good myocardial contrast blush, and no obvious loss of distal branches. Post-procedural enzymes were not raised suggesting little distal embolisation of thrombus.