Polypoid pseudomyxoma of the ascending aorta following a Dacron Tube graft

Saina Attaran, Mark Field, Tim Helliwell, Michael Desmond, Sally Anne Collis, Manoj Kuduvalli, Aung Oo

Liverpool Heart and Chest Hospital, Liverpool, UK

A 58-year-old man with history of Waldenström’s Macroglobulinaemia was investigated for atrial fibrillation and found to have significant aortic regurgitation and aneurysm of root and ascending aorta. He underwent replacement of the aortic valve, root and ascending aorta with a mechanical valve conduit using Bentall technique.

A CT scan eight months later demonstrated multiple filling defects inside the arch and distal ascending aorta (Fig. 1). He underwent a redo procedure; on circulatory arrest, the distal ascending aorta and the arch were opened. A polypoid mobile mass of pale yellow rubbery tissue measuring 10x5x4 cm was attached to the aortic intima at the distal suture margins of the graft extending distally to the arch (Fig. 2). The mass, the distal ascending aorta and the tube graft were excised. The aorta was replaced as hemi-arch fashion using Hemashield tube graft.

Histology revealed abundant myxoid matrix which was acellular centrally and, more peripherally, surrounded nodular areas of spindle and stellate cells. Organising fibrin was present on the surface. The aortic intima showed myxoid change at the site of attachment of the mass close to the graft margin. The histological features are very similar to those of a cardiac myxoma but, given the close association with the site of recent surgery, a reactive pseudomyxomatous proliferation of intimal cells is the preferred diagnosis. The patient made a full recovery.

Complications of Teflon used for reinforcing the anastomoses are extremely rare but Teflon used for buttressing inside the lumen should be in small pieces to prevent stenosis and other complications.

This is the first case to report a possible association between Teflon with a mass-forming, reactive pseudomyxomatous intimal lesion. A coagulopathy associated with
Waldenström’s macroglobulinaemia may have contributed to the development of this lesion.