Valve-Sparing Aortic Root Replacement for Rapidly Growing Multiple Sinus of Valsalva Pseudoaneurysms in a Case of Behçet’s-Like Aortitis

Amit Pawale, MD, FRCS, Amy Kontorovich, MD, PhD, Raj Kaushik, MD, Partho Sengupta, MD, Javier Sanz, MD, Vicente Orozco-Sevilla, MD, Angela McGuire, MD, Harshwardhan Thaker, MD, PhD, and Paul Stelzer, MD

Departments of Cardiothoracic Surgery, Cardiology and Cardiovascular Imaging, and Pathology, Mount Sinai Medical Center, New York, New York; and Department of Cardiothoracic Surgery, St. Mary’s Hospital, Passaic, New Jersey

A 34-year-old man, suspected and treated for Behçet’s disease, had a computed tomographic angiogram (Fig 1A), magnetic resonance imaging (Fig 1B), and a transesophageal echocardiogram (Fig 1C) with a three-dimensional endoaortic view (Fig 1D) for recurrent pleuritic chest pain, which showed three pseudoaneurysms arising from left and noncoronary sinuses of the aortic root (largest 2 cm).

Intraoperatively largest pseudoaneurysm (*) was protruding out toward the superior vena cava above the right pulmonary artery, impending rupture (Fig 2A). The internal openings of the three pseudoaneurysms are shown in (Fig 2B) with relation to left main coronary ostium (*). All the pseudoaneurysms along with the sinuses were excised (Fig 2C), and valve sparing aortic root replacement (David’s procedure) (Fig 2D) was performed along with plication of right coronary cusp with no aortic insufficiency.

The pathological examination showed transmural inflammation of aortic wall with diffuse lymphocytic infiltrate in all layers and healing fibrosis around vasa vasorum (Fig 3A, hematoxylin and eosin stain with 20× magnification) and loss of internal elastic lamina (Fig 3B, elastic Van Gieson’s stain with 10× magnification).