Multiple pseudoaneurysms of aortic arch in a patient with Behcet’s disease

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A 24-year-old male was admitted to our clinic because of congestive heart failure. He was diagnosed with Behcet’s disease. Systolic and diastolic murmur was heard in all cardiac areas. Trans-thoracic echocardiography (five-chamber view) showed aortic regurgitation, mitral regurgitation, a fistula between aorta and left atrium, and dilatation of right aortic sinus (Panel and see Supplementary data online, Video S1A). Full-volume three-dimensional transthoracic echocardiography also revealed dilatation of right aortic sinus (Panel and see Supplementary data online, Video S1B). To clarify this pathology, we performed cardiac computed tomography (CT). Horizontal (Panel C), coronal (Panel D) subvolume maximum intensity projection, and three-dimensional coloured volume rendered (Panel E) CT angiography images displayed multiple pseudoaneurysms in different areas including ascending aorta adjacent to right coronary artery, between aorta and pulmonary artery, brachiocephalic artery, and right common carotid artery.

Aortic pseudoaneurysms most frequently arise from surgical suture lines, but can also result from genetic disorders, infection, or trauma. The underlying pathological mechanism is a weakening of the intima and media of the aorta. Aortic pseudoaneurysms typically grow over time, which can lead to aortic rupture. Therefore, it should be treated surgically at the earliest. We decided to treat him medically because of high surgical mortality. We herein present a case of multiple pseudoaneurysms in an adult patient with Behcet’s disease using multimodality imaging. In the presence of aortic root dilatation, the full spectrum of non-invasive cardiac imaging modalities should be performed in the diagnosis of pseudoaneurysms. Ao, aorta; PA, pulmonary artery; asterisk, pseudoaneurysm; arrow, fistula.

Supplementary data are available at European Heart Journal — Cardiovascular Imaging online.

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