A 33-year-old man arrived at the emergency department with profuse sweating and fever, which had initiated 2 months earlier. The patient mentioned that 2 weeks prior had presented an episode of sudden intense substernal pain, for which he did not seek any medical attention. On physical examination the patient’s blood pressure was 120/60 mmHg, with tachycardia, diastolic aortic murmur, Quincke’s pulse and positive Lynn’s manoeuvre (with the patient in the supine position an increase in radial pulse amplitude when raising the arm).

A transthoracic echocardiogram was performed on the patient upon admission, which showed a dilated aortic root and ascending aorta, with a dissection flap that protruded through the aortic valve in diastole causing severe aortic regurgitation, and a vegetation suggestive image on the tip of the flap (Supplementary data online, Videos S1–S5).

A transoesophageal echocardiogram was ordered and the aortic dissection diagnosis was confirmed, with a dissection flap from the aortic root to the aortic arch without compromising the coronary ostia. There was a mass at the entry tear of the aortic dissection that protruded into the left ventricle outflow tract resulting in an incomplete coaptation of non-coronary cusp and severe aortic regurgitation. The aortic CT showed a Stanford A, De Bakey II aortic dissection. The patient underwent the Bentall and De Bono procedure without complications. There were vegetations up to 3 cm in the aortic dissection flap. The blood culture was positive for *Serratia marcescens*. He was discharged after 6 weeks of i.v. antibiotics.

(A) Transthoracic echocardiogram showing ascending aortic aneurysm, dissection flap, and vegetation protruding into the left ventricle outflow tract (arrow) causing severe aortic regurgitation. (B) Transoesophageal echocardiogram confirming the presence of ascending aortic aneurysm and dissection (short arrow). Observe the vegetation on the tip of the flap and how it protrudes through the aortic valve (long arrow). (C) Three-dimensional transoesophageal echocardiogram showing the presence of ascending aortic aneurysm and dissection from various perspectives. Observe the vegetation on the tip of the flap (long arrow) and its relation with the aortic cusp (asterisk) in systole and diastole.

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

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