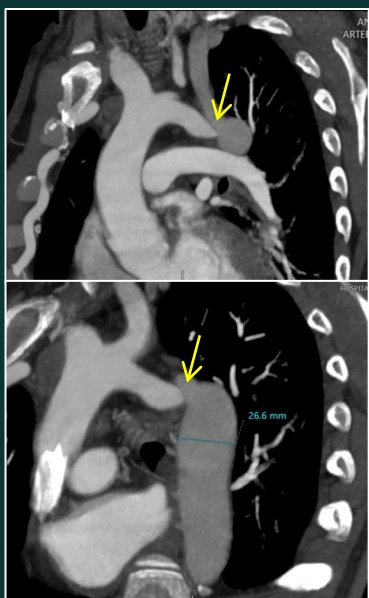


An unusual case of circumflex coronary artery fistula connected to descending aorta associated with bicuspid aortic valve and aortic coarctation.

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A 38-year-old male with no medical history. Admitted at emergency room presenting with history of angina, dyspnea, high blood pressure (220/110 mmHg) and pulmonary edema requiring mechanical respiratory support.



An echocardiogram identified dilated cardiomyopathy, reduced LVEF and a bicuspid aortic valve. Blood pressure measurements showed a differential of more than 40 mmHg between the right upper and lower limbs. Given the suspicion of aortic coarctation, EKG-gated computed tomographic was performed.

This confirmed aortic coarctation with critical stenosis distal to the origin of the left subclavian artery, post-stenotic dilatation, bicuspid aortic valve and coronary artery fistula originating from the proximal third of the circumflex artery connecting to descending aorta.

A) Aortogram with evidence of aortic coarctation. B,C) 3D volume-rendered aortogram and angiography showing a complex aortic coarctation, bicuspid aorta and a coronary artery fistula originating from the proximal third of the circumflex artery draining into the descending aorta. D) Left coronary angiography with evidence of a proximal circumflex artery fistula draining into the descending aorta.



To date, only two similar cases have been reported in the medical literature.