

Images in Surgery

A case of bicuspid aortic valve with coarctation of aorta

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A 28-year-old male patient presented with angina on exertion for 3 years, dyspnea on exertion for 2 years. On examination patient was average built, having slow rising pulse, with ejection systolic murmur over aortic area, radiating to carotids.



Figure 1: Chest X-ray suggestive of notching of inferior margins of the ribs.

Blood investigations were normal, ECG was suggestive of LV strain pattern, Chest X ray was suggestive of LV type apex with notching of inferior margins of ribs. 2D Echocardiography was done, and was suggestive of thickened calcified bicuspid aortic valve, aortic annulus 21 mm, ascending aorta 42 mm, Gradient across aortic valve Peak 100 mmHg, Mean 64 mmHg. Patient was referred for Aortic valve replacement.

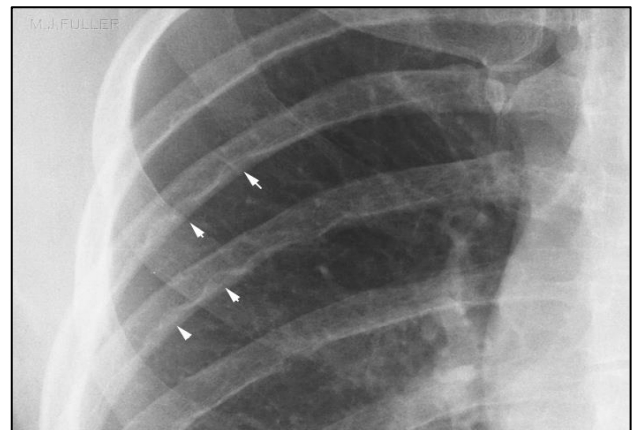


Figure 2: Chest X-ray suggestive of notching of inferior margins of the ribs.



Figure 3: 3 D reconstruction ct aortography showing juxtaductal coarctation with no antegrade flow suggesting total aortic occlusion.

However, in view of borderline dilated ascending aorta, CT aortography was done, and was suggestive of membranous juxtaductal Coarctation of aorta with no antegrade contrast opacification suggesting total aortic occlusion with reformation of aorta through large systemic thoracic wall and mediastinal collaterals.

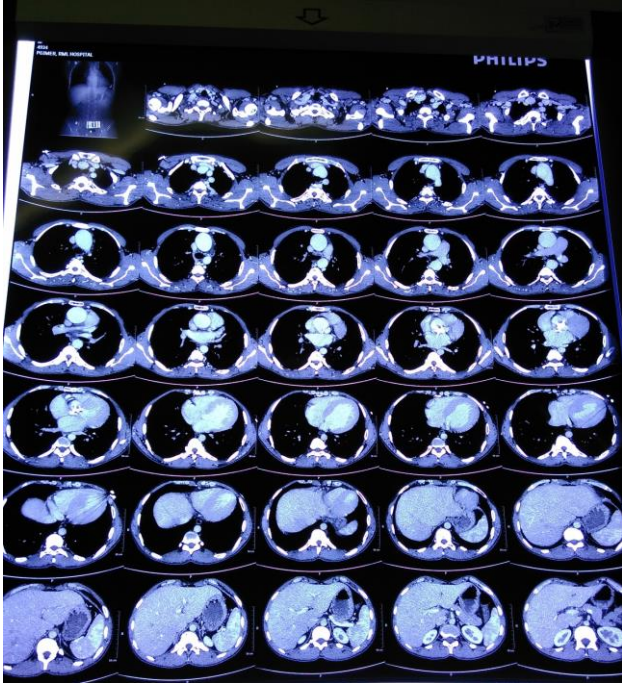


Figure 4: CT chest and aortography showing Coarctation of aorta.

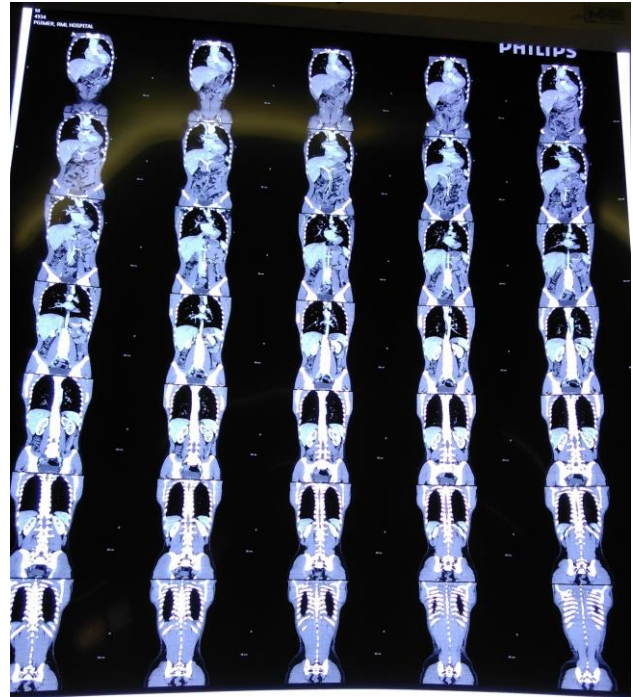


Figure 5: CT chest and aortography showing coarctation of aorta (in coronal plane).

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