A TRIO OF RIB NOTCHING, DIFFERENTIAL HYPERTENSION AND ABSENCE OF LEFT CAROTID PULSE

Poster Contributions
Poster Hall B1
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Session Title: FIT Clinical Decision Making: Structural Heart Disease and Pulmonary Hypertension
Abstract Category: Congenital Heart Disease
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Background: Type C interrupted aortic arch (IAA), defined as a loss of luminal continuity between innominate and left common carotid artery (LCC) arteries.

Case: A 43-year-old woman presented with exertional dyspnea for 1 week. Examination noted a differential hypertension with a systolic pressure of 155 mm Hg over right arm, 108 mm Hg over left arm, 98 mm Hg over right thigh, and 105 mm Hg over left thigh. Palpation of the neck did not detect left carotid pulsation. Chest radiograph noted cardiomegaly and pulmonary edema, notching of right 4th and 5th ribs, and a disrupted left-side aortic arch.

Decision Making: Echocardiogram noted left ventricular apical akinesis and a complete interruption of aortic arch distal to right innominate artery. Cardiac MRI and CT scan confirmed a type C IAA. Right subclavian artery was tortuous with substantial collateral arteries to descending aorta. Left subclavian and vertebral arteries arose from the descending aorta distal to the interruption. CT scan noted absence of LCC and left carotid canal. The left carotid system was supplied by the right internal carotid and basilar arteries via the circle of Willis. She declined surgical intervention and underwent a right transradial PCI with stents deployment to left anterior descending artery. She was asymptomatic and received antihypertensive therapy.

Conclusion: This case highlights the importance of thorough physical examination and use of multimodal imaging for evaluation of a type C IAA with absence of LCC.