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EXPLORING THE ICEBERG: DETECTION AND MANAGEMENT OF ISOLATED INTERRUPTED AORTIC ARCH AND ASSOCIATED HYPERTENSION- A RARE ENTITY

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Objectives: Prompt diagnosis and management of hypertension, particularly in younger patients, are crucial to reducing complications, mortality, and expenses. A thorough history and careful physical examination are key steps. This article illustrates one such unusual case that had a subtle presentation and went undiagnosed until it was brought to our attention.

Methodology: A 30-year-old male patient with a history of fatigue, poor exercise tolerance, and mild headaches was diagnosed with hypertension. He was commenced on amlodipine and had no family history of cardiac diseases or secondary hypertension. The patient appeared weak and thin, with a BMI of 16.6 kg/m2. His radial pulse was regular and 98 bpm, and his brachial blood pressure was recorded at 190/90 mmHg. Further examination revealed weak lower limb pulses, a radio-femoral delay, and an ankle blood pressure of 100/60 mmHg. A 3/6 systolic murmur was noted at the aortic area. Routine laboratory investigations revealed a chest x-ray showing notching of the ribs and an absent aortic knob. A transthoracic echocardiogram was performed, but it did not provide conclusive results. A CT angiography of the chest revealed a complete interruption of the aorta just below the left subclavian artery in a "rat tail fashion." The aortic valve was normal, and no other aortic or cardiac pathology was found. The patient was diagnosed with IAA type A and surgical correction was suggested. Antihypertensive medication was given to achieve blood pressure control, and surgical correction was done involving end-to-end anastomosis. The patient's postoperative period was uneventful, and at four weeks, his symptoms subsided, and his blood pressure was 130/80 mmHg without antihypertensive medications.

Results: The patient had an interrupted Aortic Arch type A and underwent treatment with antihypertensive medications and surgical correction. After a month, symptoms subsided, blood pressure was 130/80 mmHg, and pulses were bilaterally normal. Post-op CT Aortogram showed good anatomic continuity and no complications.

Conclusion: Mild symptoms might only be the tip of an iceberg, calling for further exploration. IAA, despite its rarity, should be considered a potential cause of hypertension.

Keywords: Hypertension, congenital heart disease, Interrupted Aortic Arch, differential blood pressure

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