



PD020

Paediatric Cardiology & Congenital Heart Disease • Poster Presentation

SILENT HYPERTENSION REVEALING COARCTATION OF THE AORTA IN AN ADOLESCENT BOY: A CASE REPORT

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Introduction: Coarctation of the aorta (CoA) is a congenital narrowing of the aorta, accounting for 5–7% of congenital heart diseases. Presentation varies with age, from heart failure in neonates to silent hypertension in older children and adolescents. Many late presenters remain asymptomatic, with hypertension being the first clue.

Case Presentation: We report the case of a 14-year-old boy referred to the cardiology clinic after elevated blood pressure was detected during routine school-entry screening. He had a 3-year history of exertional palpitations and intermittent central chest pain but no dyspnea, claudication, headaches, or visual disturbance. Examination revealed blood pressure disparity: 149/76 mmHg in the upper limbs versus 100/70 mmHg in the lower limbs, with radio-femoral delay and a grade 2/6 ejection systolic murmur at the left upper sternal border. Chest X-ray demonstrated a "figure 3" sign, echocardiography confirmed coarctation of the aorta, and CT angiography showed post-ductal narrowing. He underwent successful surgical repair and remains well on follow-up.

Discussion: This case underscores the importance of routine blood pressure screening in children and adolescents, as late-presenting CoA may remain clinically silent until hypertension or complications arise. Classic signs such as blood pressure gradient and radio-femoral delay are key to diagnosis. Early recognition and timely surgical intervention significantly improve long-term survival and quality of life.

Conclusion: Silent hypertension may be the only clue to underlying CoA in adolescents. Routine BP measurement during school health programs is a simple but vital strategy for early detection of congenital cardiovascular anomalies.

Keywords: health school screening, hypertension, coarctation of the aorta, adolescent