

Letter to the Editor

Anomalous left coronary artery arising from the right pulmonary artery

I READ WITH GREAT INTEREST THE ARTICLE FROM Ho et al,¹ describing the late diagnosis of an amazing association between anomalous origin of the left coronary artery from the pulmonary trunk, a left-to-right shunt via an arterial duct, with aortic coarctation and mitral stenosis. The quality of the discussion and the iconography are second to none.

Interestingly, we recently described a similar pathophysiologic condition² in a patient with an anomalous left coronary artery arising from the right pulmonary artery that had been undiagnosed by echocardiography, due to its association with multiple ventricular septal defects, patent arterial duct and aortic coarctation. Until palliative surgery in the form of banding of the pulmonary trunk and ligation of the duct, the flow of blood in the left coronary artery was probably close to normal, since pulmonary and aortic pressures were similar. After surgery, the patient dramatically deteriorated, and died with a massive myocardial infarction, complete atrioventricular block, and in severe cardiogenic shock.

These cases certainly reflect how difficult it still is nowadays to clearly diagnose aberrant origin and course of the coronary artery, particularly if associated with left-to-right shunts³⁻⁵ simulating a normal physiological scenario.

References

1. Ho SY, Gatzoulis MA, Sheppard M. An unusual anomalous course of a coronary artery from the pulmonary trunk, coexisting with congenital mitral stenosis and aortic coarctation. *Cardiol Young* 1998; 8: 265-270.
2. da Cruz E, Carbognani D, Laborde F, Bougaran J, Dibie A, Le Bidois J, Batisse A, Fermont L. Aortic coarctation, multiple ventricular septal defects, and anomalous coronary artery arising from the right pulmonary artery. *J Thorac Cardiovasc Surg* 1998; 115: 244-246.
3. Ortiz E, de Leval M, Somerville J. Ductus arteriosus associated with an anomalous left coronary artery arising from the pulmonary artery: catastrophe after duct ligation. *Br Heart J* 1986; 55: 415-417.
4. Sreeram N, Hunter S, Wren C. Acute myocardial infarction in infancy: unmasking of anomalous origin of the left coronary artery from the pulmonary artery by ligation of an arterial duct. *Br Heart J* 1989; 61: 307-308.
5. Nehgme RA, Dewar ML, Lutin WA, Talner NS, Hellenbrand WE. Anomalous left coronary artery from the main pulmonary trunk: physiologic and clinical importance of its association with persistent ductus arteriosus. *Pediatr Cardiol* 1992; 13: 98-99.

Eduardo da Cruz, MD
Service of Paediatric Cardiac Surgery
H.C.I. International Medical Centre
Clydebank
Scotland,
United Kingdom