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Aberrant right subclavian artery and right-sided ductus arteriosus

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DESCRIPTION

A premature newborn weighing 1.9 kg, presenting with cyanosis, feeding and respiratory difficulties was admitted to our centre for further evaluation. An initial echocardiogram suggested a pulmonary atresia with a malalignment infundibular ventricle septum defect with atypical right-sided ductus arteriosus (2.4 mm) arising from the aberrant right subclavian artery (4 mm), which was originating from the left-sided descending aorta. The right ductus arteriosus was connected to a small central pulmonary bifurcation (2–3 mm). Intravenous prostaglandin E1 was initiated. A cardiac catheterisation revealed a relevant left to right shunt and normal coronary anatomy. A left ventriculography and an aortogram demonstrated a left aortic arch with two branches arising

from it—the first being truncus brachiocephalicus followed by the left common carotid artery. The aberrant right subclavian artery originating from the left-sided descending aorta was communicated through a right patent ductus arteriosus with the pulmonary bifurcation (figure 1). Surgical treatment included a left-sided modified Blalock–Tausig shunt¹ with resection of ductus arteriosus.

The case describes an unusual vascular ring^{2 3} with pulmonary atresia and ventricular septal defect. The only source of pulmonary blood flow was a right-sided persistent ductus arteriosus, which originated from an aberrant right subclavian artery.

Competing interests None.

Patient consent Obtained.

Figure 1 Aortogram (anterior posterior view): left-sided descending aorta, which is temporary occluded, aberrant right subclavian artery (arteria lusoria) originating from the descending aorta communicating through a right-sided ductus arteriosus with pulmonary bifurcation as the only source for pulmonary flow.

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