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–Taussig shunt1 with resection of ductus arteriosus.

The case describes an unusual vascular ring2–3 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 (anteroposterior 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.
REFERENCES