

Echocardiographic Features and Management of Neonatal Ductal Aneurysm

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Abstract

Objectives: To determine the case incidence of ductus arteriosus aneurysm among our neonates, and to report on our experience in the presentation, echocardiographic features, management and outcome of this condition. **Methods:** Retrospective review of cases diagnosed within a 1-year period from 1 July 1998 to 30 June 1999. **Results:** Eight cases of neonatal ductus arteriosus aneurysm (DAA) were diagnosed from 1 July 1998 to 30 June 1999. There were 998 new neonatal echocardiograms done during this period, giving us a case incidence of 0.8 per 100 echocardiograms. Only 1 patient was diagnosed antenatally, all others were detected incidentally on echocardiography done for other indications. None had symptoms related directly to the DAA and there was no suggestive mediastinal mass on chest X-ray. Majority were term infants (88%) and there was a predominance of male infants (75%). Three were associated with patent ductus arteriosus (PDA), while in the others, the ductus arteriosus were non-patent at first echocardiography. In the 3 infants whose ductus arteriosus was patent, the PDA was inserted into the pulmonary artery from an unusually superior direction. Close serial echocardiography on some of our patients suggested that resolution of the aneurysm is by thrombosis, manifesting as an echogenic area, followed by regression. In our series, 7 had total resolution, while 1 patient had a persistent echogenic area which became progressively smaller. **Conclusions:** We found ductus arteriosus aneurysms in 0.8% of our neonatal echocardiograms. An unusually superior insertion of PDA into the pulmonary artery is a marker for its presence. Asymptomatic aneurysms resolve spontaneously and should be managed expectantly. Thrombosis plays a part in the resolution of ductal aneurysm.

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