experience. In our unit and many others, however, all patients with Down's syndrome are screened by cross sectional echocardiography, even in the absence of abnormal cardiac signs. Thus, given an awareness of the possibility of AVSD with intact septal structures, the condition will be picked up in the Down's syndrome group, whereas chromosomally normal children with no abnormal cardiac signs would not normally have a two dimensional echocardiogram and would therefore not be identified.

This is the first report of patients with AVSD and intact atrial and ventricular septal structures diagnosed echocardiographically. These cases show that AVSDs can exist without interatrial or interventricular communications and that the hallmark of this condition, the common atrioventricular junction together with a trileaflet left atrioventricular valve, can reliably be detected by cross sectional echocardiography.

Authors' affiliations

J P Kaski, Inherited Cardiovascular Diseases Unit, Great Ormond Street Hospital, Great Ormond Street, London, UK

J Wolfenden, M Josen, P E F Daubeney, E A Shinebourne, Department of Paediatric Cardiology, Royal Brompton Hospital, Sydney Street, London, UK

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IMAGES IN CARDIOLOGY

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Thrombotic obliteration of the right ventricular cavity

A 54 year old woman presented with intermittent dull central chest pain, which occurred at rest and was not exacerbated by exertion. She also complained of shortness of breath and reduction of her exercise tolerance to a few yards only over the previous four weeks. She smoked 15 cigarettes per day and drank alcohol only occasionally. She was not hypertensive or diabetic. Physical examination showed that her vital signs were normal, jugular venous pressure was raised, heart sounds were normal and lung auscultation was unremarkable. Full blood count, creatinine, and troponin I were within normal range, erythrocyte sedimentation rate was 22 mm/h, C-reactive protein was 93 mg/l, and the autoimmune screen was negative. The ECG showed sinus rhythm with T wave inversion anteriorly, the chest radiograph showed mild cardiomegaly, and echocardiography showed a large space-occupying lesion involving most of the right ventricle with reduced right ventricular function. Right ventriculography showed that the right ventricle was completely obliterated by the mass, with only a slit-like opening connecting the right ventricle to the pulmonary artery (panel). Biopsy of the mass showed clots and thrombus only and no myocardial tissue. Subsequently, the patient's condition suddenly deteriorated and her blood pressure became unrecordable. Emergency cardiac surgery was performed and a large right ventricular thrombus, which was obliterating the ventricle, was removed. The patient made a good recovery.

Obliteration of the right ventricular cavity by thrombus. This right ventriculogram shows almost complete obliteration of the right ventricular cavity by the thrombus, leaving only a small channel between the right ventricle and pulmonary artery.

I A Bolad
A Mitchell
bolad@doctors.org.uk