

LETTERS TO THE EDITOR

Continuation of a case report

We previously reported on two male sibs with an unknown syndrome which included microcephaly, seizures, mental retardation, congenital heart disease, and skeletal abnormalities.¹ The subsequent clinical course and necropsy findings of one of the boys (sib 2) contribute substantial information to the original report.

At 15 months of age he had findings of a large atrial septal defect with significant left to right shunt and signs of congestive heart failure. At 22 months of age he was admitted to the hospital in status epilepticus of new onset for which no aetiology was determined. At 29 months of age he had new and striking findings of pulmonary artery hypertension not previously observed. Cardiac catheterisation showed marked pulmonary artery hypertension with markedly raised pulmonary vascular resistance (10 units/m²) and a small left to right atrial shunt. The ventricular, septal defect was closed. Oxygen breathing failed to reduce pulmonary vascular resistance. At 36 months of age he required oxygen up to 4 l/min because of increased tachypnoea, respiratory distress, and lack of energy. At 39 months of age he suddenly deteriorated and was dead on arrival in the emergency department of a local hospital.

Necropsy findings showed marked right ventricular hypertrophy and dilatation, dilatation and hypertrophy of the main pulmonary artery and its branches, and hypoplasia of the left atrium, left ventricle, and the entire aorta. There was a 2 cm atrial septal defect partially closed and no ventricular septal defect. The right ventricular wall thickness was 1.7 cm, the left ventricular wall thickness was 0.7 cm (normal). The aortic diameter was 0.9 cm at the root, 0.6 cm at the arch, and 0.5 cm at the descending thoracic

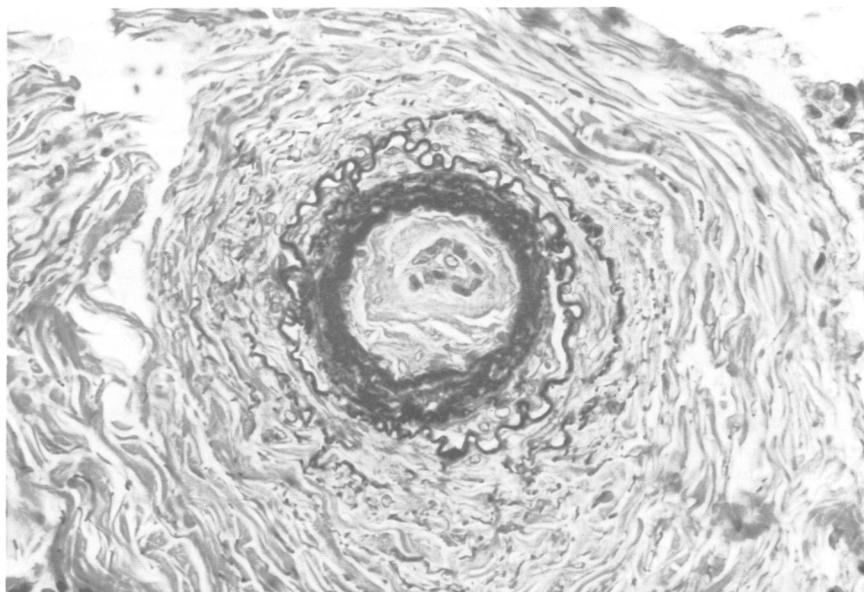


Figure 2 Small pulmonary artery; elastic lamina duplication and intimal thickening. (Elastic tissue stain.)

aorta while the diameter of the pulmonary artery was 1.5 cm. Histologically, there was diffuse intimal and medial proliferation of the pulmonary arterial walls severely constricting, and in some cases obliterating, the vascular lumina, compatible with an advanced degree of pulmonary vascular occlusive disease (figs 1 and 2).

The rate of progression and severity of this patient's pulmonary vascular occlusive disease in the absence of a large ventricular septal defect make us speculate whether this particular syndrome may include or predispose to advanced pulmonary vascular disease. The older brother has a small atrial septal defect but neither clinical nor echocardiographic evidence of pulmonary artery hypertension.

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1 Holmes GE, Schimke RN. Unknown syndrome in sibs: microcephaly, seizures, mental retardation, congenital heart disease, and skeletal abnormalities. *J Med Genet* 1989;26:665-6.

Absent fibula and craniosynostosis: a 25 year follow up

For many rare syndromes good information on the natural history is often lacking. It is essential to have this in order to provide accurate counselling. In 1972 I reported two brothers¹ with congenital absence of the fibula, craniosynostosis, cryptorchidism, and bilateral simian creases (McKusick No 21855). Recently I had the opportunity to re-examine the proband who is now 25 years of age.

He had had bilateral craniectomies for the coronal craniosynostosis, multiple operations for strabismus, repair of a right inguinal hernia, placement of tubes in the nasolacrimal ducts which were stenosed, and an abnormal exploration for undescended testes. At laparotomy bilateral intra-abdominal testes were found at the lower poles of the kidneys. There was no anatomical way of placing the testes in the scrotum.

Secondary sexual characteristics first developed at 14 years and he began to shave regularly at 16 years. At present he shaves daily and has a fully masculine phenotype with male pubic hair distribution and normal penile size. The empty scrotum is normally pigmented. The plan now is to remove the intra-abdominal testes, place prostheses in the scrotum, and maintain him on testosterone therapy. A recent serum testosterone level was normal (22.7 nmol/l). He has had two operations to improve his deformed feet.

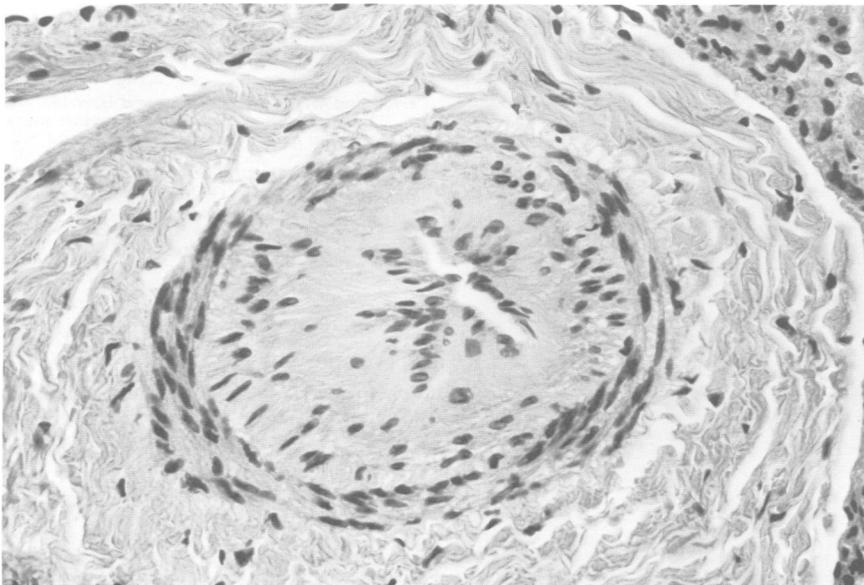


Figure 1 Small pulmonary artery; medial hypertrophy and intimal thickening almost obliterating the lumen. (H and E stain.)