Renal Bruit Due to Aberrant Renal Vessels

Renal bruit is a clinical sign suggestive of renal artery stenosis though it has also been described with arteriovenous malformations. We report, for the first time, a patient with a renal bruit presumably due to normal sized but aberrant renal vessels supplying an ectopic kidney.

A 7-year-old girl presented with puffiness of face and swelling of feet of 6 days duration. There was no oliguria, hematuria or skin infection. The child was of appropriate weight and height for the age. The blood pressure was 150/120 mm Hg in upper limbs and 160/120 mm Hg in lower limbs. There was puffiness of the face, edema feet and an abdominal bruit over the lower abdomen 2.5 cm below the umbilicus. Rest of the systemic examination was within normal limits.

The urine examination showed a proteinuria of 3.9 g/day with occasional leucocytes and epithelial cells. Urine culture grew 10^3 colonies of *E. coli/ml.* The blood levels of urea, creatinine, ASO, c-reactive protein and C_3 were normal. The level of serum albumin was 2.9 g/dl. The electrocardiogram and X-ray of the chest were normal.

The patient was treated with frusemide and hydralazine. The patient's proteinuria progressively decreased so as to disappear by day 5. Withdrawal of anti-hypertensives was thereafter carried out successfully. The patient was diagnosed to have spontaneously resolving nephrotic syndrome. However, persistence of bruit in the presence of improvement of clinical condition warranted further investigations.

Ultrasonography of abdomen showed a normal right kidney with a horizontally placed left kidney over midlumbar spine region which was fused with the lower pole of the right kidney *(Fig. 1)*. The positioning of the kidneys was confirmed on an intravenous urography which also showed that both the kidneys were functioning normally. Digital substraction angiographic study (DSA) for abdominal aorta and renal arteries was performed. It showed that the malpositioned kidney was supplied by an aberrant vessel from the abdominal aorta and by another vessel arising from the bifurcation of the aorta. None of the arteries showed stenosis or any irregularities in their calibre *(Fig. 2)*. The patient was closely monitored for one year during which the patient remained asymptomatic and hypertension was never detected. The abdominal bruit has however persisted.

Ectopic kidney is not an uncommon anomaly being seen in 0.1% population^). But it usually does not give rise to any symptoms. If it does give rise to manifestations, they develop during the 3rd decade and include vague low abdominal pain, hematuria, urinary tract infection, abdominal mass and hypertension(2,3). No case of ectopia has been reported to have an abdominal bruit. Our case was atypical in its early presentation of symptoms and presence of persistent renal bruit. This case is reported to draw attention to the fact that normal calibre aberrant vessels can give

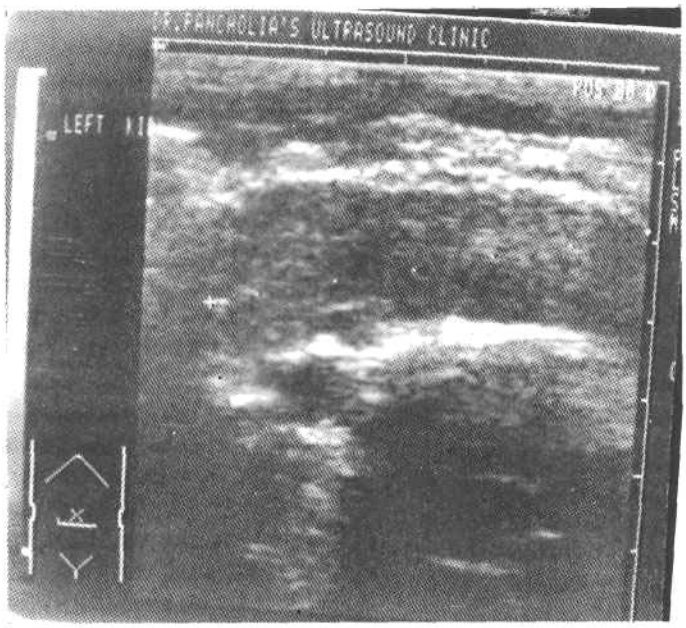

Fig. 1. Ultrasound abdomen showing ectopic kidney.

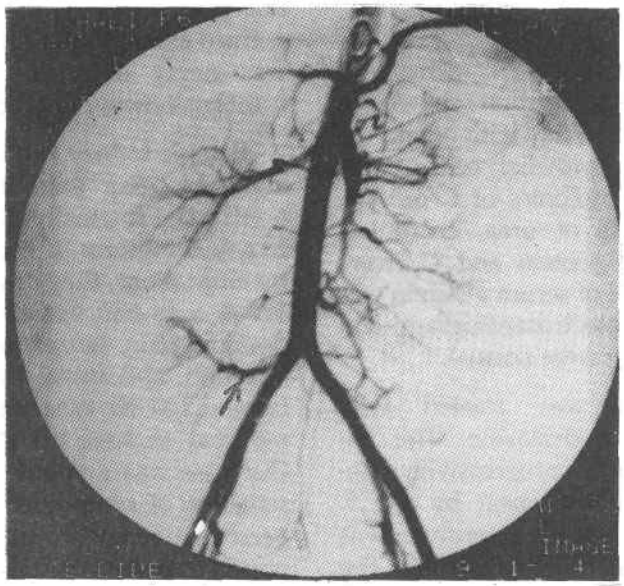

Fig. 2. Digital substraction angiography showing aberrent renal vessels.

rise to bruit probably due to turbulent flow.

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Dandy Walker Malformation: A Cause of Developmental Retardation

Delayed motor development is a common symptom in infancy. Dandy Walker malformation is a developmental anomalies of IV ventricle and cerebellum and occurs in approximately 1 in 30,000 live births. There is paucity of literature on this malformation in India(l,2).

A $1^{1/2}$-year-old boy was admitted with history of not growing well since 1 year. He was born to a nonconsanguinous marriage at full term with birth weight of 2.8 kg. Antenatal, natal and immediate postnatal history was uneventful. The child was emaciated, weight being 50% of expected, head circumference 46 cm, and length 75 cm. Head was dolicocephalic with fontanelle 2x2 cm and pulsatile. Ears were low set, palate high arched and pectus excavatum present. The posterior portion of the head was abnormally enlarged and there was pronounced shelf in occipital area. CNS examination revealed developmental quotient of 3 months, poor response to sound, nystagmus present with searching eye movements. Examination of fundus revealed retinal hypoplasia. Pyramidal signs were present. Lateral view of skull showed large posterior fossa. CT scan head showed absence of vermis, hypoplastic lateral lobes of cerebellum and cystic dilatition of IV ventricle which communicated with spinal canal. The III and lateral ventricles were normal. These findings were characteristic of