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Congenitally Fused Kidney Mal-Positioned In the Sacral Region

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Introduction

Normally the anatomical position of kidneys is at the level of T12-L3 vertebrae in relation to spine. It is supplied by renal artery which is a branch of abdominal aorta.

Report

Recently we came across a case in which congenital ectopic pelvic kidneys with lower poles fused and empty renal fossa was accidently found. The patient Mr X, age 18 years, male, resident of university hostel, consulted nephrology unit for occasional boring pain on the right flank of abdomen. The pain migrated to the back and at times the patient felt difficulty in bending. On examination no abnormality was detected in blood, urine and stool. The investigation was brought to next higher level and IVP was done. The IVP showed the kidneys were mal-positioned in the pelvic region, lower poles of both the kidneys were fused which were congenital (Fig 1, 2 & 3 after IVP).

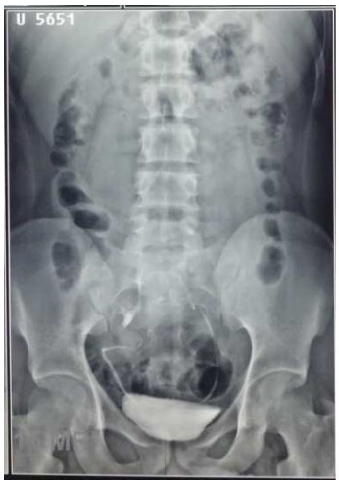

Fig. 1

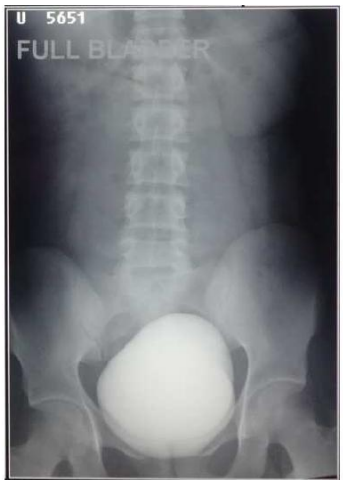

Fig. 2

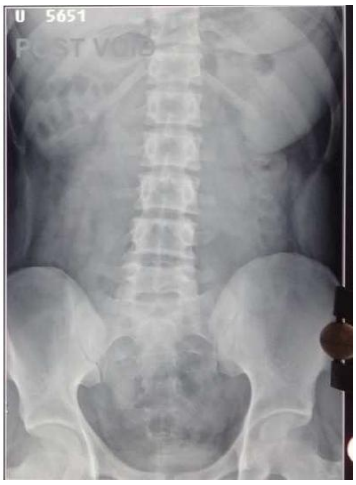

Fig. 3

Fig 1: Bilateral empty renal fossae with two pelvic kidneys fused in lower pole overlying the sacrum at the level of lower border of S1.

Fig 2: The urinary bladder is completely filled by dye (Omnipaque). The kidneys are completely covered behind the bladder.

Fig 3: Once the bladder is voided of the dye the kidneys are visible once again

The patient didn't know about this condition because he never consulted the doctor for pain. This time the pain got worsened and was followed by the projectile vomiting. He thus came to medical college for consultation.

Discussion

The search for the diagnosis revealed the congenitally fused ectopic pelvic kidneys placed in the sacral region. This is a rare anomaly and search for literature revealed the following:

A. Incidence: around 1 out of 1000 births[1]
B. Sex: Male predominance with a 2:1 male to female ratio[1]
C. Marital addiction to alcohol/ drugs: Increased risk of fetal renal agenesis or dysgenesis was observed in mothers addicted to alcohol, smoking etc[2. 3, 4]
D. Gestational trauma: Trauma during pregnancy led to renal defect[5]
E. Family history[6]
F. Chromosomal aberration[7]
G. Life expectancy is reduced[8]
H. Whether surgical separation of fused kidney possible or not?[9]

The authors feel that this case report deserves to be published for wide readership. Tremendous intrauterine corrective surgery has advanced and therefore, the need is to work out modality in which the kidneys can be brought to its original position through corrective maneuver needs to be studied. Many incidences of intrauterine corrective surgery have been reported like in tetralogy of fallot.

His recuperation was unremarkable. He was advised repeated follow-up every after 3 months.

Such patients may have delayed complications such as nephrolithiasis, infection, hydronephrosis – 50% of cases [10]

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Ethical Clearance: Not required.

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