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A CASE OF MALPOSITIONED AND MALDEVELOPED KIDNEY

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Among the congenital anomalies of the kidney a misplaced kidney is a well-known entity. The following case, diagnosed postoperatively, may be of interest, justifying its publication.

CASE HISTORY: A Hindu boy 23 years of age attended this hospital as an outpatient on November 9, 1947, complaining of loss of weight, strength, and appetite; indigestion; and frequent attacks of loose motions numbering sometimes 4 or 5 a day, accompanied with slight griping pain and mucus. This had been going on for about five months. There was no definite history of dysentery. Examination revealed a weakly built, poorly nourished, and slightly emaciated body. Nothing abnormal in the ear, nose, and throat, excepting a red, beefy tongue, typical of vitamin B deficiency. Chest was negative both on physical and radiological examinations. Abdomen showed a small lump the size of a duck's egg in the right iliac fossa, rather fixed and tender. The consistency was firm, although occasionally borborygmus could be heard, and gas could be displaced by pressure over the caecum. Rectal and genito-urinary system negative. Pathological examination results were as follows:

Urine: Negative in every respect repeatedly, except once when it showed a few pus cells.

Stools: Repeated tests for two weeks after saline washes of the lower colon were negative but showed once hookworm and once occasional pus cells.

Blood: Hb. 70%, R.B.C. 3,990,000, W.B.C. 7,100. Diff: polys 61%, monos 38%, eosinophils 1%.

Genito-urinary radiography not done. Barium meal X-rays not taken.

A diagnosis of possible iliocaecal tuberculosis with beriberi was made, and palliative treatment with cod-liver oil and malt, calcium both orally and intravenously, vitamin B by injection as well as by mouth, and liver injections were instituted, as the patient was hesitant to come as an inpatient. This was continued for about two months, with very little improvement. Ultimately patient consented to be admitted for any surgical procedure, and was hospitalized on January 5, 1948. Palliative treatment continued another two weeks and then he was posted for surgery.

Operation: On January 19, 1948, under general anesthesia (open ether) through a right para median incision. Abdomen opened up. Caecum was found rather extramobile but with no abnormality. The terminal two feet of the ileum was undernourished, but no tubercles were seen. Appendix was kinked at its base because of the adhesion of the mesoappendix but otherwise looked healthy. A firm, rounded, and fairly mobile mass was felt retroperitoneally along the right side of the 4th and 5th lumbar vertebrae. It was thought to be a retroperitoneal glandular mass, and the posterior peritoneum was opened up. Malposition of the right kidney was suspected, but the right kidney was localized in the normal situation; hence enucleation of the mass was resorted to. After the blood vessels had been divided and the lobulated mass entered at four places, a thick structure on the lower side was identified, which turned out to be the pelvis and the ureter. It was too late to save the organ, and consequently the whole kidney was excised. On thorough examination of the abdomen the left kidney was found missing. Posterior peritoneal incision was closed, appendix removed, and the abdomen was closed in the usual way.

Macroscopical appearance: A bipartite kidney flattened on the A.P. so that the pelvis and ureter (A in diagram) emerged from the anterior surface instead of at the medial border. Indentations due to the pressure of the vertebral spine were present posteromedially. It was 9cm x 5cm x 2¼cm in dimensions with the blood vessels entering the substance at 4 places. The main pedicle arising from the right common iliac vessels was of a smaller caliber and entered kidney through the furrow of the dividing lobes (B in diagram). Two blood vessels entered at the upper pole (C and D) and one at the convex border (E), as depicted in the sketches. The pelvis of the kidney looked small and degenerated, evidently with impaired function. The calices were not examined with the idea of preserving the specimen.

Result: Patient made an uneventful recovery. The localized constant tenderness in the right iliac fossa disappeared. He has put on weight and has no complaint so far during the revisits to the clinic.

Discussion: 1. A case of congenitally misplaced and maldeveloped kidney is described.

2. The abnormal features were:
   a. Absence of kidney on the left side.
   b. The blood supply of the kidney arising from right common iliac vessels in four different branches.
   c. The original left kidney lying along the right

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side of the vertebral column, the lower pole reaching as far as the promontory of the sacrum.

d. The persistent fetal lobulation.

e. Compensatory hypertrophy of the right kidney.

3. The diagnosis was made only postoperatively, as no urinary symptoms were evidenced to cause any suspicion.

I am indebted to J. B. Oliver, M.D., superintendent of the hospital, for his permission to publish this case, for his assistance at the operation, and for taking photographs of the kidney, and to Miss M. Bradley, R.N., for making the sketches of the specimen.

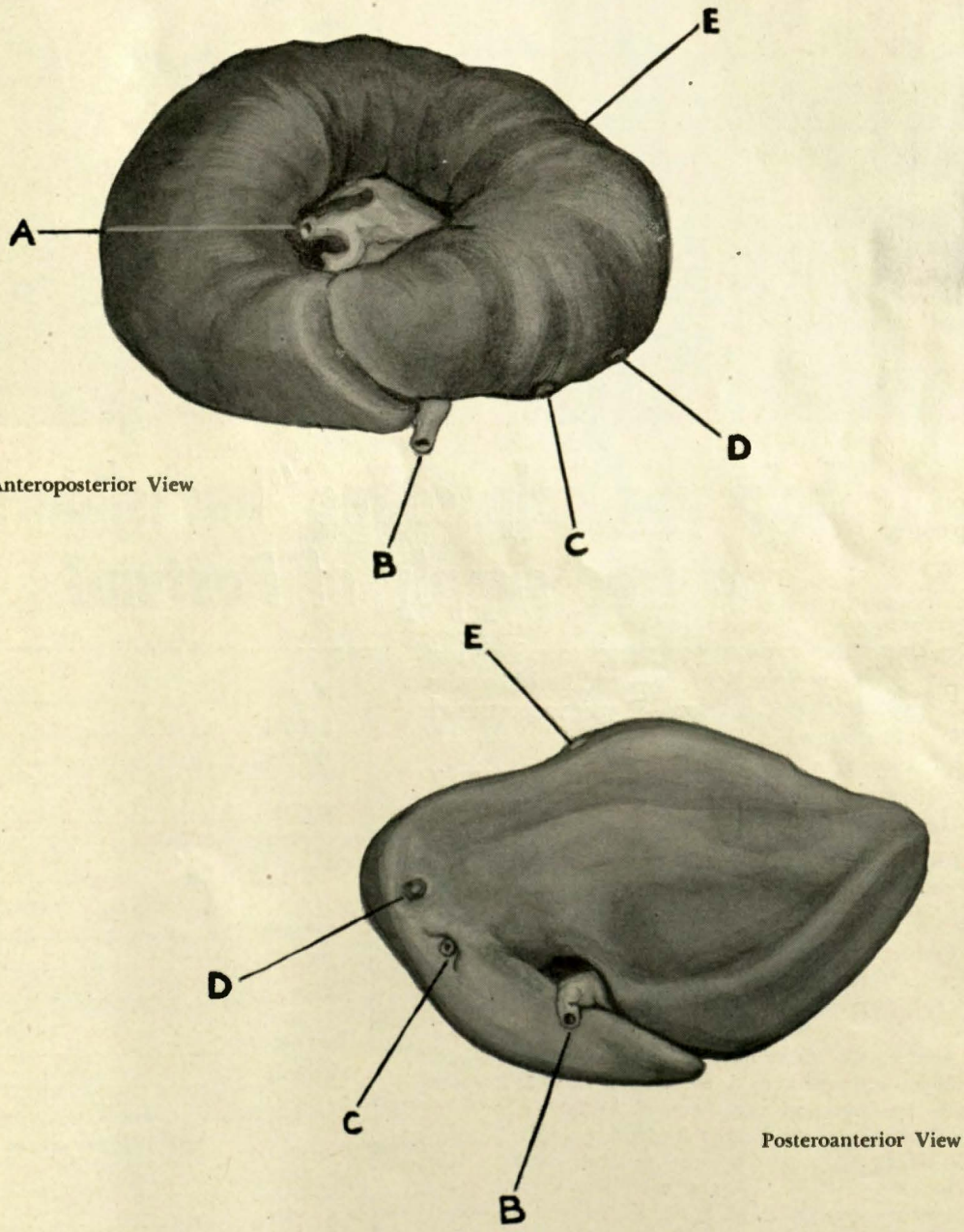

Fig. 1.—Kidney. A, pelvis and ureter; B, main vascular pedicle; C, D, and E, accessory blood vessels.