Research Article

A RARE CASE REPORT OF CROSS FUSED ECTOPIA WITH CYSTIC DYSPLASIA OF LEFT KIDNEY

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ABSTRACT
Presenting a rare case of cross fused ectopic with cystic dysplasia in an infant in which renal ectopia implies that the kidney lies outside the renal fossa and cystic dysplasia of the crossed (ectopic) kidney. Diagnosis was made using antenatal ultrasound, CECT. The diagnosis was confirmed with biopsy.

INTRODUCTION
Crossed renal ectopia is the second most common fusion anomaly of the kidney after horse-shoe kidney. In 90% of patients, the crossed kidney fuses with the normal kidney. Cystic dysplasia of the crossed (ectopic) kidney is relatively rare. Only a few isolated cases of crossed fused ectopia with cystic dysplastic ectopic kidney have been reported. Though this is an unusual combination of rare renal anomalies, the radiological features are characteristic enough to allow preoperative diagnosis.1

Kidneys begin to develop at four-week gestation by the union of the ureteric bud with the meta nephric blastema at the level of the first or second sacral segment and gradually ascend to the renal fossa during embryogenesis. Renal ectopia implies that the kidney lies outside the renal fossa.2

MATERIALS AND METHODS
Antenatal ultrasound was done initially. Then CECT abdomen pelvis was done using 16 slice MDCT Toshiba activion.

DISCUSSION
2 months old male baby came to OPD in Bapuji Hospital, Davangere with the complaints of recurrent urinary tract infection since birth.

Antenatal Ultrasound at 27 weeks of mother showed: A well defined clear cystic lesion measuring 4 (CC) x 3.9 (AP) x 3.5 (T) cms is seen in the foetal lower abdomen separately from the bladder

Left kidney was not visualised.
Right kidney was normal.

CECT Scan of the Abdomen And Pelvis
Serial trans axial scans were performed starting from the domes of diaphragm upto the ischio rectal fossa employing 3mm sections.

NCCT Axial, coronal and CECT Axial, coronal and sagittal sections of abdomen

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Findings

Well defined hypodense cystic retroperitoneal mass lesion measuring 6.7(CC)x5(AP)x5.1(T) cms noted in right anterior para renal space which is showing wall enhancement in post contrast study. No evidence of calcifications/septations/solid components/haemorrhage/necrosis.

Extensions

1. Superiorly: extending up till inferior border of right lobe of liver
2. Inferiorly: extending up till right supero lateral aspect of bladder
3. Laterally: lesion is displacing and compressing kidney postero laterally with maintain of fat planes.
4. Medially: not crossing midline but pushing bowel loops to left.
5. Posteriorly: lesion is displacing the right renal vessels and inferior vena cava posteriorly

Kidneys & adrenals

- Left kidney and left suprarenal gland not visualised, rudimentary of left renal artery noted.
- Right kidney measures 4.8x1.8 cms

Intraoperative Findings

Inside of the cyst calyces are seen and there was no communication with bladder.

First picture showing cystic lesion

Second and third pictures showing calyces Inside the cyst
CONCLUSION
In conclusion, Cystic dysplasia in an ectopic kidney should be suspected when antenatal USG shows a cystic mass associated with a kidney and the absence of a contralateral kidney. The diagnosis can be made accurately with radiological features in most cases. Mild and asymptomatic cases are followed conservatively with serial USG and those with severe disease are managed surgically.

References
2. Associated anomalies and clinical outcome in children with ectopic kidney

On histopathological correlation
Grey white to grey brown cystic soft tissue mass was cut and sent for biopsy.

Section studied shows fibrocollagenous wall with focal areas showing renal tissue comprising of glomeruli and tubules.