Horseshoe kidney with right moiety pelviureteric junction obstruction

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Horseshoe kidney is the most common fusion anomaly of the kidney. A 10 year old male child presented with pain and lump in right lower abdomen for 2 years. Ultrasound and contrast enhanced computed tomography (CECT) of abdomen found to have horseshoe kidney with right moiety hydronephrosis. Renal dynamic scan showed 25% differential function with pelviureteric junction obstruction (PUJO) of the right moiety. Anderson-Hynes pyeloplasty with isthmotomy and lateropexy was done.

The most common associated finding in horseshoe kidney is PUJO. The PUJO is probably secondary to the high insertion of the ureters into the renal pelvis. The upper ureters diverge laterally over the isthmus and then converge inferiorly. CECT is the method of choice for the assessment allowing for evaluation of potential complications. On the CECT, the isthmus may be seen to cross the midline and the presence of enhancing tissue distinguishes functional isthmus tissue from fibrous tissue (Fig. 1). When surgery or radiological intervention is planned, CT may be invaluable in assessing cortical thickness of the obstructed horseshoe kidney as well as relevant anatomy.

References