

1. Excretory: 3. Horse shoe kidney (HSK)

- Specimen of a lower pole attached horse shoe kidney.
- Right kidney on the top and left kidney on the bottom.

General description

- Horse shoe kidney (HSK) is a common fusion anomaly of kidneys.
- It occurs in a frequency of 1:500 individuals.
- Most common anomaly found in males than females.
- The first described abnormalities regarding HSK were position, rotation and vascular supply of the kidney.
- Fusion of the lower poles are more common.
- Generally, this fusion occurs at 4 to 6 weeks of gestational period.
- Atypical migration of nephrogenic cells, usage of teratogenic drugs, alcohol, abnormal position of the fetus is the etiology for horse shoe kidney.
- Several chromosomal abnormalities associated with horse shoe kidney like Turner's, Down's, Edward's syndrome etc.
- Fusion of the lower poles obstruct the medial rotation of the renal parenchyma and restrict the kidneys in the pelvic region which expose to sustain blunt abdominal trauma.
- Renal trauma is the third common blunt abdominal trauma after spleen and liver injuries.
- Among all the blunt force occurred to the body, kidney trauma accounts for 8-10%.
- Almost 94% of renal trauma results due to Road Traffic Accident (RTA) & sporting activities in a normal positioned kidney.
- congenitally deformed kidneys are more vulnerable to trivial trauma when compared to normal kidneys.
- After any injury to the parenchyma of the kidney patient will be present with flank pain, hematuria & hemorrhagic shock.
- Even though the horseshoe kidney is a congenital occurrence the individual will stay asymptomatic in his lifetime, complications like pelvic ureteric obstruction, renal stones, infection, hydronephrosis, malignancies and loss of renal function can be encountered.
- Patient presented with these findings will be incidentally identified to have a HSK.

