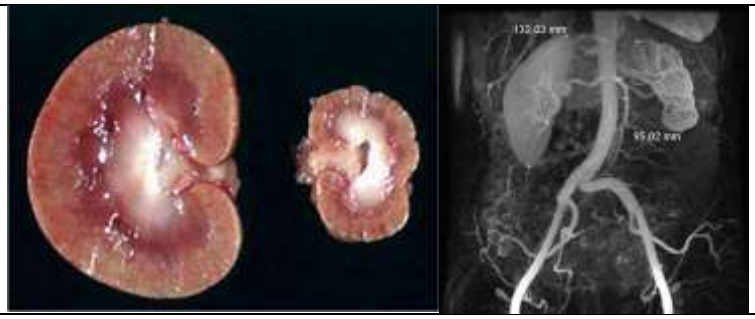
XIX. Diseases of the Urinary System

Hypoplasia

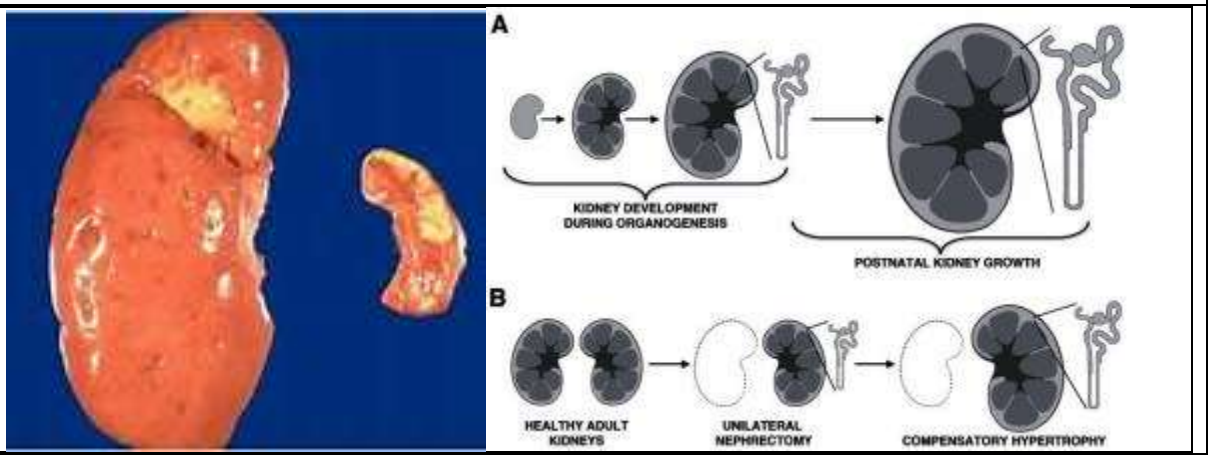
Kidney:

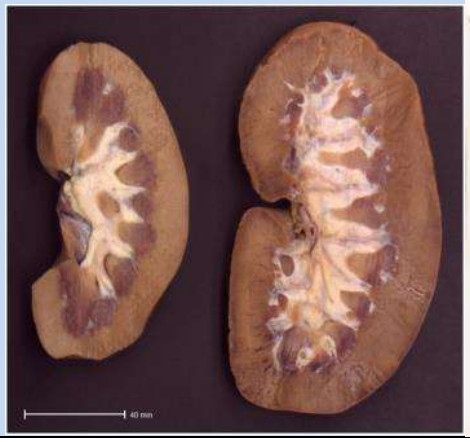
- Is small in size
- With smooth external surface
- No evidence of scarring
- No change in the blood vessels



N.B.I:

- ***This miniature-kidney"*** was removed from an adult person who died from an extrarenal disease. The other kidney did not show gross changes beyond some slight compensatory hypertrophy. Whereas the Hypoplastic kidney weighed 95 g., the hypertrophied kidney weighed 160 g.
- This condition has to be differentiated from the various conditions which lead to atrophy of kidney or diminution in its size or/and weight:
    1. Loss of blood supply or/and old age.
    2. Arteriosclerosis → senile contracted kidney.
    3. Arteriolosclerosis → primary contracted kidney.
    4. Chronic diffuse glomerulonephritis → secondary contracted kidney.
    5. Pressure atrophy (late stages of amyloid disease), and atrophy of the kidney-tissue proper in hydronephrosis.
    1.



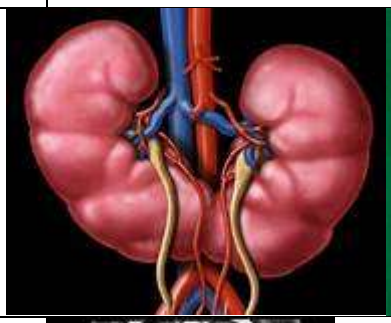
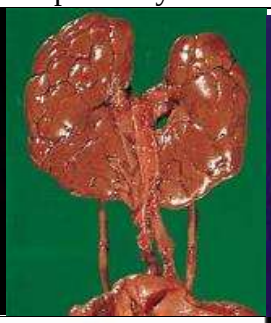


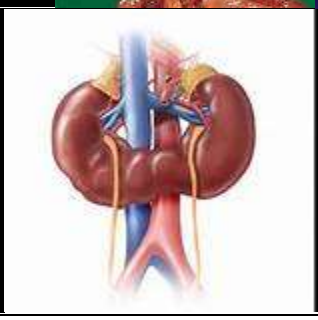

On the other hand,

- ***Hypertrophy of the kidney may*** be seen in the following conditions:
    2. In Removal of one kidney, the other => compensatory enlargement.
    3. Congenital absence of one kidney - > increase in size and weight of the other kidney.
    4. Hypoplasia of one kidney.

Patchy between areas of arteriosclerotic atrophy (the lining cells of convoluted tubules become larger, the lumen is dilated and papillary growths may project into the lumen).

Kidneys:	• Are fused together at lower poles • Show persistence of some foetal lobulations
Ureters:	• Pass anterior to the renal parenchyma


N.B.:

- This is a rather common congenital abnormality where the nephrogenic masses on either side fuse together.
- It occurs in the lower poles in 10% of cases.
- The renal function is usually not much affected.
- It is important from the surgical point of view.
- **There is a liability to superimposed**
    - Tuberculosis,
    - Infection and
    - Malignancy; and,
    - More liability to the formation of renal calculi (favoured by the stasis produced by ureter-angulation).