Photomicrographs

of Sections from Infarcts of the Kidney.

Duncan Forbes
The renal vessels and the surrounding tissue at the usual site of ligature. Many small vessels are seen in the fatty tissue. These are important sources of supply after ligature of the renal artery. Many of them are injured during the operation.

x 12 diam
3½ hours' ligation of the rabbit's left renal artery.

A peculiar fragmented appearance of the cells of
the subcapsular tubules is present.

x100. Diann.
The same under a higher power.

In the affected tubules the cell nuclei are seen deeply. The
eosin-staining part of the protoplasm is collected at the
attached margin and in the part of the cell near the lumen.
The nuclei lie in unstained spaces.

Jointly stained discs are present in the lumens of
the collecting tubules.  

x 250 diam
An oblique section of the medulla of the pons. Groups of congested straight vessels are seen. Those have been described as regularly arranged haemorrhages. x100 diam.
Section from the 25½ hours' ligature of a rabbit's left renal artery.

Going from the capsule to the deeper parts there are:

1. the subcapsular leucocyte band
2. a narrow unnnourished part not so deeply stained
3. a deep cortical leucocyte band
4. a broad band in which the tubular cells have undergone coagulation necrosis
5. a zone next medulla in which the cells of the tubules are pale

X50 diam.
Section from the 2 hours' ligature of the rabbit's left renal artery.

The lumens of the collecting tubules are empty. Those of the other tubules are filled with debris. There is similar debris, within Bowman's capsule, derived from the tubules.

No urine is secreted after ligature. X 60 diam.
Section from the 24 hours' ligature of the rabbit's left renal artery.

The deep leucocyte band, separating the nourished (1) from the un-nourished part of the cortex, is clearly visible. The large trunks are crowded with red corpuscles in (2); these are un-stained although present in (1).

x 56 diam.
The large ligature of the rabbit's left renal artery (cortex)

The superficial leukocyte band has sunk deeper into the cortex.

(1) is opposite tissue through which it has passed.

(2) is the unenriched part. The nuclei of all its cells are well stained.

The leukocyte band is denser and broader along the line of large vessels than around Bowman's capsule in the medullary rays.

X 150 diam
Section from the 24 hours' ligation of the rabbit's left renal artery.

The cells composing the subcapsular leukocyte band are seen.

1. Many are polymorphonuclear leukocytes.
2. They lie between not in the tubules.

x 500 diam.
Section from a rabbit's kidney which was cut from its connections and was left free in the peritoneal cavity for 20 days.

1. Organizing elements opposite adhesions
2. A tough ring
3. A dense connective tissue

X 70 diam.
Section from the 5 hours' ligature of the right renal artery, vein.

The corporacles are seen in the cells of collecting tubules in the medulla.

Angiokeratotic lie between the tubules. x 300 diam.
Section from the 3-hour ligature of the rabbit's renal artery shown.

Red corpuscles are present in the cells

of the tubules in cells on the AA in neat near B and in other parts.

× 300 diam.
Section from the same

Similarly-plaisted masses are found in the suprarenal space and in the lumens of the collecting tubules. These have not the same size nor do they take the same tint with eosin which red corpuscles have and do. They are probably red corpuscles altered during their passage through epithelial cells.

x 300 diam.
3 months' ligature of the pubis to left renal artery and vein.

The portion shows the best nourished part of the cortex.

Subcortically there is a marked fatty change in the tubular cells (arrow).

Deeper than this the absorbed tubular cells also show fatty changes.

Two relaid patches are present near the capsule, on deeper.