Photomicrographs

of sections from Infarcts of the Kidney.

Duncan Forbes.
2 hours' infarct in the dog's kidney

Debris from a tubule is seen entering Bowman's capsule.

The space around the tuft is empty at other parts.

In later sections many of the glomerular spaces are quite filled with this material.

x 300 diam.
Section from the 14 hours infant of the dog's kidney.

Many cells are seen in the space around the tuft.

These are continuous with the cells of the tubules. They originally lined the tubule, they were detached and pushed into the periglomerular space.  x 200 dia.m.
28 hours' infarct of the dog's kidney.

As in the last phenomenon many tubular cells are found within Bowman's capsule. They have pressed against the tuft and have been moulded by it.  

x 500 diam.
36 hours' ligature of the rabbit's left renal artery.

The same change is seen. It occurs in what corresponds to the central part of an infarct.  

× 210 diam.
48 hours’ ligature of the rabbit’s left renal artery.

Secretory cells nearly fill the spaces usually occupied by the glomerulus. The tuft is small and is seen on the right.

A moderate degeneration of nuclei is seen in the collecting tubules.

X 300 diam.
45 hours' infarct of the dog's kidney.

The periglomerular space is filled by what has been mistaken for an exudate from the tuft. This substance persists exactly in a similar manner to the tubule cells. Distant nuclei are seen in it which are not derived from the multinucleated tufts which are numerous in the capillaries of the tuft.

The substance is altered tubule cells. x 200 diam.
4 days' ligature of the rabbit's left renal artery.

The denudation and cells derived from the tubules are being organised in the juxtaglomerular space by cells covering the tuft and lining Bowman's capsule. The nuclei of the cells of the tuft are open in number and its structure is lost.
9 hours' ligation of a branch of the dog's left penal artery.

Just thickening of the capillary walls in a glomerulus is present.

The white cells are granular and have lost their nuclei.

x 300 diam.
22 Hours: Ligature of the pubic-left penial artery.

Bowman's capsule is adherent to the wall and arches over the glomerular space.

Large usually unstriated masses project from the tubule cells into the lumens.  X 100 diam.
43/2 hours ligature of the rabbit's left renal artery.

Types of degeneration found in what corresponds to the bounding layer of an infarct.

Congulation necrosis

1. Periureal tubules of Schmalzle
2. convoluted tubules
3. collecting tubules.

Faintly stained foci from
1. continuation into centre of avascular part of renal loops.
2. many convoluted tubules.
5 days: Ligation of a branch of the rabbit's left renal artery.

2) On the right is comparatively healthy tissue.

2) On the left, the tubule cells (nuclei collecting tubule) are affected by coagulation necrosis.

The intertubular cells appear well.

5 Diagonally between 6 (2) the tubule cells have wide lumina or none at all.

x 170 drawn
14 days' ligature of the rabbit's left renal artery.

The section shows the subcapsular area. The cells of all tubules have degenerated excepting those of the collecting and functional tubules. The cells of the latter are flattened and circular and surround wide lumina. 1:200 diam.
14 days' ligature of a branch of the rabbit's left renal artery.

The infarct is markedly depressed. It contains a calcified area.

The margin of the infarct contains wide lumened tubules next the healthy tissue.

The adjacent part of the kidney is congested. X 95 diam.
100 hours' infarct in the dog's kidney.

The earliest stage of calcification is seen.

It begins in the tubule cells as small deeply stained "rods."

× 300 diam.
42 days' ligation of the rabbit's left renal artery.

Atrophy is advanced in the superficial half of the cortex.

The deeper part is atrophied. There are very large periglomerular spaces.

x 60 diam.
22 hours' ligature of a branch of the left renal artery.

The chromatia of the nuclei of the cells of the velo-
tubules and of the intertubular cells is attenuated and for-
teger or smaller masses which frequently lie free from
the cells.

V. F. Hox.
46 hours infarct of the dog's kidney.

Larger and smaller round masses of structureless chromatin are found in the intertubular phase.

x 300 born.