

sule has quite a little fibrous tissue lying in it, whilst it is very cellular.

It is stated that this newly formed capsule becomes more and more strongly developed until at the end of two months it is thicker than the original capsule, whilst at the end of 3½ months it is differentiated into two layers again. In the dogs on which we have operated the fact that the capsule is thus reproduced was demonstrated.

To Dr. T. D. Archibald of the University Pathological Department, I am indebted for the record of the post-mortem conditions found. In addition to this Dr. Archibald made the numerous analyses of the urine which are necessary, and described the histological changes in the dog's kidneys. To detail shortly the results of these experiments I may state as follows:

No. 1. In a dog killed 24 hours after capsulectomy the kidney was covered by a membranous structure resembling somewhat in gross appearance the normal kidney capsule, but it varied in thickness, in some places it was thin, bluish-white and glistening, in others more yellowish in colour and rougher. In places it appeared to be augmented in thickness by adherent peritoneum.

No. 2. A dog which died of sepsis four days after capsulectomy showed much the same gross appearances on the surface of the denuded kidney. There had been an abscess in the muscular wall of the back.

No. 3. A dog killed seven days after capsulectomy showed a well-marked capsule surrounding the kidney which had been operated on. The kidney was adherent to all surrounding structures.

No. 4. A dog killed 11 days after nephrotomy: The kidney had been split along its convex border and the incision carried through to the pelvis. The wound in the kidney substance had healed, but a scar was found along the convex border and this was adherent at one point (about its centre) to the right portion of the liver. On section a yellowish white scar was found penetrating the kidney substance to the pelvis with small hæmorrhagic areas on each side.

No. 5. A dog killed 13 days after capsulectomy. The kidney was adherent anteriorly to the liver and the diaphragm, whilst posteriorly it was adherent to the diaphragm and the transversalis muscles. A well-marked capsule surrounded the organ and blood vessels could be readily observed with the naked eye running in this adventitious covering.

No. 6. A dog killed 33 days after the operation of capsulectomy. The kidney was adherent to the right portion of the liver, to the right tube and ovary, and to the great omentum. A distinct capsule was present. It was yellow in colour and was very tough and stripped with diffi-