

place in regard to nerves. The same thing takes place in regard to certain ducts in the body. For instance, if you cut a ureter, instead of resorting to the method of telescoping one end into the other, if you simply take the cut ends of your ureter and suture it correctly and direct its attention to its fellow, they will grow together.

Coming to the function of the kidney. The tubuli of the kidney are drawn out about sixty miles in the loops of Henle. We get two different kinds of infection. We get hæmatogenous infection in which an infection of the blood is cast into the kidney. We see no pus or blood, perhaps only a little irritation, a little albumen in the urine. We used to be taught, for instance, that the kidney was prone to suppuration. This is not so. It was the old methods employed, and especially the use of silk, that caused the infection and suppuration.

We have, then, the two different forms, namely, the hæmatogenous form and the urinogenous form.

Then as to the pathology of the kidney. Take first the question of stones in the kidney, which are probably mostly hæmatogenous, that is, the infection that is carried on is through the excretion of certain bacteria, through the kidney and certain diathesis we get from the stone. The kidney is excreting bacteria. One will find a certain number of bacteria in healthy urine if searched for with sufficient care.

As to stone in the pelvis. In the matter of diagnosis the x-ray will of course be the most material. Then you have certain urinary findings, a little blood, a little pus. These cases have had pain, more or less, for a number of years. If you examine for obstruction of the bowels, one will get in these cases a condition like complete obstruction of the bowels. I have seen a number of cases that have been sent here to be operated upon for obstruction of the bowels. I have seen it in these cases more often than in gall stones or in anything else. There seems to be a peculiar similarity of condition between this and obstruction of the bowels. The difference is only apparent because the bowels will move. Then one would trust more to the x-ray, to the little drop of blood or urine under examination. One cannot tell certain cases of tuberculosis in this part of the kidney, for some reason, from cases of stone in the kidney. The symptoms are exactly alike. I have run across cases of localized tuberculosis, giving rise to exactly the same conditions. In an x-ray diagnosis of stone in the bladder, a great deal depends on the reading of the plate. A great many men can get a good picture, who cannot read a plate. It is an art. It seems to be something that is very difficult to acquire. When it comes to operating, I have to show up the number of stones indicated by the x-ray picture.