

original site, advancing only by slow degrees to the complete destruction of the kidney, but it must be remembered that these are often years of utter hopeless invalidism.

Sooner or later many of these patients show signs of the disease elsewhere, often in the lungs, and with an alarming frequency in the other kidney. This liability of the other kidney caused one eminent authority (Tuffier) to conclude that in these cases, at least, we observed an infection of the ascending variety from the bladder upwards, and this is likely so.

Almost more important than the actual technique of the operation is the preliminary investigation of the case. In the first place, the diagnosis is only sure when tubercle bacilli have been found in urine drawn directly from the bladder. In several instances cases with smegma bacilli in the urine have been sent to me for the purpose of having nephrectomy performed. In one case, the wife of a distinguished colleague, the State Bacteriologist had examined the urine and found tuberculosis, which fully accounted for the pain in her right side, associated with pyuria and hematuria. A most eminent authority in the use of the X-ray had further examined the patient and excluded calculus. When she came to me I was utterly unable to confirm the diagnosis of tuberculosis, and at a later date removed a calculus of the kidney with complete relief of the symptoms. A case in the hands of Dr. Guy L. Hunner, Skene's glands excessively distended with purulent secretions, were found loaded with smegma bacilli. Unfortunately, even catheterization of the bladder does not entirely obviate this source of error. In a case of a little girl, fourteen years of age, in which the whole interior of the bladder was ulcerated, the catheterized specimen of urine showed a few smegma bacilli on two different occasions.

The next step is a careful palpation of the lower end of the ureters through the vagina or through the rectum. In almost every case, especially where the disease is advanced, there is a decided thickening of the ureter, which feels to the palpating finger either like a whip cord or a string of beads being made up of a row of hard nodules. The diseased ureter is often very tender to pressure.

The cystoscopic examination often shows an area of inflammation or ulceration surrounding the ureteral orifice, and extending from this for a variable distance out over the bladder walls. When an ulcer is found in this site it is almost pathognomonic of tuberculosis of the kidney of that side. I would call attention also to one other point characteristic of the ureteral involvement, and that is that the ureteral orifice is often found