

night, associated with spasms of the bladder and such agonizing pain that she often spent hours in screaming with the pain, to the great distress of doctors and patients. She had a left renal tuberculosis which had run a course of fifteen years' duration with the stress entirely on the sensitive bladder.

In addition to the nepiro-ureterectomy the bladder was drained and she made a good recovery, and is to-day in excellent general health, although yet obliged to empty the bladder frequently. A valuable life has been saved and restored to comparative comfort, and there is not the slightest indication of any return of the disease.

Since that time, now nearly twelve years ago, I have had, in conjunction with my former assistants and present associates, Drs. Cullen and Hunner, forty-four cases of renal tuberculosis, and upon these I base the conclusions which are drawn in this communication.

It was Schmidlein, who in 1863, clearly distinguished between the ascending and descending forms of urinary tuberculosis.

The question thus raised has engaged the attention of clinicians ever since with the result that the number of those who hold to the theory of primary ascending tuberculosis of the urinary tract has steadily decreased, and in women, at least, I believe that it rarely occurs. The close association of the genito-urinary tract in men, and the entire disassociation in women, place this question upon an entirely different footing in the two sexes, so that even if we are justified in speaking of urogenital tuberculosis in the male, such an expression is erroneous in the female, if any direct casual relationship is implied (Amann, *Centralbl. f. Gyn.*, 1902, XXVI., 1194).

The view now held that the infection of the kidney is by the arterial system has been abundantly proven by experiment and clinical observation in early cases, as Cohnheim long since said, urogenital tuberculosis is a disease of excretion.

In a woman then, given a case of vesical tuberculosis, we have, with the rarest possible exception, but the one question to consider: the advance of the infection from renal cortex or papilla to pelvis, ureter and bladder. These rare exceptions include in my own experience a single doubtful case of vesical tuberculosis, in which there was no apparent renal involvement and another case in which the vesical involvement was in the right cornu vesicae, where there was a fistula communicating with a tuberculous uterine tube, and yet another (Katzen) in which after removing tuberculous pelvic organs and a large