

ureteral ends, the spurting of the urine and the intervals between them.

Halban observed tears in the ureteral opening after a ureteral stone had passed.

In tuberculosis of the kidney, the cystoscope often shows a tubercular process around the mouth of the ureter. If blood is seen to escape from one of the ureters, that will assist in making a diagnosis between vesical and renal hemorrhage.

Methylene-blue tinges the urine green, which can be recognized in the case of a normal kidney in fifteen to thirty minutes after taking the drug by the mouth. If we have to wait sixty minutes or longer before one ureter emits tinged urine, then we know there is disease on that side.—Ackard and Castaigne, 1897.

Voelcher and Joseph inject 16 centigrammes of indigo-carmin into the gluteal muscles, and in normal cases the urine is tinged purple in fifteen to thirty minutes. They state that this drug is excreted entirely by the kidneys and is harmless.

In his latest report (1904), Hofmeyer agrees with their views, and the advantages of chromo-cystoscopy are stated as follows:

1. Intensity of the color is seen to vary.
2. The ureteral whirl may be seen going down towards the base of bladder or upwards, indicating a difference in the specific gravity.
3. The opening of ureter may be covered with ulcerations and the only way to find the orifice is to watch for the colored spurt coming out.

The same authors give iodide of potassium by the mouth and fill the bladder with a weak solution of peroxide of hydrogen containing starch. The urinary spurt becomes bluish as soon as potassium iodide begins to be excreted. These tests aid us in determining whether the kidneys are functioning properly or not.

It is evident, however, that if the urine can be obtained separately from each kidney, without being contaminated by pathological elements coming from the ureters, bladder or urethra, diagnosis will be less difficult. There are two methods of accomplishing this, viz., ureteral catheterization and segregation. It is unnecessary at this time to discuss the instruments used for catheterization of ureters, their mode of sterilization, application, etc. Some prefer water dilation of the bladder, and others the air dilation. From my brief experience in the work,