

I prefer the water dilation, and the use of a Brenner, or a somewhat similar cystoscope with a lens system, permitting exact and direct images. No matter what instrument is used, all of us will fail at times to catheterize the ureters. Ureteral catheterization is becoming more popular, but at the same time requires much skill and patience. Very few, if any, authentic cases of infection of the ureters follow catheterization. The catheters may become plugged with blood, etc., preventing the collection of urine. Ureteral catheters spoil readily, making the method expensive.

Segregation has for its object the collecting of the urine from each kidney separately, without the use of ureteral catheterization. The principle of the segregator perfected by Neumann, Harris and Down is to raise the centre of the posterior wall of the bladder up, with the aid of an elevator in the rectum or vagina, and then draw off the urine with catheters, separately, from the divided parts.

Luts and Cathelin have designed an intravesical segregator, which divides the bladder into two halves by the use of a thin rubber membrane stretched over a spiral spring. Keen has used this kind with success.

Harris says: "After quite an extensive experience with the segregator, I can state that its intelligent use in suitable cases furnishes results which are reliable and gratifying. It should be used in connection with the cystoscope."

Segregation does not supplant entirely catheterization of the ureters, as there are cases in which the latter is more suitable, but that it does have a very useful field is certain. As many of the diseases of the kidneys require surgical operations for their cure, or even that one of the organs be sacrificed entirely, the necessity in the latter case of being able to estimate the functional capacity of the remaining organ became at once apparent, for upon this point depends the life or death of the patient.

Before the days of ureteral catheterization and the segregator, the determination of this point was practically beyond our power, unless we opened the peritoneum for digital examination of both kidneys; but now by an examination of the separate urines we are able to determine the amount of work done by each organ with almost mathematical precision. In order to do this it is necessary to take into consideration, when examining the urines, the time occupied in their collection, the amount collected from each side, the body weight of the patient, the diet and the amount of solids, such as urea, chlorides, etc. Some of the objections to segregation are: