

within out, coming out on one side of the incision. A similar suture is placed on the other side, and the ureter drawn into the bladder opening by traction on the stitch, and fixed there by tying. The only difference in my case was that I did not pass these silk stitches through the bladder mucosa, which I think a weak point in Van Hook's otherwise excellent method. In Baldy's case the proximal end of the ureter was too short to go to the bladder without too much tension on the sutures, so he brought the bladder over to that side of the pelvis by two stout catgut sutures. Kelly (*Johns Hopkins Bulletin*, Feb., 1895) gained an inch in his case by dissecting the bladder from the horizontal rami of the pubes and dropping it back into the pelvis.

Boldt (*Amer. Journ. Obstet.*, 1896, vol. xxxiii., p. 844) passed a ureteral catheter into the fistula before the operation, which I forgot to do until after I had begun, and thus found the ureter more easily; after cutting the ureter off he left the catheter in the proximal end, and passed it into the bladder through the opening and out through the urethra, thus running less risk of leakage if his incision had failed.

Fullerton ("Kelly's Operative Gynecology," vol. i., p. 463) severed a double ureter on right side. As soon as detected he closed the distal ends, and introduced both proximal ends into the same opening in the bladder, with good result.

Baumm, Witzell, Veit and Kelly have performed intra-peritoneal implantation into the bladder, and although they were all obliged, as I was, to open the peritoneum for a few minutes to find the ureter, I believe that with a little more experience we could complete the operation extra-peritoneally, thereby reducing the small death rate, Kelly having lost one case on the seventh day from sepsis.

2. My case is interesting because the injury to the ureter was caused by the delivery of a child. In the majority of cases it has resulted from difficult operations, mostly vaginal hysterectomies. Ferguson found that in sixty-five cases of ureteral fistula, twenty-five were due to parturition, in sixteen of which the forceps were employed. In twelve, vaginal hysterectomy was the cause, two by stone in the ureter and ulceration, three by abdominal section, one had a traumatic origin, two from pelvic abscess, one from a pessary, one from tubercular necrosis of the ureter, as in Krame's case.

3. It shows the value of urotropine in making the urine aseptic; my patient had a temperature of 103° a week before the operation, which may have been due to infection of the ureter, but if this was so, the urotropine apparently remedied it, for there was no temperature whatever after the operation.

4. Owing to the extensive bruising at the time of the confinement, and also owing to the four plastic operations, the