SUPRAPUBIC SPHINCTER TIGHTENING

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SINCE Kelly in 1913 described his operation of enfolding the vesical sphincter by the vaginal route for vesical incontinence, I have used it in properly selected cases with the utmost satisfaction. In some instances the operations were difficult, and in these the results

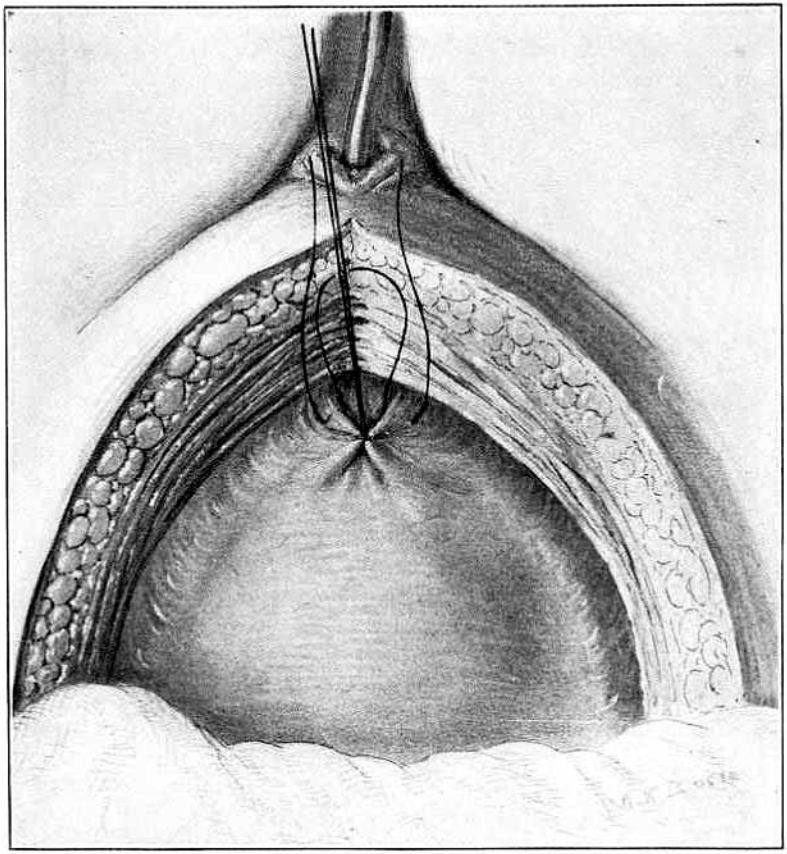

Fig. 1.—First suture placed just anterior to the flared portion of a Pezzer catheter that has been drawn taut against the internal urethral orifice. This may be placed as a single or as a mattress suture.

were not perfect. This set me thinking that there might be an easier and more satisfactory operation for the cases unsuited for the Kelly method.

In operations where I opened the bladder suprapubically, I was impressed by the fact that the sphincter was easily accessible, and that it might be narrowed from above just as easily as from below. I did not carry this into effect until after F. C. Holden told me he had operated upon one such case satisfactorily. In this instance he

enfolded the sphincter with catgut and packed gauze down to it with the idea of producing a large amount of scar tissue. Holden got his idea from Todd of Texas. In a search of the literature to June, 1924, I have been unable to find any reference to an operation similar to the one I am about to describe. The only one bearing any resemblance to it is that of Fritsch, who through a suprapubic incision exposed the urethra, excised a longitudinal strip down to the mucosa and narrowed the urethra by bringing the edges together.

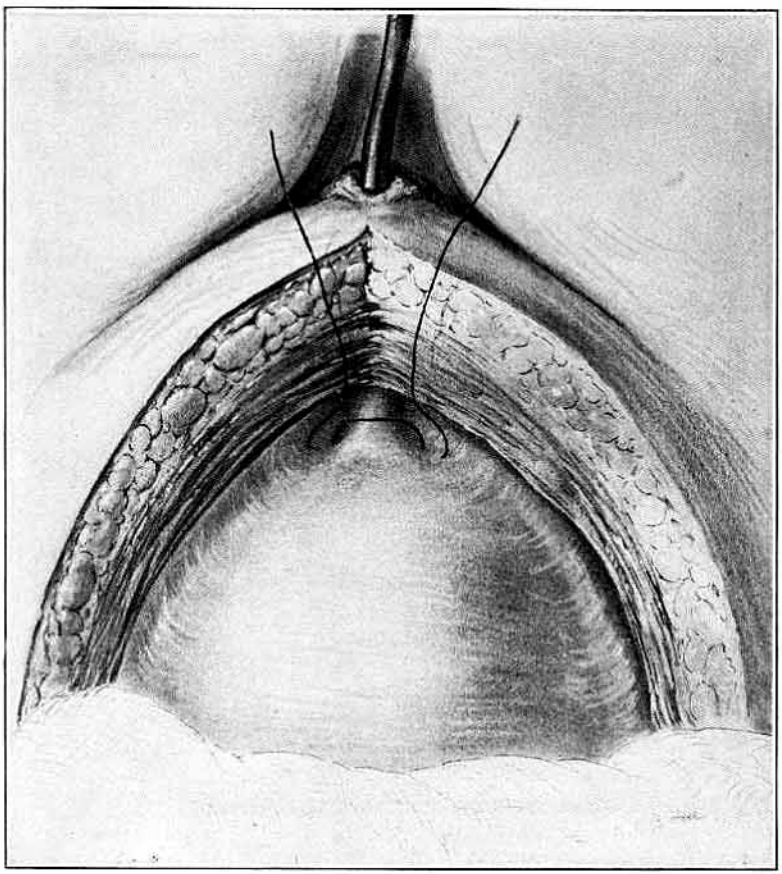

Fig. 2.—First suture has been tied. This puckers the tissues so that two folds in front and two behind it are made prominent and facilitates the introduction of the second suture. At times a third is placed in front of the second. If the relaxation is great a second tier of two or three is placed over the first row.

The operation as I do it consists in narrowing the urethra and the vesical sphincter through a median, extraperitoneal, suprapubic incision, extending from the symphysis to just below the umbilicus. After incising the fascia the exposure of the sphincter is made by blunt finger dissection. High Trendelenburg posture makes this much easier. A Pezzer catheter placed in the bladder and withdrawn until the flared portion comes against the sphincter, is a necessary guide to

the vesical outlet. This portion of the catheter is easily felt from above. With a rounded needle armed with No. 2, 20-day catgut, a suture is passed through a portion of the sphincter just in front of the flared portion of the catheter and one-third of an inch lateral to the median line, picking up one-quarter of an inch of tissue. Entering laterally and emerging medially on the opposite side, the same suture is similarly placed except that it enters medially and emerges laterally. This is then tied. A second suture is placed in the same manner three-eighths of an inch forward to this. If the relaxation is great a second tier of two sutures is placed to produce an even greater narrowing of the urethra.

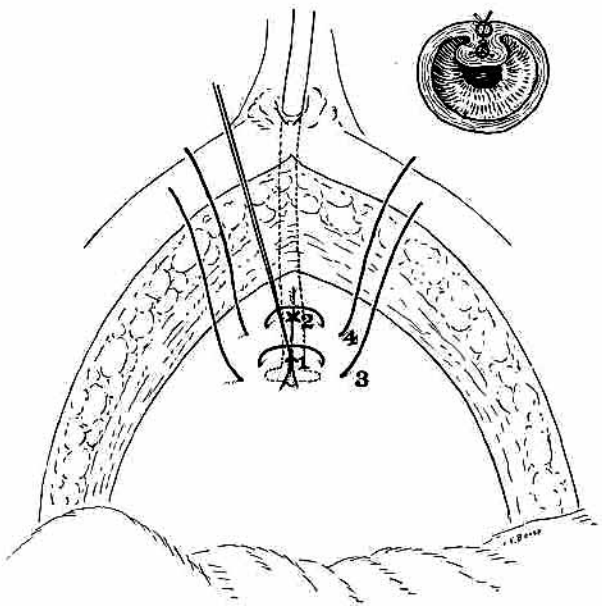

Fig. 3.—Diagram showing placement of sutures. The first and second sutures have been tied as shown by 1 and 2x; 3 and 4 represent two sutures of the second tier. The insert shows diagrammatically the infolding of the urethra.

In instances of prolapse of the urethra the caudad sutures of the second tier are left long and attached to the fascia of the abdominal wound so that the vesical end of the urethra is drawn up and behind the symphysis. Usually there is no bleeding—occasionally a vein overlying the urethrovesical junction may be punctured. Unless there is oozing, the abdominal wound is closed without drainage, the catheter removed, and the patient put in half Fowler position to give intestinal pressure to the operative area and prevent dead spaces.

In the after-treatment, catheterization is done as often and as long as indicated, the patient being given urotropin and acid sodium phosphate in the meanwhile. Patients are kept in bed twelve days. The chief point to be emphasized is the avoidance of straining efforts.

I have had two perfect results of the classical Kelly slightly marred by coughing incident to influenza, therefore, with the development of such a condition the cough must be controlled by sedatives.

I do not believe the results of this operation are any better than of the Kelly, with the disadvantage of necessitating an abdominal incision. Therefore, I have restricted its use to (1) cases in which the Kelly is difficult of performance, as in elderly nulliparae and those with senile atrophy. In these the vagina is often very contracted, and the mucosa so thin and easily torn that dissection is most difficult; (2) where other operations have produced conditions making the Kelly technically difficult, as Watkins interposition, cystocele, and plastics for vesicovaginal fistulae when a previous Kelly operation has failed.

In abdominal operations done through a low median incision this operation may be advantageously added.

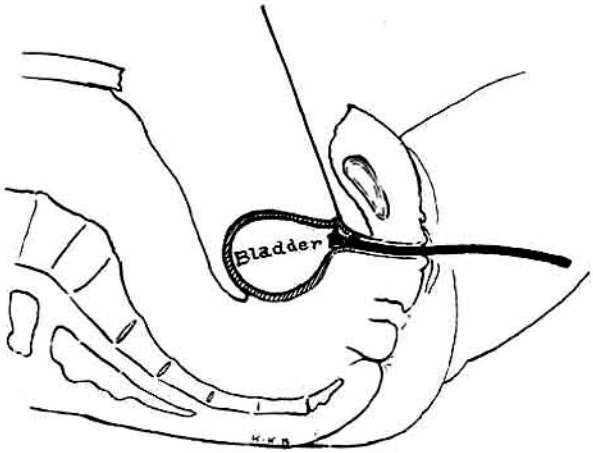

Fig. 4.—Sagittal section. Where there has been marked separation and prolapse of the urethra, the uppermost suture is left long and attached to the rectus fascia, thus elevating the urethra behind the symphysis.

Since March I have done this operation on four cases with results that are for the moment good and which appear promising for the future.

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