

Short Commentary

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The Application of Skin Expander in Subcutaneous Cystoplasty: A Novel Method to Solve the Dysfunction of Bladder

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ABSTRACT

The patients of neurogenic bladder or radical cystectomy suffered much of the bladder dysfunction, leading mass wealth losses and misfortune of individual and society. We designed a new method to solve the problem: subcutaneous cystoplasty. Three skin expanders were buried around the abdominal ureter exit after cutaneous ureterostomy, then the inner skin bag were constructed by the expanded skin. The subcutaneous tunnel connected to the urine bag were pressed outside by belt to control the voiding. Skin urethra bulge, controlling the direction of the urination, located at the terminal of subcutaneous tunnel. Patients can put pressure to the subcutaneous urine bag to exhaust the urine. It may affect the appearance, but it can avoid many defects caused by ileocolic-cystoplasty, and may help neurogenic patients get ride of external urine bags.

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The patients of neurogenic bladder, bladder fibrillation or radical cystectomy suffered much of the bladder dysfunction, leading mass losses and misfortune of individual and society [1]. In our study, we designed We designed a novel operation to solve the problem:subcutaneous cystoplasty. The operation needs skin expanders which are widely used in plastic surgery [2]. Three expander buried around the abdominal ureter exit of cutaneous ureterostomy, as shown in Figure 1(A). Then, physiological saline was injected into the expanders during the preoperative months.

After the skin being enlarged enough to make a subcutaneous bladder, the three expanders were then removed, and subcutaneous cystoplasty can be done. The operation design were shown in Figure 1(B).

Island flap can be used to construct the inside urine bag,during the operation, blood vessel of the flap should be careful dispute, or it may make the skin necrosis and lead to the operation failure. Subcutaneous skin tunnel were stitched around the urinary catheter,the terminal of tunnel was prominent. At last the outside skin was sutured. When the patients recovered, the diagrammatic sketch of the subcutaneous urine bag was shown in Figure 1(C).

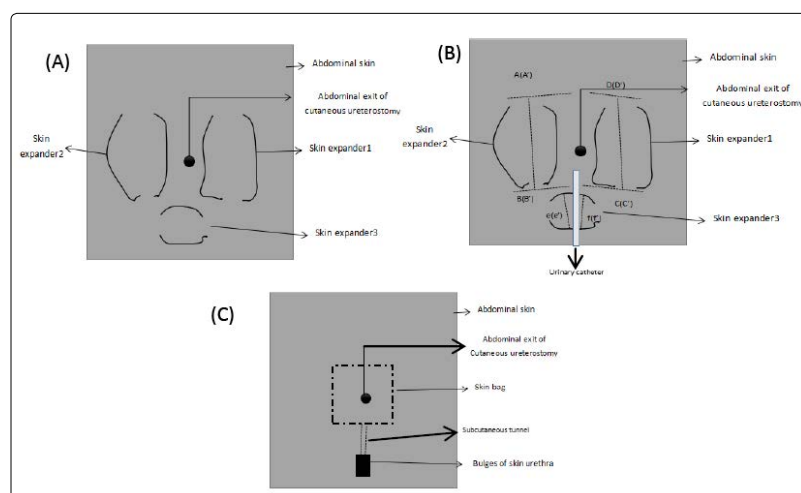


Figure 1: (A) Three expander buried around the abdominal ureter exit after cutaneous ureterostomy. (B) The incision design(dotted lines) of subcutaneous cystoplasty, A'B' and D'C' stitched together, then the subcutaneous bag can be constructed by sewing up all its edges. The edge of e' and f' were stitched together around the urinary catheter to make subcutaneous tunnel, the terminal of tunnel was made prominent to direct the voiding. Finally, AB and CD, e and f stitched together, the bag can be hid under skin. (C) The final form of subcutaneous cystoplasty: The ureters opened at the skin bag where the urine stored in. The Subcutaneous tunnel can be pressed outside by belt to control the voiding. The bulge of skin urethra can help direct the urination.

The ureters of the patients opened at the skin bag where the urine stored in. The Subcutaneous tunnel can be pressed outside by belt to control the voiding. The bulge of skin urethra, located at the terminal of subcutaneous tunnel, can help direct the urination. Patients can put pressure to the urine bag to exhaust the urine. It may affect the appearance, but it can avoid many defects caused by ileocolic-cystoplasty, and may help neurogenic patients get ride of external urine bags [3]. The voiding control of the operation was obvious superior than the others.

Declarations

No conflict between authors.

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