Laparoscopic gastrocystoplasty for tuberculous contracted bladder

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ABSTRACT

The stomach is the preferred augmentation option for a contracted bladder in a patient with renal failure. A 49-year-old female presented with right solitary functioning kidney with tuberculous lower ureteric stricture and contracted bladder. Her creatinine was 2.8 mg%. By laparoscopic approach, right gastroepiploic artery based gastric flap was isolated using staplers and used for augmentation and ureteric replacement. At 6-month follow-up, her creatinine was 1.9 mg%, and bladder capacity was 250 ml. She had mild hematuria, which settled with proton pump inhibitors. Laparoscopic gastrocystoplasty is feasible and effective augmentation option in those with renal failure, giving the benefits of minimally invasive approach.

INTRODUCTION

Augmentation of the bladder is indicated in a small poorly compliant bladder with or without refractory overactivity. [1] The most common and most studied tissue used for augmentation is ileum. However, in patients with renal failure, with a serum creatinine >2 mg/dl, the use of ileum can result in worsening of acidosis and renal failure. Hence, the use of a stomach flap is one of the options when a dilated ureter is not available to do ureterocystoplasty. [1] We present the case report of laparoscopic gastrocystoplasty for ureteric replacement and bladder augmentation.

CASE REPORT

A 49-year-old female presented with right loin pain and urinary storage symptoms of 1-year duration. Clinical examination was unremarkable. She had right hydroureteronephrosis with lower ureteric stricture and thimble bladder [Figure 1a]. Her left kidney was small and contracted. Her serum creatinine was 2.8 mg%.

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Cystoscopy and right retrograde pyelogram confirmed thimble bladder and right lower ureteric stricture. She had undergone right ureteric reimplantation for ureteric stricture 3 months back and was started on antituberculous treatment. Due to recurrent stricture, a percutaneous nephrostomy was placed. Since she had a contracted bladder with renal failure, gastrocystoplasty was planned.

Under general anesthesia, the patient was placed in reverse Trendelenburg position. Nasogastric tube was placed. Five ports were inserted initially, one each of 10 mm and 15 mm







Figure 1: (a) Preoperative right nephrostogram and cystogram. (b) Postoperative cystogram

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