

Ureterosigmoidostomy: A Useful Technique

Pages with reference to book, From 133 To 135

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Abstract

Eight patients of bladder extrophy who had ureterosigmoidostomy have been retrospectively analysed. Six patients experienced no postoperative complications. There was no mortality. Open transcolonic mucosa to mucosa proves to be a useful technique of anastomosis. This type of urinary diversion is socially acceptable to Pakistani patients (JPMA 33:13 3, 1983).

Introduction

Ureterosigmoidostomy was first reported as a procedure for urinary diversion in 1952 by Simon. This attempt was a partial success and posed problems because of infection and leakage at the site of anastomosis.

There has been various improvisations since. Coffey (1921). introduced submucosal tunnel to prevent reflux and Nesbit (1949) devised mucosa to mucosa anastomosis to prevent the formation of stricture. Later end to side mucosal anastomosis was described (Cordonnier, 1950). Leadbetter and Clarke (1955) combined the techniques of Coffey and Nesbit.

In 1950 ileal conduit was popularised as a procedure for urinary diversion and as a result ureterosigmoidostomy went out of favour (Bricker, 1950). Results of long term Critical evaluation of patients who had ileal conduit diversion were disappointing (Stevens and Eckstein, 1977; Nieh et al., 1978; Jones et al., 1980; Philip et al., 1980; Orr et al., 1981). The pendulum is therefore likely to swing back in favour of a simpler technique i.e. open transcolonic method with formation of submucosal tunnel and direct mucosal anastomosis developed by Goodwin et al.(1953).

We report a retrospective review of our experience with open transcolonic method and direct mucosal anastomosis technique in Pakistan.

Material

Eight cases (7 males and 1 female) of bladder extrophy admitted between May 1974 and December, 1981, were reviewed. This age ranged between 5-20 years. Two were 20 years old and 6 between 5-7 years.

All patients had ureterosigmoidostomy as primary diversion procedure. All had sphincteric control of faeces except one who had anal incontinence. This patient had a Thiersch operation prior to ureterosigmoidostomy.

A follow up of 6-18 months was possible. Technique Pre-operative bowel preparation was done with low residue diet, enemas, laxatives and antibiotics. The abdomen was opened through a midline incision. The ureters were isolated and implanted separately in the sigmoid colon. An open transcolonic approach was used. The ureters were tunnelled through sigmoid colon and end to side mucosa to mucosa anastomosis was done. In most patients the ureters were splinted with ureteric catheters and a rectal tube was placed. The splints were usually spontaneously evacuated within 4-5 days post-operatively. The rectal tubes remained in place for about a week. 3-4 months later cystectomy was done.

Results

There was no operative mortality. All cases attained a reasonable level of continence with a frequency of every two to three hours during the day and once or twice during the night. Six patients had uneventful post operative recovery. Two patients had one or more complications as shown in the following table.

Table

Complications		
Early	Pyelonephritis	— 2
	Wound Dehiscence	— 1
Late	Renal Calculus	— 1

Discussion

Most patients in our series had a smooth postoperative course. Only 2 out of 8 patients had complications. Although apparently favourable, these results because of the small number of cases and short followup, should be interpreted with caution.

The absence of a fatality in this series reflects the safety of the procedure.

Two cases developed pyelonephritis. One of them, a 20-year old, had chronic urinary tract infection preoperatively. Despite antibiotic cover, he developed pyelonephritis post-operatively, apparently a flare-up of the . previous infection. Patients with chronic urinary infection are generally poor candidates for ureterosigmoidostomy and should be on long term antibiotics (Hoch et al., 1979).

One other patient had wound infection leading to dehiscence and had to be restitched. This may be attributed to inadequate bowel preparation.

One patient developed a renal calculus which led to pyonephrosis necessitating nephrectomy. This patient had chronic renal infection prior to surgery Spence (1966) has reported a similar case.

Hyperchloraemic acidosis was not encountered. All patients had received sodium carbonate or sodium potassium citrate as a routine. Our follow-up is short and we do anticipate late complications in certain cases as reported in other series (Dunn et al., 1979).

In our part of the world, external collection devices, stoma care nursing and facilities for patient training are not readily available. A reservoir form of diversion may be preferred not only by the surgeon but also by the patient.

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