Summary and Conclusion

Although orthotopic substitution of the bladder is considered the optimal method of urinary diversion following cystectomy, the procedure may not be applicable in a significant proportion of cases : including patients with a pathological condition of the urethra or a high likehoad of urethral recurrence. In such circumstances an anal sphincter controlled bladder substitute provide a viable alternative .

A multitude of techniques have been described to divert the urinary stream to the rectum. It is clear that the overall goal of such procedure is the storage of urine under low pressure conditions. Unfortunately, the classical techniques of ureterosigmoidostomy as well as rectal bladder do not permit low pressure storage because the intestine is left intact.

In the present study 81 patients were undergone radical cystectomy and two methods of diversion have been utilized, ureterosigmoidostomy and sigma rectum pouch .

Ureterosigmoidostomy group, the first group, included 42 patients, 9.6% were females with mean age 57.17 ± 8.009.

The sigma pouch group, the second group, were 39 patients, 20.5% were females with mean age 53.85 ± 7.38 .

Sigma pouch have been done by folding the sigmoid into U shaped configuration or by double folding into N shaped configuration the ureters were implanted by the submucous tunnel technique in cases of ureterosigmoidostomy and in the U shaped sigma pouch. Extramural serous lined tunnels technique were used in the double folded N shaped pouch.

Mortality rate in the early post operative was 4.8% in the ureterosigmoidostomy group and 5.1 % in the sigma pouch group. In the late post operative evaluation mortality was 22.5% in the first group and 11.4 % in the sigma pouch group. Tumour recurrence was the main cause of death in the both groups.

The major early complications reported in the ureterosigmoidostomy group and the sigma pouch group were respectively : urinary leakage 16.7 % and 10.3%, fecal leakage 0% and 5.1 %, ureteric obstruction 9.5 % and 2.6%, ureteric reflux 4.8 % and 0% , acute episodes of pyelonephritis 11.9% and 5.1 % and wound infection was 19.% and 17.9 % .

The late complications in the both groups were : ureterocolic obstruction 12.5% and 11.4 %, ureterocolic reflux 5% and 8.6%, chronic pyelonephritis 17.5 % and 11.4% , renal function deterioration 10% and 5.7 % , tumour recurrence 15 % and 8.6 % , renal calculi 2.5 % and 5 % , lastly metabolic acidosis was 20 % in the first group and 0 % in the sigma group.

Radiological reno-ureteral pattern was stabilized in 73.75% in the ureterosigmoidostomy group and in 87% in the sigma pouch group

Daytime continence was achieved in 87.5%in the ureterosigmoidostomy group and 100% in the second group .Night continence was 72.5% and 88.5% in the two groups respectively . Enuretic patients were 3 patients 7.5% in the first group and in one patient 2.8% in the second group .

Pouchmetry and pouchgram have been evaluated in sigma pouch group with mean capacity 656.206 cc $\pm$ 120.9 and mean pressure 20.038 cm of water $\pm$ 3.02 . There is no significant difference among U shaped and N shaped double folded pouch configuration .

The study of blood urea and serum creatinine in uretero sigmoidostomy group revealed that higher values will be resulted at prolonged time of evaluation and no significant difference have been illustrated in the sigma pouch group .

The sigma rectum pouch has many advantages over other forms of continent urinary diversion . A reservoir capacity , safe and stable pouch fixation without the risk of damaging the mesentry in the area of the promontory , guaranteeing a straight ureteral path and low pressure even at high filling volumes make the sigma rectum pouch a most attractive urinary diversion .

Simple detubularization without the need for extensive bowel surgery or colostomy suffices to create a low pressure reservoir . With this technique even dilated ureter can be implanted . This technique improves continence and protecting the upper urinary tract . It is an elegant and simple method to create a low pressure reservoir .