EDITORIAL

MANAGEMENT OF COMPLEX URETHRAL STRICTURE DISEASE: TAKE THE CHALLENGE

We have started reconstructive surgery for urethral stricture disease since a long time. It is considered as one of the most challenging surgery for the urologist. But the result of the reconstructive surgery is not up to full satisfaction yet. Although a significant improvement has been achieved in this field after a day long live operating workshop in urethral reconstruction by renowned faculty Dr. Sanjay Kulkarni in April 2010. Some of our young urologists have come forward to take the challenges.

In our country urethral stricture disease, is mostly suffered by unprivileged group of people. Mostly suffer due to inflammatory disease RTA or BXO. But most difficult job is to manage complex strictures. There are various types of complex strictures such as Redo urethraplasty, Recto-urethral fistula, hypospadious cripple, watering can perineum and BXO. Eminent Italian surgeon Guido Barbagli have revolutionized the management of urethroplasty. Moreover Dr. Sanjay Kulkarni has made this surgery more successful by introducing his own techniques in urethroplasty.

The success rate of dorsal onlay buccal mucosa graft urethroplasty is around 85% so 15% patients need redo urethroplasty[1]. The causes of failure are proximal or distal anastomotic ring and loss of BMG. If it is use to anastomotic ring one attempt at OIU is justified but if it fails a ventral onlay BMG urethroplasty give excellent results.

Failure after anatastomotic urethreplasty is due to inadequate excision of the scar at the apex of the prostatic urthra. Redo urethroplasty in this failed cases are a big challenge. Anastomosis should be done with pink mobile urethra not with white from scar around the urethra.

Complex stricture with Recto-urethral fistula is also a very difficult situation. Those patients who present with penetrating trauma to the rectum usually need immediate repair of the rectal tear wound and a defuctioning colostomy. Urethral injury associated pelvic fracture will need an SPC. Once patient is stabilized he is discharged home and comes back three months later for second step and anastomotic urethroplasty with omental wrap is to be done. Once the patien is voiding well after cather removal the colostomy is closed three months after the second step.

Watering can perineum is a rare complication of extensive per urethral fibroses leading to multiple abscesses and fistula of the perineum. The traditional operation is Johanson's two stage urethroplasty. Dr. Kulkarni has presented a new technique of urethroplasty for watering can perineum at 2002 AUA. In the first stage the bulbar urethra is mobilized from the corpora covernosa opened dorsally the right edge of the urethra is fixed to the eorpora covernosa, the left edge of the urethra is fixed to the right edge of the skin. The left edge of the skin is fixed to the corporea coverenosa leaving a raw area of 1.5cm wide on cavernosa. In the step two three months later, the epithelium covering the corpora cavernosa is excised and replaced by BMG. The left edge of the urethra is released from the right skin margin and the urethra is used as a ventral plate to cover the buccal mucosa graft placed dorsally. The skin edges are sutured to close the wound. The deantage of the technique is genital skin is not utilized for reconstruction.

Balanitis xerotica obliterans (lichen sclerosus) inflammatory skin disase of genitalia may cause destructive scaring that may cause serious urinary and sexual problems. It may present with penile urethral stricture. Various options are described in the literature. Two stage reconstruction of the penile urethra is preferred by many reconstructive urologists. These patients may have undergone multiple failed unthroplasies, multiple OIU and multiple dilatations. Because use of genital skin leads to high recurrence

rate, we advocate the use of Kulkarni technique from full length strictures of the urethra due to Lichen scleroses.

Bangladesh J. Urol. 2013; 16(2): 35-36

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Bangladesh Journal of Urology

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Abbreviations

BMG : Buccal Mucosal Graft
BXO : Balanitis xerotica obliterans
OIU : Optical internal urethrotomy
SPC : Supra pubic cystostomy