

RECONSTRUCTION OF EXTENSIVE FEMALE LOWER URINARY TRACT INJURIES EXPERIENCE WITH 37 CASES

Hypothesis / aims of study

To present our experience in treatment of extensive female lower urinary tract injuries.

Study design, materials and methods

From May 1998 to September 2006 we treated 37 females with traumatic lower genitourinary tract injuries. They comprised 5 groups

Group I (6 patients): **Delivery induced giant ischemic vesico-urethro- vaginal fistulas** due to prolonged 2nd stage of labour.

Group II (13 patients): **Iatrogenic urethrovaginal fistula**. These cases were following anterior colporrhaphy (5 cases) and secondary to synthetic sling erosion (8 cases).

Management in group I and II consisted of dissection of the vesico-urethral complex off the vaginal mucosa, freshening of the edges and closure of each separately. Interposition of labial (Martius) flap was done in 10 and gracilis muscle flap in 4 patients.

Group III (9 patients). **Traumatic vesico-urethro- vaginal fistula**. All following motor car injury. Treatment was in the form of repair of the fistula/defect with or without urethral replacement by anterior bladder tube in 3 patients and by anterior vaginal tube in 2 patients and by continent cutaneous diversion in 4 patients

Group IV (5 cases). **Defloration injuries**. These were done by non-trained medical personnel whom by mistake cut through the urethra (may be up to the bladder) instead of the hymen. This resulted in a short patulous urethra in 2 patients and urethro-vesico-vaginal fistula in 3 patients. Management consisted of either plication of the urethra (2 patients) or anatomical repair in 3 patients.

Group V: (4cases): **Severe vaginal stenosis and urinary incontinence**. Following severe vaginal inflammation and multiple surgeries. Management consisted of augmentation vaginoplasty with or without (2 cases) pubovaginal sling.

All patients were totally incontinent preoperatively. Four patients were diverted from the start. Of the remaining 33 patients, 18 underwent an AIP (anti-incontinence procedure) simultaneously with the 1st surgery. The remaining 15 patients were evaluated postoperatively. Four patients were dry and did not require an AIP and 11 patients required AIP in the form of Injection with bulking agent in 8 patients or pubovaginal sling in 3 patients

Results

after a mean of 38 months (range: 8- 96 months) follow up revealed:

Anatomical Outcome: success was achieved after primary repair in 30 (86%) of 35 patients. 2^{ry} closure was successful in 3 of 5 patients increasing success to 94%.

Continence: Dryness was achieved in 30 (86%) of 35 patients. Twenty eight had complete dryness and 2 reported minimal incontinence.

Sexual activity: twenty four patients are sexually active and satisfied. Three patients report variable degrees of dysparunia. Eight patients are not sexually active.

Interpretation of results

Satisfactory anatomical and functional outcome are achievable in management of cases of severe lower female urinary tract injuries. Individual management of each case is essential.

Concluding message

Familiarity with all the reconstructive techniques is the corner stone for a successful outcome of these challenging cases.

<i>Specify source of funding or grant</i>	none
<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	ethical comitee of urology department ain shams university
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes