Original Article

Use of anticholinergic in postoperative care of genitourinary fistula

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Objective: To evaluate use of anticholinergic drug in postoperative care of genitourinary fistula.

Methodology: This prospective study was conducted in Uro-gynecology ward at Shaheed Mohtarma Benazir Bhutto Medical University, Larkana, Pakistan from January to October 2018. Detailed history regarding age, parity, mode of delivery, duration of incontinence, history of glaucoma, time of presentation, address and mode of referral were taken on predesigned performa. Detailed examination as well as local examination was done in good light in theater and fistula classified on Waaldejik classification. A total 31 patients were operated, 21 was obstetric whereas 9 were iatrogenic. 30 patients were operated with Latzko while only one case with O'Connor technique. All patients postoperatively were prescribed 10mg of oral anticholinergic (Solifenacin) tablet once a day after breakfast once orally. Folly's catheter 14fr inserted per-operatively, bladder wash continued postoperatively along with antibiotics and anticholinergic started as soon when orally allowed. Bladder spasm pain was analyzed by using visual pain analogue score.

Results: Out of 31 patients, 28 were of vesicovaginal WT I & II, 2 cases of uretherovaginal WT III, whereas one case of combine fistula (juxta cervical as well as vesicouterine WT I). One patient discontinued medication due to dry mouth and nausea, two were declared as failure, one due to recurrent UTI and one due to repeated surgery while rest of patient's surgery was successful with fewer episodes of bladder spasm.

Conclusion: Anticholinergic along with prolong catheterization was effective in increasing healing of suture line, decreasing bladder spasm, relaxing detrusor, thus increasing success rate and decreasing failure rate. (Rawal Med J 202;46:342-344).

Keywords: Genitourinary fistula, bladder spasm, anticholinergic.

INTRODUCTION

Genitourinary fistula regardless of its etiology is most traumatic disorder with grief and long term consequences of both social and physical, which patient have to face thought the course of disease and sometimes have to live with it for rest of her life. So the success of surgery is always challenging for the surgeon. The overall incidence of genitourinary fistula is varies between 0.5 to 1.5% whereas VVF is most common type.[1]

One of the postoperative complications is bladder spasm, which is defined as sudden onset of intermittent pain in the region of bladder lasting for short period of time in patients who were previously comfortable with routine postoperative analgesics, mostly caused by prolonged catheterization. Reported in 45.1%, but good outcome is seen in patients who do not develop bladder spasms.[2] Detrusor contraction may have effect on suture line of fistula surgery secondary to bladder spasms causing tension on it. Anticholinergic drugs relax detrusor muscles and reduce symptoms and release the tension on suture line.[3-5] The purpose of our study was to prescribe anticholinergics to the patients postoperatively as one of the component for promotion of healing along with continues bladder drainage.

METHODOLOGY

This prospective study was conducted at Uro-gynecology ward at SMBBMU Larkana, Sindh, Pakistan from January to October 2018. All patients were admitted through outpatient. Detailed history regarding age, parity, mode of delivery, cause of fistula, duration of

incontinence, history of glaucoma, time of presentation, address and mode of referral was documented. Detailed general physical examination and local examination done in good light in theater where fistula classified on Waldejik classifications[6] as well as vaginal adequacy for vaginal repair and health of surrounding tissues was noted.

All patients underwent cystoscopy for mapping of fistula like location, size, number and its association with ureteric orifices. In suspected cases of Ureteric fistula especially iatrogenic IVU (intravenous urography) was advised. Total 31 patients were operated; 21 was obstetric whereas 9 were iatrogenic. Among 31 patients 29 were operated with Latzko procedure and 2 case with O'Connor technique in which one was combine vesicovaginal and uterovesical fistula. 3 ways folly's catheter 14fr inserted per-operatively for bladder irrigation, continued postoperatively for initial 24-48 hours.

Along with antibiotics, oral anticholinergic (Solifenacin) 10mg tablet once a day after breakfast was given orally. Brief side effects were informed to all patients and prophylactic measures were also instructed like drinking plenty of water, using curd and cinnamon as oral moisturizer to avoid dry mouth, for avoiding constipation, Isphagol husk and mild laxative advised. Patient were followed on daily basis till 2 weeks which was maximum time to stay in hospital. Bladder spasm and pain were assessed by VAS. Before removal of folly's catheter cystogram was advised usually on 21 day postoperatively to conform leak free patient and anticholinergics continued for 9 days more.

Statistical Analysis: For data analysis SPSS version 20 was used.

RESULTS

The study included 31 patients with mean age of 31.66±5.31 years. Most patients had WT I and II type fistule (Table 1). Cause of fistula was obstetric in majority of patients (Table 2) After examination and cystoscopy, 29 case were selected for Latzko technique and only 2 for O'Connor (Table 3).

Table 1. Types of fistule by Waaldijk classification.

No of patient	Type of fistula	Percentage
20	WT1*	64.5%
08	WTII*	25.8%
02	WTIIA*	6.4%
01	Combined fistula WTI*	3.2%

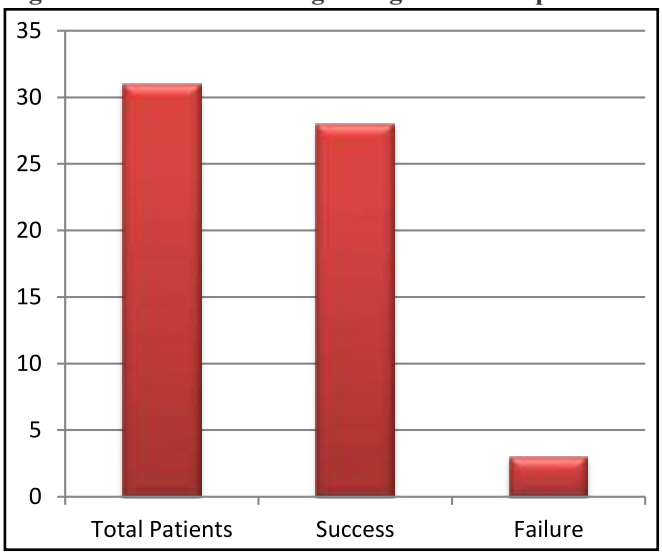
Table 2. Cause of fistule.

No of patients	Cause	Percentage
21	Obstetrics	67.7%
09	Iatrogenic	29.0%

Table 3. Type of surgery performed.

No of patients	Type of surgery	Percentage
29	Latzko	93.3%
02	O Connor	6.4%

Fig. Success of Anticholinergic drug in bladder spasm.



Bladder spam pain was analyzed by using visual analogue score. One patient discontinued medication due to dry mouth and nausea, two were declared as failure, one due to recurrent UTI and other due to repeated surgery. In rest of patients, surgery was successful with lesser episodes of bladder spasm. Success rate was 93.5% (Fig.).

DISCUSSION

Among genitourinary fistule, vesicovaginal fistula (VVF) is most commonly acquired as obstetric fistula especially in developing countries, as seen in

our study.[10,11] Vaginal examination and cystoscopy are valuable diagnostic tools, whereas intravenous urogram is for suspected cases where no fistula found on cystoscopy.[9]

Surgical grading is important for proper classification.[6] In our study, we used Waaldejik classification. Widely preferred route of fistula surgery is vaginal regardless of its etiology. Latzko technique is reported to have 93% success rate.[9]

Use of anticholinergics along with prolong catheterization is effective in spontaneous closure of small fistula, increase healing of suture line, decreasing bladder spasm, relaxing detrusor so increases success rate and decrease failure rate.[12] Michael et al also recommended anticholinergic drugs for bladder spasms.[13] As far as causing discomfort to the patient, it has been suggested that these contractions may compromise healing of the repair. Shanmuga et al suggested that bladder spasm following surgical urogenital fistula repair is scarce.[14]

Incidence of bladder spasms among patients who underwent urogenital fistula repair by vaginal or an abdominal approach has been noted, which was higher in abdominal approach. The highest incidence of bladder spasms was observed among patients with vault fistula, followed by those with vesicouterine fistula. Abdominal approach essentially requires bladder splitting and results in a higher incidence of bladder spasm however, this increase may not be significant.

A reduction in the tension at the suture line may prevent/reduce the postoperative bladder spasms. Therefore anticholinergic, along with adequate analgesics in the 1st postoperative week, may reduce patient discomfort and avoid unnecessary tension at the suture line. Our study results are similar to Michael et al and Shanmuga et al.[13,14]

CONCLUSION

Anticholinergic along with prolong catheterization was effective in increasing healing of suture line, decreasing bladder spasm, relaxing detrusor and thus, increasing success rate and decreasing failure rate.

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