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Original Article

Post-operative Genitourinary Fistula:A Survey in Faridpur Medical College Hospital (FMCH) and Diabetic Association Medical College Hospital, Faridpur (DAMCH)

Pramanik D[1], Saha JC[2], Khanom S[3], Begum P[4], Ahmed S[5]

Abstract

It was a retrospective study done in Faridpur Medical College Hospital, Faridpur, Bangladesh and Diabetic Association Medical College Faridpur from January 2001 to July 2015. Within this time 54 cases of genito-urinary fistulae (GUF) were treated. 11 vesico- vaginal fistulae were obstetric (following LSCS) in origin and rest 43 were Gynecological (mostly following TAH) fistula. Highest incidence was uretero- vault fistula which was the sequelae of surgery mostly done by non gynecological and non- specialist (about 90%), next was vesico- vault, vesico- vaginal and uretero vaginal fistula by obstetrician and gynecologist about (10%). Ninety three percent fistula developed in rural and urban clinics and 6.80% in hospitals. The result of treatment were excellent. Technical improvement of the surgery and referral to specialized Centre for fistula management certainly improves the success and diminishes the suffering of the patients

Key Words: Fistula, Genitourinary, Iatrogenic

Introduction

Genitourinary fistula is a major problem in many developing countries; specially the vesico-vaginal fistula (VVF) commonly caused by prolonged obstructed labour is one of the worst complication of child birth. Urological fistulae are not uncommon consequences of gynecological surgery. Iatrogenic fistulae due to gynecological surgery generally appear from three days to six weeks after surgery and the communication tracts uretero- vault, vesico- vault and vesico-uterine. Most authors quote an incidence rate for VVF after total abdominal hysterectomy (TAH) to be 0.5%, others suggest only a 0.05% incidence rate of injury to either the bladder or ureter[1]. Lee, in a series of 35,000 hysterectomies found that more than 80% of genitourinary fistula were due to gynecological surgery for benign diseases[2]. Uncomplicated TAH accounted for more than 70% of these surgeries. The indications of these are pelvic inflammatory disease (PID), endometriosis, dysfunctional uterine bleeding (DUB), leiomyoma and prolapsed. The purpose of these studies was to know the etiological background of postoperative fistula, its prevention and management in Faridpur Medical College Hospital, Faridpur and Diabetic Association Medical College Hospital, Faridpur.

1. Professor Dr. Dipti Pramanik, MBBS; FCPS (Gynae. & Obst.), Professor & Head, Department of Obstetrics & Gynaecology, Diabetic Association Medical College, Faridpur.
2. Professor Dr. Jitesh Chandra Saha, MBBS; FCPS (Surgery), FRCS (Edin), Professor & Head, Department of Surgery Diabetic Association Medical College, Faridpur
3. Dr. Suraiya Khanom, MBBS; DGO, Associate Professor, Department of Obstetrics & Gynaecology, Diabetic Association Medical College, Faridpur.
4. Dr. Poly Begum, MBBS; FCPS (Gynae. & Obst.) Assistant Professor, Department of Obstetrics & Gynaecology Diabetic Association Medical College, Faridpur.
5. Dr. Shahana Ahmed, Assistant Professor, MBBS; FCPS (Gynae. & Obst.), Department of Obstetrics & Gynaecology, Diabetic Association Medical College, Faridpur.

Address of correspondence:
Professor Dr. Dipti Pramanik, MBBS; FCPS (Gynae. & Obst.), Professor & Head, Department of Obstetrics & Gynaecology, Diabetic Association Medical College, Faridpur.
Cell: +8801720 238839. Email: diptipramanik@yahoo.com

Materials and Method

This was a retrospective study done in Faridpur Medical College Hospital, Faridpur Bangladesh and Diabetic Association Medical College Hospital, Faridpur from January 2001 to July 2015. The patients presented with symptoms of continuous dribbling of urine with normal urge of micturition following abdominal or vaginal surgery. The nature of the previous surgery was explored to know whether it was caesarean section or caesarean subtotal or total abdominal hysterectomy, total time required to the development of fistula, the place of surgery i.e., clinic or hospital and the qualification of surgeons. Clinical examination was done under spinal anaesthesia to know the position, size, and number of fistulae, associated fibrosis and vaginal stenosis.

Dye test was done for confirmation in most cases. Special investigations like intravenous urography (IVU) and cystoscopy were done for confirmation of GUF when needed. Local repair, reimplantation of ureter into bladder or repair by transvesical route under general anaesthesia /spinal anaesthesia was done. All cases were followed up to six months.

Results

The study revealed age range of the patients were 15- 50 years. Fifteen cases were having obstetric fistulae due to pressure necrosis from obstructed labour and iatrogenic fistulae were found in 39 cases (Table 1) presented the characteristics of study patients. Among patients having 36 were having vesico-vault fistula and 12 were vesico-vaginal

fistula, 4 were juxtacervical and 2 were uretero- vault fistulae (Table 2). Six fistulae resulted from surgery by obstetric specialist, nine cases were done by general surgeons and 39 cases were by unskilled non- specialist hand (Table 3). More than 85% surgery was performed in clinic and 14% in hospitals (Table 4). Among 54 patients, operation were performed throughabdominal route in 21cases and vaginal route in 33 cases (Table-5). Local repair was done in 33 cases (61.11%), transvesical repair in 17 cases (31.49%) and ureter re-implantation in 4 (7.40%) case (Table 6). After operation, three cases (uretero vault fistula,VVF and vesico uterine fistula) again developed urinary incontinence. Thereafter two cases (uretero vault fistula and VVF fistula) the tract was closed within 90 days and 45 days respectively but in vesico-uterine fistula,whose complaint was menouria, the patient refused further surgical intervention.

Table 01: Causes of Fistula (N=54)

Causes	Number of patient	Percentage (%)
Iatrogenic	39	72.22
Obstructed labour	15	27.77

Table 02: Types of Fistula (N=54)

Types	Number of patient	Percentage (%)
Vesico vault	36	66.66
Vesico vaginal	12	22.22
Juxtacervical	04	7.40
Uretero- vault	02	3.70

Table 03: Qualification of the surgeon (N=54).

Qualification of the surgeon	Number of patient	Percentage (%)
Unskilled/No specialist	39	72.22%
General Surgeon	9	16.67%
Obstetrician	6	11.11%

Table 04: Place of operation (N=54).

Place of operation	Number of patient	Percentage (%)
Clinic	46	85.18%
Hospital	08	14.81%

Table 05: Routes of operation of Fistula (N=54).

Route of operation	Number of patient	Percentage (%)
Abdominal	21	38.89%
Vaginal	33	61.11%

Table 06: Repair type of Fistula (N=54).

Type of repair	Number of patient	Percentage (%)
Local repair	33	61.11%
Transvesical repair	17	31.49%
Ureter re-implantation	04	07.40%

Discussion

Urogenital fistula is uncommon consequence of gynecological surgery. Vesicovaginal fistula due to gynecological surgery generally appears 1-6 weeks after surgery and recurrent fistula within three months of repair[3].

This retrospective analysis of GUFs cases in Faridpur Medical College Hospital, Faridpur Bangladesh and Diabetic association Medical College Faridpur Bangladesh from January 2001 to July 2015 it was found that in recent few years the iatrogenic fistula is more common than the obstetric fistula. A UNFPA survey estimates that over two million women in Bangladesh suffer from obstetrical fistula. Over 88% of deliveries in the country still take place in inexpert hands. Actually, there is no report of development of iatrogenic fistula in our country, which was the sequalae of gynecological surgery by untrained and inexperienced hands. In this series 65.50% of fistulae were developed by unskilled practitioners, general surgeon in 24% and by obstetrical and gynacologist in 10%; 93% of operations were performed in clinics and 6.8% were in hospitals. Recently, the obstetric fistula are gradually declining in number due to development of trained personnel's by the activities of comprehensive emergency obstetric care(EOC), improvement in spinal anaesthesia and blood transfusion facilities. On the other hand iatrogenic fistula are gradually declining in its incidence. Most patients live in rural areas and illiterate, and they have little basic knowledge of the disease.They have no idea who is the right person for consultation. In obstetric fistula, more than 50% of the women were deserted by their husbands after the fistula developed. About iatrogenic fistula, the family were worried and seek for medical advice in 100% cases. Treatment started within six months of fistula development. Controversy surrounds the length of delay between diagnosis and surgical repair of GUFs. Analysis of the data showed that no definition has been established for early and late intervals. Traditionally, operation time was in the range of 8 to 12 weeks interval between index surgery and repair. O'conor agrees that exact timing for repair depends on the tissue health. Most of his patents were brought to surgery approximately three months after index surgery[4]. All cases were repaired after three months of index surgery. GUF in developing countries are attributed to inadvertent bladder injury during pelvic surgery (90%). It involves relatively limited local bladder injury leading to smaller VVFs than those are observed in obstetric fistula[5]. Numerous authors highlighted the risk of various types of bladder injury during

pelvic surgery[6]. Such injuries include unrecognized intra-operative laceration of the bladder, bladder wall injury from electocautery or mechanical crushing and the dissection of the bladder into an incorrect plane, causing avascular necrosis.[7,8,9] Suture placement through the bladder wall itself may not play a significant role in VVF development. However, the risk of formation of a hematoma of avascular necrosis after a suture is placed through the bladder wall can lead to infection and abscess of the bladder wall. This wall defect permits the escape of urine into vagina and may be followed by an eventual epithelialisation of the track. Symmonds evaluated 800 GUFs over a 30 year period at the Mayo clinic, 85% of the VVFs s were related to pelvic operation and 75% were related to hysterectomy and 50% being secondary to simple uncomplicated total hysterectomy or vaginal hysterectomy[10]. The patients in this study are operated by local repair, ureter re-implantation into bladder and transvaginal repair in 92% cases and success rate was 100% and conservatively managed three cases one developed VVF after vaginal hysterectomy and one uretero vault fistula.; the fistula tract spontaneously closed within three months. One case of menouria had previous three caesarean section and she refused to further surgery. She was advised to use continuous oral contraceptive pill. Oral oestrogen tablet was used to improve the tissue vascularization and healing in two post menopausal patients.

GUFs are hidden tragedy for the patient and her family and for the treating surgeons. To reduce the incidence of GUFs medical ethics should be followed by all physicians. Governments should take initiatives for improving the trainig facilities both for the government and nongovernment doctors. Periodic follow up of the service quality of the private clinics will reduce the incidence of iatrogenic genitourinary fistulae.

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