

Obstetric Fistula And Other Genito-Urinary Injuries During January 2012 To December 2015 In Elobeid Teaching Hospital In North Kordofan State, Sudan

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Abstract: The current study was conducted in Elobeid teaching hospital in North Kordofan State, Sudan during January 2012 to December 2015. The Objective of the study was to Highlight the clinical presentation of Vesico-Vaginal Fistula (VVF) and to assess the treatment outcome of VVF in El-Obeid Teaching Hospital. Medical records of patients admitted to the gynecology ward in El-Obeid Teaching Hospital as cases VVF in the period from January 2012 to December 2014 were reviewed. **Methods:** A retrospective study of 103 patients with different types of vesico-vaginal fistula was reviewed between January 2012 to December 2014. Patients were analyzed with regard to age, parity, cause, diagnosis, mode of treatment and outcome. Patients were also evaluated initially according to prognosis. **Results:** Obstetrics VVF cases were 98 cases (97.08%). Three cases of uretero vaginal fistulae. One case of distal urethral avulsion and one case vesico-vaginal fistula following carcinoma of the cervix. Ninety-seven percent of the cases were living in rural areas. Patients aged below 20 years constituted 47.5% of the cases, and 53.4% were primiparous. Patients who were first seen and managed in labor by trained midwives 59.22%, TBAs 23.30 % and those seen by doctors and started labor in hospital 17.48%. The patients who delivered at home were 35.08%, while the patients delivered in hospital were 64.92%. Caesarian section was performed in 29.30%, 20.21% had instrumental vaginal delivery and 50.49% delivered vaginally. The outcome of the delivery was stillbirth in 84.47%. In 21.36% the fistula developed immediately, in 37.86% developed during the first 7 days, and in 40.78% in more than 7 days. Successfully managed cases were 88 cases 91.26%. During the study of three year period 103 patients of vesico-vaginal fistulae were reviewed. Majority of the patients were belonging to middle age group. In 48 patients repair was done through transvaginal route and 12 were operated through transabdominal route. One Ca patient expired and in 4 patients recurrence occurred. **Conclusions:** Iatrogenic vesico-vaginal fistulae are more common. Difficult and complicated fistulae need experienced surgeon. Establishment of separate fistula surgery unit is suggested to get desired results.

Keywords: Vesico-Vaginal Fistula (VVF), Iatrogenic, Obstructed labor, Hysterectomy.

INTRODUCTION

Obstetric vesico-vaginal fistula VVF is an indicator to poor antenatal and intra-partum care. It occurs predominantly in young mothers living far away from

health facilities. Genito-urinary fistula, GUF, is a common gynecological problem. It is a medical problem with an extremely adverse social impact. The obstetric vesico-vaginal fistula is the commonest variety. Its main cause is prolonged obstructed labour. In some of the cases it is also associated with recto vaginal fistula and peroneal nerve injuries. Other fistulae follow surgical injuries during caesarian sections or hysterectomies resulting in vesico – vaginal or uretero- vaginal fistulae, and some of them are due to advanced genital cancer or following radiation. An obstetric fistula is an abnormal opening between the vagina and urinary bladder or rectum (1). The fistula results in an abnormal passage of urine or feces from the bladder or rectum into the vagina (1). Obstetric fistulae are characteristically caused unrelieved obstructed labour (1). Fistulae can also result from other non-obstetric causes like lacerations, gynaecological surgical procedures and following pelvic organs radiation (1). Obstetric fistula is the commonest variety. Obstructed labour, the immediate cause of obstetric fistula, is one of the leading causes of maternal illness and death in sub-Saharan Africa and South Asia (2,3). Worldwide obstructed labour occurs in an estimated 5% of pregnancies and accounts for 8% of maternal deaths (4,5,6). The etiology of urogenital tract fistulas varies geographically. In the United States and other developed countries, these fistulas are typically related to gynecologic surgery, severe pelvic pathology, radiation therapy, or injuries incurred in the healing process. In contrast, urogenital fistulas in developing countries are usually associated with childbirth. As an example, of 303 women with genitourinary fistulas seen at the Mayo Clinic (1970 to 1985), gynecologic surgery was responsible for 82 percent, obstetric procedures for 8 percent, irradiation for 6 percent, and trauma or fulguration for 4 percent [7]. In a similar series of 126 cases of genitourinary fistulas, 91 percent followed surgery, primarily abdominal hysterectomy for benign disease [8]. By comparison, in Northern Nigeria (where one doctor is present for every 200,000 persons) 97 to 98 percent of urogenital fistulas resulted from obstructed labor [9,10]. In developing countries, vesicovaginal and other urogenital fistulas are estimated to occur in 2 percent of obstructed

labors [11]. An obstructed labor can take days to resolve. Prolonged compression of maternal soft tissues between the fetal head and maternal pelvis leads to ischemia, necrosis, and sloughing, resulting in urogenital fistula. Even after successful closure of the fistula in these patients, over 60 percent are left with problems (called the obstructed labor injury complex) such as foot drop from lumbosacral or common peroneal nerve injury, amenorrhea and secondary infertility, vaginal stenosis, stress urinary incontinence, fecal incontinence, and dyspareunia [11-12].

Objectives:

- 1- Highlight the clinical presentation of GUF in El-Obeid Teaching Hospital in the period January 2012 till December 2014.
- 2- Assess the treatment outcome of GUF in El-Obeid Teaching Hospital in the period January 2012 till December 2014.

METHODOLOGY:

Medical records of patients admitted to the gynaecology ward in El-Obeid Teaching Hospital as cases GUF in the

period from January 2012 to December 2014 were reviewed. Data analyzed using SPSS via descriptive statistical analysis. The operating team in this unit consists of two gynaecologists who operate jointly, with a group of registrars and house-officers. Following ordinary pre-operative preparations, all patients were operated using spinal anesthesia. Surgical techniques adopted were simple fistula repair (93 cases), repair with labial graft "Martius" (6 cases) and ureteric re-implantation (3 cases) and one case of urethral reconstruction. Standard post-operative care provided.

RESULTS AND DISCUSSION

Total number of cases was 103. Obstetrics VVF cases were 98 cases (97.08%). Three cases of uretero vaginal fistulae. One case of distal urethral avulsion and one case vesico-vaginal fistula following carcinoma of the cervix: The results showed that 47.57% of the patients were below 20 years while 40.6% were within the age group 20-39 years(Fig.1).The marital status showed that 94.16% were married(Fig.2).The delivery was conducted by village midwives were(39.81%), trained midwives (19.42%), TBA(23.3%) and those seen by doctors were(17.48%).

age

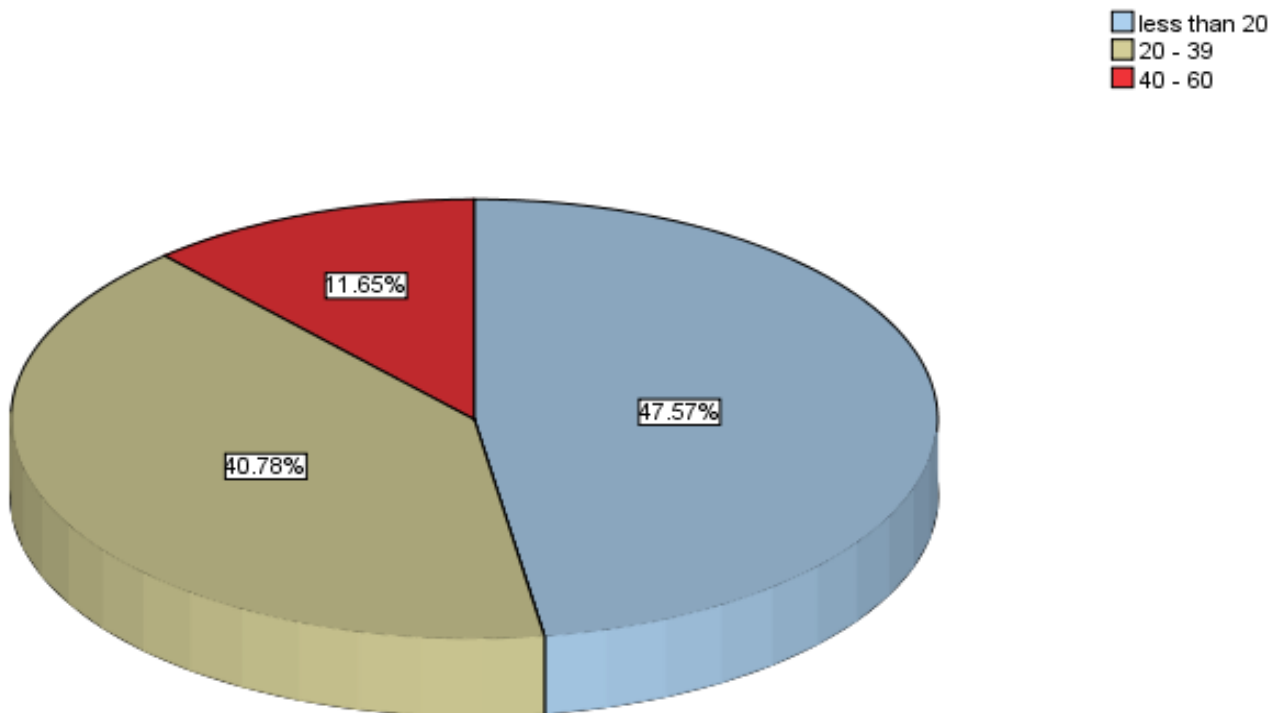


Figure 1: Age of the Patients in the Study area

marital

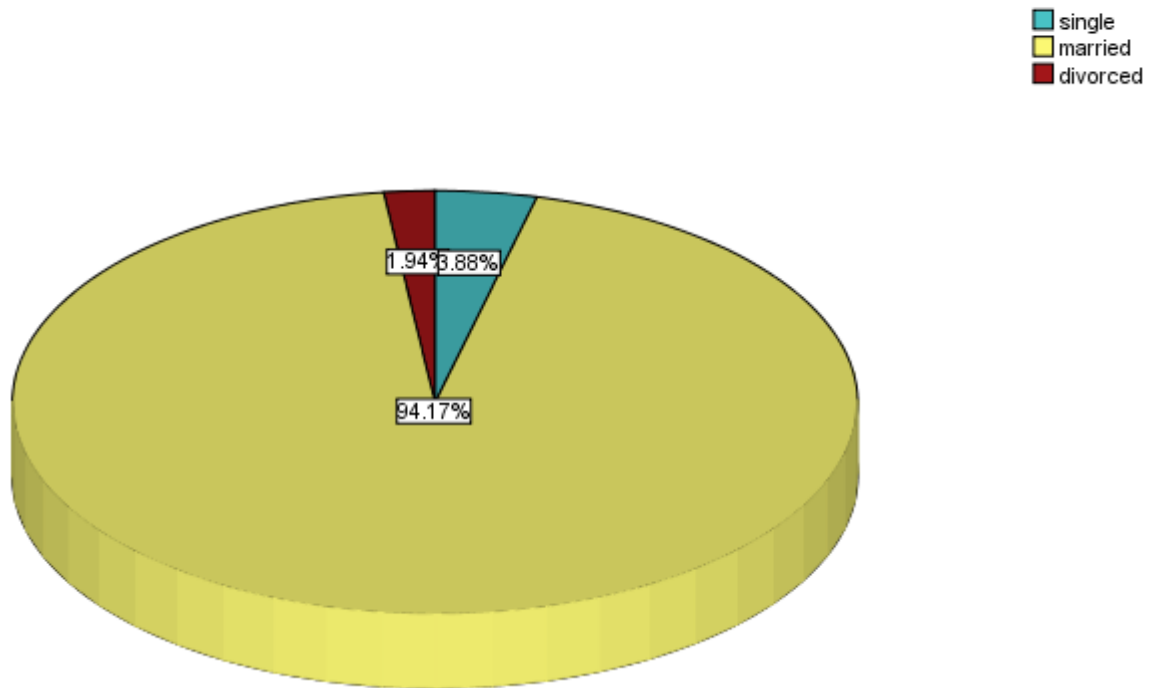


Figure 2: Marital status of the patients in the Study area

who conducted delivery

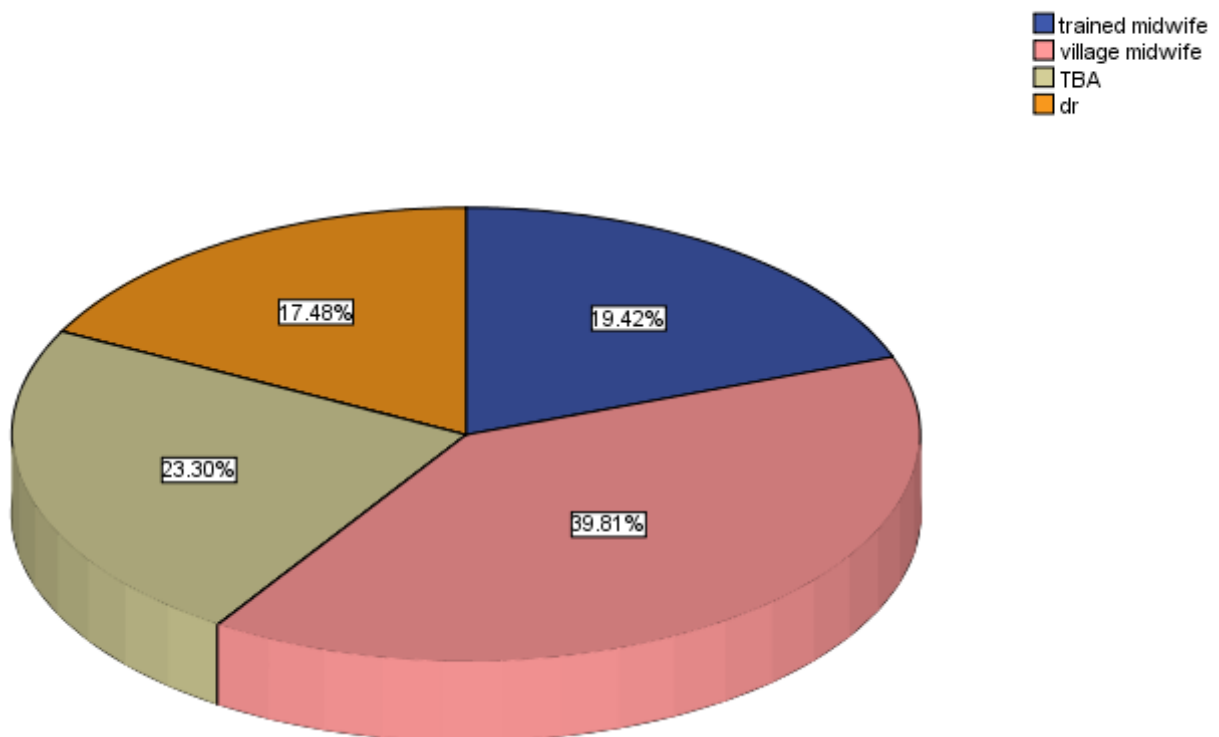


Figure 3: Delivery conduction for the patients in the study area

Table 1: Residence of the patients in the study area

Residence	Frequency	Percent
Rural	100	97.09%
Urban	3	2.91%
Total	103	100.00%

Table 2 Socioeconomic status of the patients in the study area

Socioeconomic Status	Frequency	Percent
very poor	61	59.22%
poor	39	37.86%
good	3	2.91%
Total	103	100.00%

Table 3 Parity

Parity	Frequency	Percent
primipara	55	53.40%
multipara	40	38.83%
grandmultipara	8	7.77%
Total	103	100.00%

Table 4 Mode of Delivery of the patients in the study area

Mode of Delivery	Frequency	Percent
vaginal	51	49.51%
instrumental	19	18.45%
C-section	30	29.13%
c-hysterectomy	3	1.94%
Total	103	100.00%

Table 5 Place of Delivery of the patients in the study area

Place of Delivery	Frequency	Percent
home	37	35.92%
hospital	66	64.08%
Total	103	100.00%

Table 6 Fetal outcome of the patients in the study area

Fetal outcome	Frequency	Percent
alive birth	16	15.53%
stillbirth	87	84.47%
Total	103	100.00%

Table 7: Other Injuries to the patients in the study area

Other Injuries	Frequency	Percent
nerve injury	30	29.13%
contracture	1	0.97%
others	25	24.27%
non	47	45.63%
Total	103	100.00%

Table 8: Circumcision of the patients in the study area

Circumcision	Frequency	Percent
circumcised	103	100%

Table 9: Type of Fistula of the patients in the study area

Type of Fistula	Frequency	Percent
VVF	97	94.17%
uretero vaginal	6	5.83%
Total	103	100.00%

Table 10: Size of Fistula of the patients in the study area

Size of Fistula	Frequency	Percent
less than 2cm	62	60.19%
more than 2cm	41	39.81%
Total	103	100.00%

Table 11: Fistula Repair for the patients in the study area

Fistula Repair	Frequency	Percent
simple repair	94	91.26%
repair & graft	7	6.80%

reimplantation of the ureter	2	1.94%
Total	103	100.00%

Table 1 Repair outcome to the patients in the study area

Repair outcome	Frequency	Percent
successful repair	94	91.26%
failed	9	8.74%
Total	103	100.00%

The majority of the patients were from rural areas(97.91%) and the rest 2.09% were from urban areas table 1. Also 97.08% of the patients were poor and very poor table 2, and 53.4% were primiparous and 38.83% were multipara, table 3. The patients who delivered at home were 35.08%, while the patients delivered in hospital were 64.92%. Caesarian section was performed in 29.30%, 20.21% had instrumental vaginal delivery and 50.49% delivered vaginally, tables 4 and 5. The outcome of the delivery was stillbirth in 84.47%, table 6. In 21.36% the fistula developed immediately, in 37.86% developed during the first 7 days, and in 40.78% in more than 7 days. Successfully managed cases were 88 cases 91.26%. Other Injuries to the patients were nerve injury and contracture by 29.13% and 0.97% for each table 7. All the patients were circumcised 100% table 8. For the type of fistula 94.17 were VVF and 5.83 were uretero vaginal table 9, and the size of the fistula was less than 2cm. for 60.19 and more than 2cm. for the rest table 10. The results revealed that for fistula repair, was simple repair for 91.26% and repair and graft for 6.80% table 11, the repair outcome was successfully for 91.26% of the patient table 12.

CONCLUSION

El-Obeid Teaching Hospital like any other hospital in Sub Saharan Africa receives all varieties of UGF. In most of the cases the defect is operable. By provision of adequate training to gynaecologist in such hospitals like El-Obeid Teaching Hospital most of the cases will be managed locally without being referred to Khartoum.

RECOMMENDATIONS

In order to reduce the incidence of GUF following obstructed labour, Antenatal and Intrapartum care should be improved and extended to reach mothers living in remote areas and the nomads who are moving looking for water and pasture for their animals. For effectively treating affected mothers, training of young specialists should be on regular basis. The establishment of the Sudanese Urogynaecological society, as a joint society between a

group of interested gynaecologists and surgeons.

REFERENCES

- [1] COTTINGHAM, J. and ROYSTON E. Obstetric fistula; A review of available information. Geneva. World Health Organization (WHO), 1991(Maternal Health and Safe Motherhood Programme) 39 p.
- [2] NEILSON J P., LAVENDER, T. QUENBY, S., and WARY, S. Obstructed Labor. British Medical Bulletin 67 :191-204. 2003.
- [3] TURMEN, T. Making pregnancy safer in rural areas. Geneva. World Health Organization. April 2003. 5 p.
- [4] CRON, J. Lessons from the developing world: Obstructed labor and vesico-vaginal fistula. Medscape General Medicine 5(3). Aug 14 .2003.
- [5] KWAST, B.E. Obstructed labour. Its contribution to maternal mortality. Midwifery 8(1):3-7. 1992.
- [6] WORLD HEALTH ORGANIZATION (WHO). Trends. Global situation in reproductive and family health 2000. (Reproductive Health Focus).
- [7] Lee RA, Symmonds RE, Williams TJ. Current status of genitourinary fistula. Obstet Gynecol 1988; 72:313.
- [8] Tancer ML. Observations on prevention and management of vesicovaginal fistula after total hysterectomy. Surg Gynecol Obstet 1992; 175:501.
- [9] Waaldijk, K. The surgical management of bladder fistula in 775 women in Northern Nigeria. Benda BV, Nijmegen, 1989.
- [10] Wall LL, Karshima JA, Kirschner C, Arrowsmith SD. The obstetric vesicovaginal fistula: characteristics of 899 patients from Jos, Nigeria. Am J Obstet Gynecol 2004; 190:1011.
- [11] Wall LL. Obstetric vesicovaginal fistula as an international public-health problem. Lancet 2006; 368:1201.
- [12] Murray C, Goh JT, Fynes M, Carey MP. Urinary and faecal incontinence following delayed primary repair of obstetric genital fistula. BJOG 2002; 109:828.