



Case Report

## Iatrogenic Vesicovaginal Fistula (VVF) Secondary to “Treatment” of Pelvic Organ Prolapse – A Case Report

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### ABSTRACT

The commonest cause of VVF in sub-Saharan Africa is prolonged obstructed labour. Most affected women are young and in the early part of their reproductive years. We present a case of a 55-year-old post-menopausal woman who had VVF following injury to the genital tract from the attempted treatment of Pelvic organ prolapse by a traditional healer. She presented with continuous urine leakage and pelvic organ protrusion. The evaluation revealed pelvic organ prolapse (Stage 4) and Kees Waaldjik type 11Ba Fistula. She subsequently had repair of the Fistula, vaginal hysterectomy and pelvic floor repair with satisfactory outcomes.

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### INTRODUCTION

Vesicovaginal Fistula (VVF) is an important morbidity in sub-Saharan Africa, resulting in physical, psychological and economic consequences for women and their families(1). VVF is an abnormal communication between the vagina and bladder, resulting in uncontrollable urine leakage. About 2 million women are suffering from the condition worldwide (2). In Nigeria, an estimated 13000 new cases of Fistula occur annually. The prevalence of Obstetric Fistula in Nigeria is 150,000 cases, a disproportionate 7.5% of this global burden<sup>1</sup>. The commonest cause of VVF is prolonged obstructed labour in countries with high burden of obstetric

Fistula found in sub-Saharan Africa and southeast Asia<sup>2</sup>. In northern Nigeria, most women had VVF at a young age in the early part of their reproductive career(3). While prolonged obstructed labour is the leading cause<sup>3</sup>, other notable causes include interventions such as caesarean section, instrumental vaginal delivery, hysterectomy, trauma and sexual assault<sup>4</sup>.

The occurrence of VVF in multiparous post-menopausal women is not common in northern Nigeria<sup>1,3</sup>. Most women with VVF in this area had it at a young age, were primiparous, and in the early part of their reproductive careers, with primiparous women being most vulnerable<sup>3</sup>. We present a case of a post-menopausal woman who

sought treatment for pelvic organ prolapse from a traditional healer but ended up with a VVF.

### CASE REPORT

Mrs RY is a 55-year-old woman who is para 7<sup>+0</sup> 5, alive, from Kwaya Kusar town of Borno State, Nigeria. Her last childbirth was 12 years ago and was 9 years post-menopause. She presented with a 2-year history of continuous leakage of urine. Before the leakage, she had noticed something coming down her vagina for over a year. There was no associated pain or bleeding, but it worried her and disturbed her everyday activities. She sometimes had difficulty passing urine. As a result, she sought treatment from a traditional healer, where she had a procedure to remove the protrusion.

It was after the procedure by the local Barber that urine leakage started. It was continuous, and she had no urge to go to the convenience to pass urine. She had bled during the procedure, which stopped shortly after. There was no associated history of the passage of faeces, abdominal swelling, or change in bowel habits, but the bulge in the vagina was still there.

All her previous seven deliveries were at home, and she could not remember any labour and delivery difficulties. There was no history of chronic cough, but she had engaged in physical farm labour during her active years. She had not smoked any cigarettes. Before presenting to the traditional healer, she had sought treatment for the protrusion at a General Hospital and a Private Hospital in her locality.



Figure 1 The fistula with uterine sound passed through the external urethral orifice.

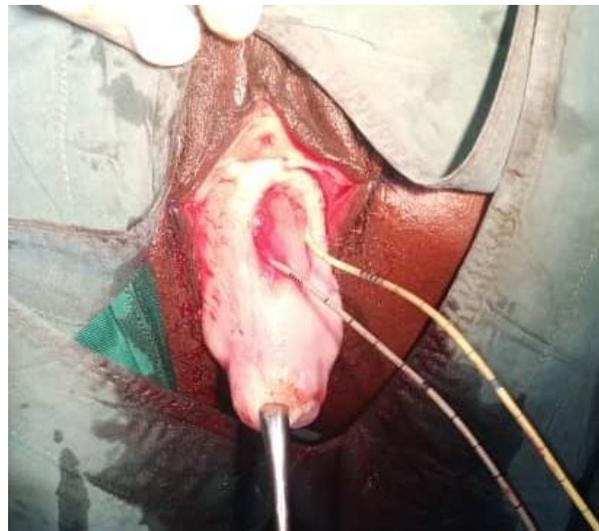


Figure 3 ureteric catheters in situ to protect the ureters.

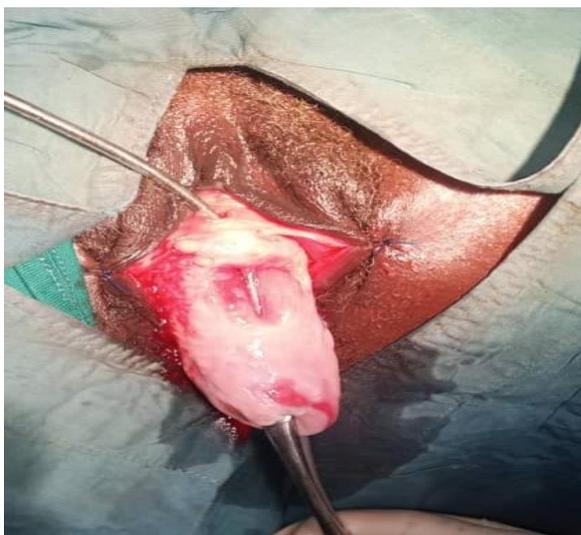


Figure 2 Uterine sound illustrating the extent of the fistula with vulsellum holding the cervix



Figure 4 Post-surgery, with Foleys and ureteric catheters in situ

She attained menarche at the age of 14 years and has had regular menstrual cycles for most of her reproductive life; the last menstrual period was 12 years ago. She was not aware of modern contraceptive methods. She is not a known hypertensive or diabetic. She is married in a polygamous setting of 3 wives and had no formal education. Her husband was a farmer.

Examination revealed a woman that was looking healthy. Her pulse rate was 89 beats per minute, regular and good volume. Her blood pressure was 145/95mmHg; heart sounds were normal first and second heart sounds and no murmurs.

There was no area of tenderness and palpable organ enlargement in the abdomen. Pelvic examination revealed wet perineum with dermatitis, atrophic vulva and vagina with no evidence of female genital mutilation. A patent urethra which was 2cm in length, was noted, and bladder depth was 9 cm with no bladder stone. A fistula about 2 cm from the external urethral orifice measuring about 5cm by 4cm (Figures 1 and 2) was noted, with urine jetting out of the exposed ureteric orifices. There was no vaginal fibrosis. An assessment using Kees Waaldijk's classification of VVF revealed type 11Ba Fistula.

A stage 4 uterovaginal prolapse (pelvic organ quantification system) with healed scars, the cervix was healthy looking.

Screening tests for human immunodeficiency virus (HIV), Hepatitis B and Hepatitis C were all negative. Her haematocrit was 12g/dl, and her blood group was O rhesus positive. Two units of blood were crossmatched in preparation for surgery. Her electrolytes, Urea and creatinine, were within normal ranges. Chest X-ray showed mitralization of the left border of the heart, and abdominal sonography was essentially normal. A diagnosis of Kees type 11Ba fistula and Stage 4 uterovaginal prolapse (POPQ-System) was made.

She was counselled and consent was obtained in preparation for surgery which involved repair of the Fistula, vaginal hysterectomy, and pelvic floor repair.

Under spinal anaesthesia, the patient was placed in exaggerated lithotomy position, cleaned and draped. The ureteric orifices were catheterised with size 5 ureteric catheters to protect the ureters during repairs, as shown in Figure 2. The vaginal mucosa was dissected off the Fistula to ensure tension-free closure, and the Fistula was repaired with vicryl 2/0 interrupted sutures in a single layer.

A dye-test was performed after the procedure to confirm closure of Fistula and was negative.

The vaginal mucosa dissections were extended laterally and posteriorly. The uterosacral ligament complex was clamped and divided, followed by the uterine artery pedicle and the tuboovarian and round ligament pedicle sequentially on both sides to deliver the uterus. Mc Calls culdoplasty was done. Anterior colporrhaphy and posterior colpo-perineorrhaphy were done to complete the operation. She had a urethral catheter for 14 days and was discharged dry after 21 days on admission. She subsequently had follow-up visits at one month and three months post-discharge respectively with a satisfactory outcome

## DISCUSSION

VVF usually results from obstetric interventions or gynecological surgery, and in developing countries, most occur in women of reproductive age<sup>2,3,5</sup>. However, this case is unusual as it occurred in a post-menopausal woman due to misadventure by a traditional healer. A case of lower urinary tract injury in a woman with stage 3 prolapse resulting in VVF from cow-horn injury has also been reported by Mengistu and colleagues<sup>6</sup>. Similar to our case, she presented with urinary incontinence after the injury, and the ureters were also exposed. However, her case was due to the cow horn injury on the prolapsed organs in contrast to the traditional healer's injury in our case. Traditional healers exist in most African societies, but 'surgical' treatment by these practitioners is not as common as the use of herbs and animal products<sup>7</sup>. They are known to offer circumcision for both sexes and removal of tonsils and tribal marks<sup>8,9</sup>, but we are not aware of traditional 'treatment' of prolapsed pelvic organs by barbers and had not seen reports of similar case in the literature. In this case, the Barber shaved off the anterior vaginal wall and the bladder wall leaving an extensive fistula with exposed ureteric orifices. As with other causes of VVF, the presentation is uncontrollable leakage of urine, which made this patient present to our facility. She had sought treatment in other facilities with no satisfactory outcome. She was subsequently evaluated and prepared for surgery. Surgery is the mainstay of treating VVF, regardless of whether it is due to obstructed labour or iatrogenic causes<sup>10</sup>.

The principles of fistula surgery include adequate dissection/exposure, closure under no

tension and protection of the ureters as indicated<sup>11</sup>. She had adequate dissection as there was no scarring of the area, and the ureters were protected using ureteric catheters. An adequate mobilisation was done to ensure closure of the bladder under no tension. The outcome was satisfactory at discharge, a month and three months after the repair. This is in keeping with the better outcome of iatrogenic Fistula compared to that caused by prolonged obstructed labour. While the pathophysiology of VVF from obstructed labour is ischaemic necrosis, that of iatrogenic is not; hence the state of the tissues is usually better in iatrogenic cases accounting for the better outcome<sup>10-12</sup>.

As the uterus was prolapsed, a concurrent hysterectomy was done to take care of the pelvic organ prolapse that made her seek treatment in the first instance. She did well post-surgery, and the patient was satisfied with the outcome of the intervention. Histology revealed a normal atrophic uterus and cervix with no evidence of malignancy.

Mrs RA had uterovaginal prolapse which is a common condition in multiparous woman in her age group and presented to two facilities with no satisfactory outcome. She eventually went to a traditional healer, where she acquired a fistula with no resolution of her pelvic organ prolapse. She subsequently ended up at a Fistula Centre 2 years after her travail and was treated. The case illustrates a familiar journey of many a woman through the various actors in the health care system of a developing country in sub-Saharan Africa. The place of traditional healers in the health care system in our setting seemed to be well recognised in the various communities<sup>7</sup>. There is a need to intensify health education and policy regulation to influence and improve their practice to minimise the adverse effects of their practice. Community engagements with stakeholders are necessary to improve the outcome for the populace.

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