

## Experience with the Repair of Vesico-Vaginal Fistulas in a Non-Conventional Setting in Sub-Sahara Africa

A.J. Umoiyoho<sup>1</sup>, A.M. Abasiattai<sup>2\*</sup>, O.E. Akaiso, S.J. Etuk and E. Okoi

<sup>1</sup>Department of Obstetrics/Gynaecology, University of Uyo Teaching Hospital, Uyo, Nigeria.

<sup>2</sup>Department of Obstetrics/Gynaecology, University of Calabar Teaching Hospital, Calabar, Nigeria  
Pro-Health International, Nigeria.

Department of Surgery, University of Uyo Teaching Hospital, Uyo, Akwa Ibom State, Nigeria.

**Abstract:** This study highlights the experience of repairing vesico-vaginal fistulas in health outreach programs in Sub-Saharan Africa. Twenty-six cases of vesico-vaginal fistula were repaired during five missions held between 2006 and 2007. All 26 patients remained continent 21 days after surgery. Fistula repair in un-conventional settings holds great promise and has a role to play in reducing the unmet need for fistula repair in low resource settings.

**Keywords:** Vesico-vaginal fistulas, repair, non-conventional setting.

### Introduction

Among all the morbid conditions that affect women, vesico-vaginal fistula (VVF) is the most debilitating and devastating (1). Disappointingly too, its incidence is not reducing in the developing countries. According to the World Health Organization (WHO), about 2 million women are afflicted with VVF worldwide (2). Available evidence indicates that Nigeria harbours 40% of these with as many as 20,000 new cases occurring every year (3). Browning and Patel (4) estimated that it would take at least 400 years to clear the backlog of VVF patients waiting for repair provided there were no more new cases. This unfolds the unmet need of surgical repair particularly in the developing countries.

In October 2002, Engender health reported that only 33 surgeons repair VVF in Nigeria (5). Of the 2,286 cases repaired annually across the country, only 6.8% of them were repaired in the country's tertiary hospitals while 93.2% were repaired in specialist VVF centres. In addition, 10% of these specialist VVF centres are in the form of non-conventional settings.

Hence, transportation to these centers could from a major barrier to patients obtaining care.

Realizing this Pro-Health International (PHI), a non-Governmental non-profit organization that offers free health care to the poor and needy at their door steps in rural communities in Africa, initiated a program of training of gynaecologists' on the repair of obstetric fistulas. The first author happened to be one of the beneficiaries of this training and has since been offering these services in non-conventional settings through PHI. This report highlights the experience gained by the authors. It is hoped that this will stimulated the interest of many clinicians in Africa to get involved in VVF repair in order to salvage these young but unfortunate women.

### Setting

PHI usually uses any health facility close to or in the community it intends to offer health care. These are mostly primary or secondary health care facilities. However, health care facilities can be rural or urban, and can be in conventional or non-conventional settings.

and nurses and other ancillary health staff in the center who will be involved in the pre-and-post operative care of the patients. About five missions were undertaken by the PHI-VVF team between 2006 and 2007. The first mission was in Burundi in Central Africa while the others were held in Adamawa, Taraba and Cross River States in Nigeria.

### Methods

For each patient who presented for treatment, the following data were obtained: age, parity, marital status and educational level. The haemoglobin level was assessed and the fistulas were classified according to that proposed by Lawson (6). Simple fistulas were selected for repair. Those with complicated fistulas, including those with partial or total loss of the urethra were referred to specialist centers. Follow up was done by phone calls and continent tests were carried out by the medical officer in the center.

### Results

During the five missions, 48 cases of VVF presented. However 26 cases were selected and repaired. The

Table 1: Socio-demographic characteristics of the patients

Variable	No. (%)
<b>Age</b>	
16-20	13(50.0)
21-25	5(19.2)
26-30	2(7.7)
31-35	1(3.8)
36-40	1(3.8)
41-45	3(11.5)
<b>Parity</b>	
0	1(3.8)
1	21(80.8)
2	1(3.8)
3	1(3.8)
4	1(3.8)
<b>Marital status</b>	
Married	10(38.5)
Divorced	13(50.0)
Single	3(11.5)
<b>Educational level</b>	
Primary	13(50.0)
Secondary	13(50.0)
Tertiary	0(0.0)

socio-demographic characteristics of the patients are shown in Table 1. The modal age group was 16-20 years (50.0%). Majority of the patients were primiparous (80.8%) and had primary level education (76.9%), while 50.0% were divorced.

Twenty five patients (96.2%) had pre-operative haemoglobin levels above 11 grams/deciliter while 3.8% of the patients were anaemic at presentation (Table 2). Juxta-cervical fistulas were the most common fistulas encountered (53.8%) while mid vaginal (15.4%) and large fistulas (7.7%) were the least (Table 3). All 26 patients (100%) remained continent after 21 days of surgery.

Table 2: Preoperative haemoglobin level and type of VVF

Variable	No. (%)
<b>Type of VVF</b>	
Juxta-cervical	14(53.9)
Juxta-urethral	6(23.1)
Mid-vaginal	4(15.4)
Very large	2(7.7)
<b>Pre-operative haemoglobin (g/dl)</b>	
<11	1(3.8)
11-12	18(69.2)
12-13	4(15.4)
13-14	3(11.5)

### Discussion

This study highlights the important role selective repair of obstetric fistulas in non-conventional setting. Trained personnel can play in reducing the number of women living with this devastating condition. Obstetric fistulas which are virtually solely caused by neglected or prolonged obstructed labour, remain one of the most neglected issues in reproductive health today (8). Though its exact incidence is difficult to ascertain as many women with fistulas do not seek treatment, majority of these affected live in poor resource countries of Sub-Saharan Africa (6).

Nigeria currently has one of the highest prevalence of obstetric fistulas with about 400,000-1,000,000 women currently living with fistulas (3). However, because of poverty and also scarcity of health



each year (9). Majority of the patients with obstetric fistula are young, very poor, illiterate or barely literate and already ostracized from their families (9). Hence, most of the fistula repairs are performed in the specialist VVF centers which essentially offer free services (3). However, these centers are few and are un-evenly distributed in the six geo-political zones of Nigeria.

To greatly assist in reducing the backlog of VVF cases and indeed bring succor to these unfortunate women, performing fistula repair in non-conventional settings through health outreach programs has the advantage of providing repair services to the poor women in very remote areas who have little or no access to conventional obstetric services.

Though the total number of cases repaired in our series were relatively small, our results indicate that fistula repair in un-conventional settings holds great promise and definitely has a role to play in reducing the unmet need for fistula repair in low resource settings. In our series, all the fistulas were successfully repaired and the patients remained continent of urine after surgery. Successful fistula repair usually depends on the initial state of the fistula, the skill of the surgeon, and quality of postoperative care.

There is still a large unmet need for repair of obstetric fistulas in Africa. Health care systems in developing countries must strive to improve their ability to meet the need of treating obstetric fistulas, Governments and concerned voluntary organizations with interest in maternal health can greatly contribute to reducing this devastating complication of obstructed labour and help clear the alarming backlog of untreated fistulas by taking fistula repair to the door steps of the patients through outreach health programmes in non-conventional settings.

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#### References

1. Angioli, R., Gomer-Marin O., Canturia G, O' Sullivan and M.J. (200). Severe perineal laceration during vaginal delivery: The University of Miami experience. *Am. J. Obstet. Gynaecol*; 82 (5):1083-5.
2. Harrison, K.A. (1983). Obstetric fistula: one calamity too many. *BJOG*; 9(5): 385-6.
3. Shittu, O.S., Ojengbede, O.A. and Wara, L.H.I. (2007). A review of postoperative care for obstetric fistulas in Nigeria. *IJOG*; 99: 579-584.
4. United Nations Population Fund (UNFPA) and Engender Health (2003). *Obstetric fistula needs assessment: findings from nine African countries*. New York, NY: UNFPA; [www.unfpa.org/profile/nigeria.cfm](http://www.unfpa.org/profile/nigeria.cfm).
5. Wall, L.L. (1996). Obstetric fistulas in Africa and the developing world: new efforts to solve an age-old problem. *Women's health issues*; 6(4): 229-234.
6. Lawson, J.B. (1968). Birth-canal injuries. *Proc. R. Soc. Med.* 61:368-70:
7. de Benis, L. (2007). *Obstetric fistula: Guiding principles for clinical management and programme development, a new WHO guideline*. *IJOG*; 99:5117-5121.
8. Ojengbede, O.A. and Morhason-Bello, I.O. (2007). Local anaesthesia: An appropriate technology for simple fistula repair. *IJOG*; 99:575-578.