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PREVALENCE OF HYPERTENSION AMONG OBSTETRIC FISTULA PATIENTS IN ABAKALIKI, NIGERIA: ONE YEAR REVIEW

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ABSTRACT

Background: Obstetric fistula is a condition in which the affected woman suffers from psychosocial, emotional and physical health challenges in addition to the direct symptoms and complications of the fistula. This study aimed to assess the prevalence of hypertension in obstetric fistula patients. **Materials and Method:** This a retrospective descriptive study carried out at the National Obstetric Fistula Centre, Abakaliki, Ebonyi State, South-East Nigeria. Data were retrieved from the case record of patients and a well –structured pro-forma was used to document information extracted from the case notes of all obstetric fistula patients attended to over a period of one year between August, 2016 and July, 2017.Analysis was done using SPSS version 20. Simple frequencies and percentages were calculated. **Result:** One hundred and thirteen patients had systolic blood pressure less than 140mmHg accounting for 83% of the total number of patients. Blood pressure was found to be between 140mmHg and 159mmHg in 11% of patients while 5.9% of patients had readings of 160mmHg and above. One hundred and four patients (76.2%) had diastolic blood pressure less than 90mmHg while 13.2% of patients had diastolic blood pressure between 90 and 99mmHg. Blood pressure of 100mmHg was recorded 10.3% of patients.

KEYWORDS: Hypertension, Obstetric fistula, Prevalence, Blood Pressure.

INTRODUCTION

Obstetric fistula is one of the most dramatic physically, psychologically, and socially damaging, yet preventable, complications of childbirth.[1] It is a devastating maternal morbidity that results from complications during delivery. It occurs when there is direct communication between genital tract and bladder and/or between genital tract and rectum, following labour and delivery. It is formed most commonly between the bladder and vagina (vesicovaginal fistula), the rectum and vagina (rectovaginal fistula), or both. Obstetric fistula is mostly seen in sub-Saharan Africa and South Asia where there is limited access to obstetric services. It is estimated that over 2million women live with obstetric fistula in sub-Saharan Africa and Asia. Annually, between 50,000 and 100,000 cases are reported.[2]

Eighty to Ninety percent of obstetric fistula cases are due to prolonged obstructed labour from cephalopelvic disproportion or malpresentation due to lack or poor access to emergency obstetric care.[3] In obstructed labour, the foetal head becomes impacted in the maternal pelvis, cutting off blood flow, resulting in fistula formation due to pressure necrosis. Some factors that predispose to obstructed labour are common in countries with high prevalence of obstetric fistula. The identified predisposing factors are age, stature, parity, duration of labour, chronic anaemia, malnutrition especially vitamin D deficiency associated with development of a small pevis.[4] Other obstetric causes of genital fistula include instrumental vaginal delivery, destructive delivery, caesarean section, caesarean hysterectomy, traditional practices such as Yankan Gishiri and rarely symphysiotomy.[5] The non-obstetric causes include coital injuries, insertion of corrosive substances into the vagina, granulomatous infections, genital malignancies (especially advanced carcinoma of the cervix), radiotherapy and following pelvic surgery.

Women with obstetric fistula suffer from urinary and/or fecal incontinence. The symptoms also include ammoniacal dermatitis, recurrent bladder infections, amenorrhoea, infertility and unpleasant odour.[6]

The recurrent urinary tract infection in obstetric fistula patients often persist for years predisposing them to kidney injury with hypertension as one of the features and/or complications.[7,8] Studies have shown that uncontrolled hypertension is responsible for 7.5million deaths per year globally.[9]

Obstetric fistula is largely amenable to surgical treatment and a cure rate of 85 -95% has been reported with the first repair.[6] However successful surgical repair will not mean a restored health state if a condition like hypertension is not identified and treated appropriately. Knowing the prevalence of hypertension in obstetric fistula patients may help the caregiver to have a high index of suspicion and put in place necessary preventive and management measures. Therefore, there is need to determine the prevalence of hypertension in this group of patients which this study is set out to achieve.

MATERIALS AND METHODS

This study was carried out at the National Obstetric Fistula Centre, Abakaliki, Ebonyi State, South-East Nigeria. The hospital serves as a referral centre for fistula repair for women from the South-East, South-South, South-West and North-Central geopolitical zones of Nigeria. The hospital equally serves as a training centre for medical and paramedical personnel in the area of fistula repair and other maternal health service provision.

This is a retrospective descriptive study. A well – structured pro-forma was used to document information extracted from the case notes of all obstetric fistula patients attended to over a period of one year between August, 2016 and July, 2017.

Data was analysed using SPSS version 20. Simple frequencies and percentages were calculated.

Ethical clearance was obtained from the ethical committee of the National Obstetric Fistula Centre, Abakaliki.

RESULT

One hundred and thirty six obstetric fistula cases were operated at the National Obstetric Fistula Centre, Abakaliki between August, 2016 and July 2017. One hundred and five patients (77.2%) had vesicovaginal fistula (VVF), while uterovesical fistula and rectovaginal fistula cases accounted for 11.8% and 8.8% respectively. Uterovaginal fistula was found in 2.2% of the patients (Table 1).

The mean age was 32.96±9.0 with a range of 19-60 years. Patients between 20-30 years formed 78.7% of the population while 19.8% of patients were 40 years and above (Table 2). Most patients (98, 72.1%) were married while 16.2% of patients were separated or divorced. Single and widowed patients had the same proportion that is, 5.9% apiece (Table 3). Most married women (88.8%) were married in a monogamous setting while 11.2% were married in a polygamous setting. Forty patients (29.4%) had no formal education, 35(25.7%) had only primary education, 47(34.6%) had only secondary education while the smallest proportion of patients (14, 10.3%) had tertiary education (Table 4).

Most patients were petty traders (52, 38.2%) while farmers, artisans, civil servants, students and apprentices accounted for 25.7%, 19.1%, 6.6%, 2.2% and 0.7% of patients respectively. The unemployed group accounted for 7.4% of the population (Table 5). The husbands of most of the patients who were married were artisans (33, 33.7%) while 31(31.6%) were farmers.

One hundred and thirteen patients had systolic blood pressure less than 140mmHg accounting for 83% of the total number of patients. Blood pressure was found to be between 140mmHg and 159mmHg in 11% of patients while 5.9% of patients had readings of 160mmHg and above (Table 5). One hundred and four patients (76.2%) had diastolic blood pressure less than 90mmHg while 13.2% of patients had diastolic blood pressure between 90 and 99mmHg. Blood pressure of 100mmHg was recorded 10.3% of patients (Table 6).

Only one patient had history of hypertension before the onset of obstetric fistula. Two patients had history of diabetes mellitus. The two patients were the only two who were overweight. None of the patients had history of chronic kidney disease and only two patients had positive history of hypertension in a first degree relation.

One hundred and thirteen patients had systolic blood pressure less than 140mmHg accounting for 83% of the total number of patients. Blood pressure was found to be between 140mmHg and 159mmHg in 11% of patients while 5.9% of patients had readings of 160mmHg and above (Table 5). One hundred and four patients (76.2%) had diastolic blood pressure less than 90mmHg while 13.2% of patients had diastolic blood pressure between 90 and 99mmHg. Blood pressure of 100mmHg was recorded 10.3% of patients (Table 6).

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Table 1: Type of Obstetric fistula.

Type of obstetric fistula	Frequency	Percentage (%)
Vesicovaginal fistula (VVF)	105	77.2
Uterovesical fistula (UVF)	16	11.8
Rectovaginal fistula (RVF)	12	8.8
Ureterovaginal fistula	3	2.2

Table 2: Age class.

Age class	Frequency	Percentage (%)
<20 years	2	1.5
20-39 years	107	78.7
≥40years	27	19.8

Table 3: Marital status.

Marital status	Frequency	Percentage (%)
Married	98	72.1
Widowed	8	5.9
Separated/Divorced	22	16.2
Single	8	5.9

Table 4: Level of education.

Educational status	Frequency	Percentage (%)
No formal education	40	29.7
Primary education	35	25.7
Secondary education	47	34.6
Tertiary education	14	10.3

Table 5: Systolic blood pressure.

Blood pressure (mmHg)	Frequency	Percentage (%)
<140	113	83.1
140-159	15	11.0
≥160	8	5.9

Table 6: Diastolic blood pressure.

Blood pressure (mmHg)	Frequency	Percentage (%)
<90	104	76.5
90-99	18	13.2
≥100	14	10.3

DISCUSSION

Obstetric fistula is a devastating condition ravaging developing countries. The stigma associated with the condition is difficult to quantify as many women with obstetric fistula will attempt to conceal the symptoms and the attendant complications.[10] Hypertension is the most common cardiovascular condition in Africans.[11]

Vesicocovaginal fistula was found to be the commonest in this study which is comparable to findings in previous studies.[12,13] The mean age in this study was 32.96±9.0 and this is similar to the mean age of 35±9.5 found in an earlier study at the study site.[14] About three-quarters of women studied were married while about 16% were divorced or separated. This is similar to what was found in a Zambian study, where three quarters of women with fistula were married and 15.1% were divorced.[15]

About 30% of patients had no formal education in this study. This is not at variance with the Zambian study where it was realised that the level of education in obstetric fistula patients was lower than the national averages.[15] In this study about two-thirds of the patients were into farming and petty trading and a significant number of them had no appreciable source of income. This is similar to what was found in previous studies in which it was noticed that over a quarter of the patients had no palpable means of livelihood and came from economically marginalised regions of the world.[14,15]

The prevalence of hypertension in this study was 23.5%. Systolic blood pressure was found to be mildly elevated in 11% of patients and severely elevated in 5.9% of the patients in this study. The diastolic blood pressure was mildly elevated in 13.2% while 10.3% of patients had severely elevated blood pressure. The prevalence of hypertension in this study is far higher than 10% that was recorded in rural India.[16] The difference may be explained by the psychosocial and emotional stress obstetric fistulae patients are exposed to or possibly the secondary causes of hypertension from chronic and persistent urinary tract infection and of course not forgetting the higher level of predisposition of blacks to hypertension.[7,8,11]

In this study, the prevalence of hypertension is equally higher than what was found in a study done in Sudan which recorded a prevalence of 7.5%.[17] This difference in prevalence can be adduced to other causes and/or predisposition other than the black gene. In a study carried out in South-south Nigeria the prevalence of hypertension was found to be 18.3%.[18] However, similar to what was found in this study, a prevalence of 23.6% was found in Cross-River and Akwa-Ibom States of Nigeria.[19] Higher prevalence was recorded among residents of Ile-Ife, South-west Nigeria which was put at 36.6%.[20]

Most studies with higher prevalence had higher mean ages and a mixed population where it has been discovered that prevalence of hypertension is associated with advanced age and higher in males than females.[17,21,22] Only one patient was a known hypertensive before the onset of obstetric fistula. Very few patients had predisposing factors such as overweight, chronic kidney disease, diabetes mellitus and chronic kidney diseases. In previous studies, hypertension was found to be associated with overweight and obesity.[22,23]

Therefore considering the high prevalence of hypertension in this group of patients in the absence of other predisposing factors apart from obstetric fistula, it is important to pay attention to the fact that hypertension can be a co-morbidity in an obstetric fistula patient.

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