

# Vesico-Vaginal Fistula: A Health Problem Among Young Women In Nigeria

Ogidinta Charles

Ph.D Student, Public Health Department, Adeleke University, Ede, Nigeria

## **Abstract:**

**Background:** Vesico-vaginal fistula is a breakdown of tissue into the vaginal wall. It causes urinary incontinence among young women in our society. It usually results from unrelieved obstructed labor, caesarean section and uterine rupture. The disease incapacitates victims for months and sometimes for years, causing untold hardships to the victims, their families and the community at large. This abnormality is mostly as a result of childbirth, home delivery, early marriage, obstructed labor, and unskilled birth attendant, economic and socio-cultural factors. This terrible health condition often leads to isolation of the victim in a way that may cause social and psychological consequences.

**Objective:** To review the causes, complications, and outcome of vesico-vaginal fistula in Nigeria.

**Methods and Materials:** Studies on vesico-vaginal fistula were searched on the internet. Information was obtained on Pubmed (medline), WHO website, Bioline International, African Journal on Line, Google scholar, Yahoo, Medscape, Fistula care plus and e Medicine.

**Results:** Many Nigerian women are living with vesico-vaginal fistula. The annual obstetric fistula incidence is estimated at 2.11 per 1000 births. It is more prevalent in northern Nigeria than southern Nigeria. Obstetric fistula accounts for 84.1%–100% of the vesico-vaginal fistula and prolonged obstructed labor is consistently the most common cause with about (65.9%–96.5%) in all the series. Other common causes include caesarean section, advanced cervical cancer, uterine rupture, and Gishiri cut. The identified predisposing factors were early marriage and pregnancy, which were rampant in northern Nigeria, while unskilled birth attendance and late presentation to the health facilities was common nationwide. Among the significant contributory factors to high rate of unskilled birth attendance were poverty, illiteracy, ignorance, restriction of women's movement, non-permission from husband, and transportation. Pregnancy outcome was dismal in most cases related to delivery with still birth rate of 87%–91.7%. Stigmatization, divorce and social exclusion were common complications. Overall fistula repair success rate is between 75% and 92% in a few centers that offer such services.

**Conclusion:** Vesico-vaginal fistula is a preventable condition, which is prevalent in Nigeria and most poor resource countries of the world. Majority of vesico-vaginal fistula patients are non-literate from poor homes and obstetric factors are mostly implicated. It is a public health issue of concern.

**Keywords:** Vesico-vaginal fistula, Etiology, Contributory factors, Complication, Nigeria.

**Abbreviations:** VVF- Vesio Vagina Fistula

## I. INTRODUCTION

Vesico vaginal fistula (VVF) is a health problem of women worldwide. It is one of the most disturbing health problems of women of child bearing age in our communities

today. Vesico vaginal fistula is fast becoming one of the most debilitating factors hindering the development of the womenfolk. It is an abnormal opening between the bladder and the vagina that results in continuous and unremitting urinary incontinence. About half a million women die yearly

from causes related to pregnancy and delivery and for each maternal death approximately 10–15 other women sustain serious morbidity including vesico-vaginal fistula. Vesico-vaginal fistula appears to have been in existence since antiquity evident by references made to genital fistula in Ebers papyrus and in an Egyptian mummy in 2000 BC and 2050 BC respectively. Vesico-vaginal fistula is a preventable disease, but is prevalent among the less privileged and marginalized members of the population; poor, young, illiterate girls and in the remote rural areas of the world, where access to emergency care, family planning services and skilled birth attendance are not provided and where provided are poorly utilized.

**Incidence:** There are large differences in the incidence of vesico-vaginal fistula among populations. Although the incidence of Vesico-vaginal fistula has become rare in the industrialized world, they are still common in developing countries. Globally, over two million women are estimated to be living with vesico-vaginal fistula and majority are in Sub-Saharan Africa and South Asia. The incidence rates of vesico-vaginal fistula in West Africa range between 1– 4 per 1,000 deliveries. An annual obstetric fistula incidence is estimated at 2.11 per 1000 births from 100,000–1,000,000 Nigerians live with obstetric fistula. Over 70,000 Bangladesh women live with obstetric fistula and about 9,000 new cases occur each year in Ethiopia. Ibrahim *et al.* emphasized, as have others working in the largely Muslim culture of northern Nigeria, the high prevalence of early marriage and childbearing, the low literacy rate, and the poor uptake of conventional antenatal care among the fistula patients. Probably the most important factors contributing to the high incidence and prevalence of obstetric fistulas in Africa are socio-economic. Early marriage, low social status for women, malnutrition, and inadequately developed social and economic infrastructures are all more common in the poor areas. It is however not impossible that some of these incidences/ prevalence are under reported. Prolonged obstructed labor is the cause of vesico-vaginal fistula in the developing countries. It is one of the five leading causes of maternal mortality in Nigeria and accounts for 8% of global maternal deaths. Obstructed labor- vesico vaginal fistula complex is rarely encountered in the industrialized countries of the world, this is one of the most visible indicators of the enormous gap in maternal health care between the developed and developing countries. Efforts are being made by some governmental and non-governmental organizations to reduce the incidence of or eradicate vesico-vaginal fistula. Among them are some northern Nigeria state governments, World Health Organization and UNFPA to mention but few.

Many studies in Nigeria have described varying contributing factors to vesico-vaginal fistula. These studies were conducted in various parts of the country. Vesico-vaginal fistula is still common despite its preventable nature. Hence, the rationale for this review document is to show the need for more proactive measures in order to curb the menace.

The objective of the study is to review the contributory factors and causes of vesico-vaginal fistulas, associated conditions/ complications and outcome of vesico-vaginal fistula repair.

## II. MATERIALS AND METHODS

The author reviewed all accessible relevant published studies on vesico-vaginal fistula in Nigeria and excluded papers that did not address the issues examined in this review. Studies on vesico-vaginal fistula was searched on the internet. Information was obtained on Pubmed (medline), WHO website, Bioline international, African journal on line, Google scholar, Yahoo, Medscape and e medicine. There was no relevant information on the database of the Cochrane library, WHO Reproductive health library, and Nigerian Journal of surgery web site. In addition, information from textbooks were also used. The profile analyzed included patients age, age at marriage, level of education, occupation, antenatal booking status, place of delivery and mode of delivery. Other information included reasons for delay in seeking care, etiology of vesico-vaginal fistula, perinatal outcome, complication with vesico-vaginal fistula, and vesico-vaginal fistula repair outcome.

The limitation of the study is that all the reviewed studies are health facility based. Some victims VVF are afraid of being noticed and stigmatized.

## III. RESULTS

In Kano series, 120 vesico-vaginal fistula patients were admitted in two months. Maiduguri, Jos and Sokoto studies reported 241 cases in two years, 932 cases in seven and half years 20 and 31 cases in one year respectively. Forty-four cases in ten years and 27 cases in years were seen in Ilorin and Sagamu respectively. Waaldijk managed 1,716 fresh obstetric fistula cases (VVF of less than three months duration) in nine years in Katsina and Kano fistula centres. Inimgba *et al* in Port Harcourt reported the lowest rate of 45 cases in 14 years. Recto-vaginal fistula coexisted with vesico-vaginal fistula in 12.5%, 11% and 6% of cases in Sagamu, Jos and Kano studies respectively. Foot drop was present in 23% of cases in Kano series. Tsui *et al* analyzed data on 3,552 deliveries in Nigeria (1996–1999) with logistic regression models and found the annual obstetric fistula incidence estimated at 2.11 per 1000 births.

**Age at Marriage:** Most of the vesico-vaginal fistula patients in northern Nigeria had early marriage; 93.6% of Sokoto patients were married before or at 18 years of age, and 81.5% of Kano patients and 52.3% of Maiduguri fistula patients got married by 15 years of age. The mean age of marriage for Sokoto fistula patients were 13 years and 15.5 years for Jos patients. In the series by Wall *et al* in Jos, 39.1% of the patients were married before attaining menarche. From prospective comparative study of obstetric fistula in Gombe, the average age at first marriage was 14 years for the obstetric fistula patients compared with 21.3 years for the controlled group.

**Age at Presentation:** The highest frequency age group was 20- 29 years age bracket in Sagamu (58.3%) and Inimgba in Port Harcourt (52.5%). In Maiduguri, 20–24 years age bracket had the peak frequency of VVF cases (33.8%), followed by 15–19 years age group (21.3%). The peak age group of occurrence of vesico-vaginal fistula was 10–18 years, Sokoto

(90%), Kano (72.5%) and Maiduguri studies (58.8%). Patients younger than 16 years accounted for 42.4% in Waaldijk's series.

**Parity and History of Preceding Pregnancy:** Primi-paras were the affected group in most centers in Nigeria namely; Sokoto (81%), Jos (45.8%), Ilorin (43.2%), Sagamu (50%) and Maiduguri (51.3%). In Port Harcourt, many of the patients were multiparas (64.5%). Majority of obstetric fistula patients did not receive antenatal care during pregnancy. In the series from Sokoto, Kano and Jos, 72–77% of the patients did not receive antenatal care respectively. About 90% of Maiduguri patients, 70.8% of Sagamu patients and 47% of Jos patients had unskilled birth attendance in preceding pregnancy. Only 3.8% of Obstetric fistula patients in Gombe had a live birth in preceding deliveries. Pregnancy outcome was dismal in most cases related to delivery. Still birth rate of 87% – 91.7% were recorded in Jos, Ile-ife, and Sokoto respectively.

**Etiological Factors:** The entire vesico-vaginal fistulas recorded in Sokoto were obstetric related while 84.1%, 94.4% and 95.6% obstetric fistulae were reported by Ijaiya et al in Ilorin, Orji et al in Ile-Ife<sup>4</sup> and Inimgba *et al* in Port Harcourt respectively. Prolonged obstructed labor was the most common cause of vesico-vaginal fistula in all the series in Nigeria, where it accounted for 65.9%–96.5% of cases in Jos, Sagamu, Port Harcourt, Maiduguri and Ilorin. Gishiri cut (incision made on the anterior vaginal wall by Hausa traditional health practitioners to treat infertility, amenorrhea or to relieve obstructed labor) accounted for 6.2% cases in Maiduguri and 2.3% cases in Jos. No case of Gishiri cut was recorded in Sagamu, or Ilori. Other common causes included gynecological operations, advanced cervical cancer, caesarean section, forceps delivery, uterine rupture, craniotomy and traumatic vaginal laceration from fall.

**Reasons for Delay in Seeking Care:** Data from Jos on reasons for delay in seeking care in obstructed labor cases included non-permission from husband/family to seek emergency obstetric care (28%), lack of accessible transportation (25%) and attempted traditional remedies (7.4%). Other reasons were unawareness of availability of hospital obstetric care (6.5%), unavailability of health facility (5.6%), while 26.8% had no reason.

**Gynaecological Complications:** In Kano, vulvar dermatitis (31.0%) was the most common complication followed by secondary amenorrhea. The latter was the most common gynecological complication among VVF patients in South Eastern Nigeria and Ilorin. Other complications included gynaetresia, dyspareunia and infertility.

**Outcome of Vesico-vaginal Fistula Repair:** Overall success rates of vesico-vaginal fistula repair were 92%, 75% and 87.9% in Jos, Port Harcourt and Ilorin series respectively. In Ile-Ife, the overall success rate was 91.5%.

#### IV. CONCLUSION

Vesico-vaginal fistula is a preventable condition. The true incidence and prevalence of this condition in the communities are unknown and impossible to obtain since the areas with high overall prevalence are those where cases are unknown to medical services and poor general epidemiological data

collection. Many of the obstetric fistula patients from the northern Nigeria are teenagers. The youngest age of patient with obstetric vesico-vaginal fistula in Nigeria was 10 years as reported by Kabir et al in Kano. The average age of vesico-vaginal fistula patients in studies from northern Nigeria are 13 years for Sokoto and 17.5 years for Maiduguri, while Port Harcourt, Ilorin, and Sagamu patients mean ages are 26.8 years, 29.3 years and 30.2 years respectively. A marked difference in the age at marriage in the regions of Nigeria exists. Early marriage is commonly practiced in the northern part of Nigeria, and sometimes girls are given out in marriage before or shortly after attaining menarche as reported by Lewis et al in Jos, where 39.1% of the patients were married before attaining menarche. All Nigerian studies but one (Port Harcourt study) revealed that primi-parous women were the most vulnerable group. Other common causes include uterine rupture, advanced carcinoma of the cervix, caesarean section, forceps delivery, craniotomy and Gishiri cutting, which is peculiar to the Hausa people of the northern Nigeria. Occasionally, cases of vesico-vaginal fistula secondary to insertion of corrosive substances into the vagina, straddle injury and female genital cutting are encountered in Nigeria.

Many health facilities that provide basic and comprehensive emergency obstetric care are understaffed, without partograph for monitoring labor or proper referral backup. A successful surgical repair of vesico-vaginal fistula depends on numerous factors such as fistula size, site, surgeons' skill, surgical technique and post-operative management. The success rate is high in the few centers that offer vesico vaginal fistula repair (ranges between 75% and 92%) such as the National Fistula Center in Abakiliki, Ebonyi state in Nigeria. A successful repair restores patient dignity, self-esteem and improves the quality of life.

#### V. RECOMMENDATIONS

- ✓ Future cases of VVF should be prevented and controlled through a legislation preventing early of marriage.
- ✓ There is need for awareness creation and public enlightenment on the dangers of early marriage, child hawking, the importance of ante natal services, as well as, hospital delivery.
- ✓ Micro-Credit Scheme should be provided to empower the vulnerable women economically. They should also benefit from the conditional cash transfer policy of the Nigerian government. This will enable them have access to medical care and access hospital delivery.
- ✓ The government should discourage a total withdrawal of girl-child from school for the purpose of giving them out in marriage by their parents.

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