

RESEARCH COMMUNICATION

The Need to Incorporate Routine Cervical Cancer Counselling and Screening in the Management of HIV Positive Women in Nigeria

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Abstract

Objective: The study aimed to assess the awareness and utilization of the Pap smear among HIV positive women in Lagos, Nigeria. **Materials and methods:** A descriptive cross sectional survey of women attending the anti-retroviral clinic of the Lagos State University Teaching Hospital, Ikeja, Lagos State, Nigeria was carried out between 1st September and 30th November 2009 using a pre-tested questionnaire. Data were analysed using the Epi-info 3.5 statistical software of the Centre for Disease Control and Prevention, Atlanta USA. **Results:** None of the 300 respondents reported having received any form of counselling about cervical cancer and screening during the post HIV test counseling. Seventy six (25.3%) of them had heard of cervical cancer; Forty eight (16%) were aware of the Pap smear and only 15 (31.3%) of these (5% of the total number of respondents) have ever done the test before. The majority (69.7%) of those who had not been screened despite knowledge of the Pap smear, gave non- recommendation by their doctor as the main reason for not doing the test. **Conclusion:** Cervical cancer counseling and screening is not part of the routine management of HIV positive women in Lagos, Nigeria. There is need to address this deficiency with appropriate guidelines.

Keywords: HIV positive women - cervical cancer - Pap smear - routine counseling and screening - Nigeria

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Introduction

The burden of HIV in Nigeria is enormous with a seroprevalence rate of 4.4% according to the 2005 sentinel survey. It is estimated that Nigeria has 2.86 million HIV infected persons, the third highest in the world (NASCP, Federal Ministry of Health, Abuja, Nigeria 2007). On the other hand, cervical cancer is the commonest gynaecological cancer in Nigeria and a leading cause of cancer death in women (Thomas, 2000). In northern Nigeria, cervical cancer is the commonest cancer among females (Rafindadi et al., 1999), and is second to breast cancer in southern Nigeria (Thomas, 2000). It accounts for 12.7% of all cancers affecting women in south-western Nigeria (WHO 1986).

Women living with HIV infection have a higher risk of HPV infection, cervical dysplasia and cervical cancer than do HIV negative women (Hawes et al., 2003; Chirenje, 2005; Anorlu et al., 2007; Agaba et al., 2009). The evidence for this association led to the inclusion in the Centre for Disease Control (CDC) list of AIDS-defining illnesses in 1993 (CDC 1993), and the recommendation that HIV positive women received two pap smears at six months interval within the first year of HIV diagnosis followed by annual pap smear tests if these are negative compared with recommended screening every 2-3 years

for the general population (CDC, 1998). Preventive measures such as cervical screening programmes are therefore an integral part of a comprehensive management of HIV positive women.

Unlike other AIDS-defining cancers such as Kaposi sarcoma and Non-Hogkins lymphoma, the incidence of invasive cervical cancer did not decrease with the arrival of highly active anti-retroviral therapy (HAART) (Heard, 2009) and since women on HAART have an increased life expectancy, they may have a greater life time risk of developing cervical dysplasia and cervical cancer (Danso et al., 2006; Franceschi and Jaffe, 2007).

Most developed countries have established cervical cancer screening programmes even prior to the HIV/AIDS problem and have been able to prevent cervical cancer among women with HIV/AIDS to a large extent. In the United States, as much as 77% of women who receive treatment for HIV undergo annual pap smears and the vast majority of cases of cervical cancer among these women are therefore detected in the in situ stage (Oster et al., 2009). The situation in developing countries where 80% of cases of cervical cancer occur is different (Ansink, 2007). At any point, less than 5% of the general populations have undergone screening in the previous five years compared to 75% in the developed countries (Denny et al., 2006).

In Nigeria, cervical cancer is yet to be recognized as an

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important public health problem and there is no organized screening programme (Anorlu et al., 2007). Screening for pre-cancerous lesions is opportunistic and limited to a few urban and research centres (Anorlu et al., 2003). Consequently most women have not had a Papanicolaou smear (Pap smear) which remains the standard and available screening test for pre-invasive cervical lesions in the country. Considering these limitations with screening the general population, implementation of the CDC recommendation for cervical screening in HIV positive women in the country is bound to face numerous challenges.

The tendency today is to make the population more aware of disease preventive measures, and unless the reasons for non-participation in preventive health care and screening services are well understood, programmes will be misdirected and inappropriately designed. This study was conducted to assess the awareness and utilization of the Pap smear among HIV positive women attending anti-retroviral clinic in Lagos, Nigeria.

Materials and Methods

Design and setting

This study was a descriptive cross sectional survey, conducted at the anti-retroviral clinic of the Lagos State University Teaching Hospital (LASUTH) which is one of the two main referral hospitals in metropolitan Lagos. The anti-retroviral clinic takes place between 9:00 and 16:00 hours from Monday to Thursday every week. An average of 10 new and 50 old patients attend the clinic each day. Most of the patients return every month to see a doctor and to collect medications from the hospital. Formal approval for the study was obtained from the Research Ethics Committee of the Lagos State University Teaching Hospital. Participation of the patients was voluntary and only those who gave consent after the purpose of the study had been explained to them participated in the study.

Study population

The participants in this study were the new and old patients who attended the anti-retroviral clinic of LASUTH between 1st September 2009 and 30th November 2009.

Sample size determination

A study in Nigeria reported that 15% of women have heard of cervical cancer (Ajayi and Adewole 1998). We used this figure to calculate the sample size for this study using the formula $n = Z^2 p (1-p)/e^2$, to obtain a minimum sample size of 196 (Cohen 1988; Lameshaw et al. 1990). We projected a sample size of 300.

Data collection

The instrument for data collection was a pre-tested structured questionnaire. The purpose of the study was explained to the patients and consecutive consenting patients were interviewed by the authors until the desired sample size was reached. Confidentiality was maintained by not including their names and addresses so as to elicit the correct responses. The technique of face to face interview was used for data collection.

Table 1. Response to Pattern of Questions Related to Cervical Cancer and the Pap Smear Test

Question	Response	No. (%)
Have you heard of cervical cancer? (n=300)	Yes	76 (25.3)
	No	224 (74.7)
Is cervical cancer common In Nigeria? (n=76)	Yes	33 (43.4)
	No	8 (10.5)
	I don't know	35 (46.1)
Are you at risk of cervical cancer? (n=76)	Yes	24 (24.0)
	No	8 (10.5)
	I don't know	44 (57.9)
Have you heard of the Pap Smear test? (n=300)	Yes	48 (16.0)
	No	252 (84.0)
What was your source of information about the Pap smear test? (n=48)	Electronic media	10 (20.8)
	Friends/relatives	10 (20.8)
	Print media	6 (12.5)
	Seminars	6 (12.5)
	Religious groups	4 (8.3)
	School	4 (8.3)
	Medical personnel	8 (16.7)
Have you had a Pap smear Test done? (n=48)	Yes	15 (31.3)
	No	33 (68.7)
If you have had a Pap test, who asked you to? (n=15)	ARV Doctors	2 (13.3)
	Post natal Doctor	6 (40.0)
	Friends	2 (13.3)
	Personal initiative	5 (33.3)
	Could not afford it	3 (9.1)
If you have not done the Pap Smear test, despite being aware, what is(are) your reason(s)? (n=33)	Fear of the result	3 (9.1)
	Does not feel susceptible to cervical cancer	4 (12.1)
	No doctor request	23 (69.7)
	If available and accessible, would you be willing to have a Pap smear test done? (n=300)	Yes
	No	14 (4.7)

The questionnaire solicited for their socio-demographic characteristics, history of their HIV infection, anti-retroviral drug use, sexual activity, knowledge of cervical cancer and their knowledge and use of the Pap smear. All the questions were constructed in the same style and were either direct or open ended. After completing the interview, patients were educated about cervical cancer, risk factors and the Pap smear with the aid of a diagram of the female genital tract.

Data analysis

After data collection, the open ended questions were categorized and all the data obtained were entered into the computer and analysed using EPI-info 3.5 statistical software (2008 version) of the Centre for Disease Control and Prevention, Atlanta, U.S.A. and presented in descriptive and tabular forms as frequencies and percentages.

Results

The age of the respondents ranged from 17 to 60 years with a mean of 34.0 ± 7.61 years. The majority (54.3%) were married. One hundred and sixty six (55.3%) had secondary education, while only 13(4.3%) had no formal education. Most of these respondents were engaged in low class economic activity.

The mean number of years that the respondents had

been diagnosed with HIV infection was 2.13 ± 1.73 years and they had been attending the anti-retroviral clinic for a mean of 1.36 ± 1.0 years. One hundred and ninety three (64.3%) of the respondents were already on anti-retroviral drugs. Two hundred and six (68.7%) admitted to being sexually active and only 62 (30.1%) of these admitted to using condom regularly.

None of the respondents reported having received any form of counseling about cervical cancer and screening during their post HIV test counseling. The pattern of responses to core questions related to cervical cancer and Pap smear are summarized in Table 1.

Discussion

There is overwhelming evidence associating HIV infection in women with an increased risk of cervical dysplasia and cervical cancer and effective screening and treatment of pre-cancerous lesions are the key factors in preventing progression of cervical pre-cancerous lesions to invasive cancer in these women. In this era of highly active antiretroviral therapy with increased life expectancy for these women, the need to address the increased risk with appropriate guidelines becomes even more imperative in a developing country like Nigeria with a high prevalence of both HIV infection and cervical cancer.

It is of great concern that none of the participants in this study reported having received any form of counseling about cervical cancer and its screening during the post HIV test counseling. HIV counselors are strategically placed to educate these women about cervical cancer and its screening. However it is clear from this study that they are not informed about cervical cancer and opportunities to discuss screening are completely missed. It is therefore not surprising that only 25.3% of the respondents had ever heard of cervical cancer. This finding is similar to that reported from Enugu in eastern Nigeria which showed that only 30% of HIV positive women were aware of cervical cancer (Dim et al., 2009). Most of the women who had heard of cervical cancer were ignorant of their increased risk for the condition. Studies in the country have also demonstrated a lack of awareness about cervical cancer in the general population (Anorlu et al., 2000; Feyi-Waboso et al., 2005). Because of the poor level of awareness of cervical cancer, it is not surprising that only 16% of the respondents were aware of the available screening tool, the Pap smear. A study from urban South Africa however reported that 85% of HIV positive women were aware of the Pap smear (Wake et al., 2009).

This study revealed that only 15(31.3%) of the 48 respondents who were aware of the Pap smear (5.0% of the total number) have ever had the test done before. This also is not surprising as it is well established that only very few women in Nigeria have ever been screened for cervical cancer. None of the 500 women attending a maternal and child health clinic in a poor area of Lagos in 1999 had ever had a pap smear (Anorlu et al., 2000). Also, only 4.5% of women were reported to have had a pap smear from a recent survey in Enugu, south-eastern Nigeria (Nwankwo et al., 2011). The low level of awareness and poor knowledge of cervical cancer and the Pap smear coupled

with the unavailability and inaccessibility of cervical screening services may be largely responsible for this poor uptake of the Pap smear for cervical screening. Reports emanating from developed countries however show that majority of HIV positive women have undergone cervical screening. In a recent study, 59% of women attending an antiretroviral clinic in urban South Africa have had the Pap smear (Wake et al., 2009). Also in the USA, most women who receive treatment for HIV undergo annual Pap smears (Oster et al., 2009).

It is worthy of note that only 12.5% of the Pap smears were recommended by doctors in the antiretroviral clinic. This is perhaps a reflection of the poor practice of cervical cancer screening among Nigerian doctors in general. Only 5% of 504 general practitioners in Lagos in 2004 screened their patients for cervical cancer (Anorlu et al., 2007), and only 34.9% of specialist gynaecologists on whom the greater burden of treating cervical cancer lie routinely recommend Pap smear screening for their patients (Onah et al., 2001). It is therefore not surprising that the main reason given for not having had a Pap smear done by those who were aware of it was because their doctors have not recommended the test. A recent survey of 166 female health professionals in Nigeria showed that the main reason why most of them have never had a Pap smear was due to lack of physician referral (Olaniyan et al., 2000), thereby corroborating the finding in this study.

It is however encouraging that most of the women expressed willingness to have a Pap smear test after a comprehensive explanation of what it is and how it is carried out. This suggests that appropriate counseling and education programmes about cervical cancer and screening may improve participation rates.

In conclusion, cervical cancer counseling and screening is not part of the routine management of HIV positive women in Lagos, Nigeria and the situation is unlikely to be different in other parts of the country. Consequently the use of the Pap smear by HIV positive women is low. With HIV infected women living longer as a result of highly active anti-retroviral therapy, there is a clear need to address this deficiency with appropriate management guidelines. There is need to incorporate routine cervical cancer counseling and screening in the management of HIV positive women.

References

- Agaba PA, Thacher TD, Ekwempu CC, et al (2009). Cervical dysplasia in Nigerian women infected with HIV. *Int J Gynaecol Obstet*, **107**, 99-102.
- Ajayi I, Adewole IF (1998). Knowledge and attitude of general outpatient attendants in Nigeria to cervical cancer. *Central African J Med*, **44**, 41-3.
- Anorlu RI, Banjo AAF, Odoemelum C, et al (2000). Cervical cancer and cervical cancer screening: Level of awareness in women attending a primary healthcare facility in Lagos, Nigeria. *Niger Postgrad Med J*, **7**, 25-8.
- Anorlu RI, Abdul-Kareem FB, Abudu OO, et al (2003). Cervical cytology in an urban population in Lagos, Nigeria. *J Obstet Gynaecol*, **23**, 285-8.
- Anorlu RI, Igwillo CI, Akanmu AS, et al (2007). Prevalence of abnormal cervical smears among patients with HIV in Lagos,

KA Rabiou et al

- Nigeria. *West Afr J Med*, **26**, 143-4.
- Anorlu RI, Ola ER, Abudu OO (2007). Low cost methods of secondary prevention of cervical cancer in developing countries. *Niger Postgrad Med J*, **14**, 242-6.
- Anorlu RI, Rabiou KA, Abudu OO, et al (2007). Cervical cancer screening among general practitioners in Lagos, Nigeria. *J Obstet Gynaecol*, **27**, 181-4.
- Ansink AC (2007). Cervical cancer in developing countries: How can we reduce the Burden? Awareness raising, screening, treatment and palliation. *Trop Doct*, **37**, 67-70.
- Centres for Disease Control and Prevention (1993). 1993 revised classification system for HIV infection and expanded surveillance and case definition for AIDs among Adolescents and adults. *JAMA*, **269**, 729-30.
- Centres for Disease Control and Prevention (1998). 1998 guidelines for treatment of Sexually transmitted diseases. *MMWR Recomm Rep*, **49**, 1-111.
- Chirenje ZM (2005). HIV and cancer of the cervix. *Best Pract Res Clin Obstet Gynaecol*, **19**, 267-76.
- Cohen J (1988). Statistical power analysis for behavioural sciences. 2nd ed, Hillsdale, NJ: Lawrence Erlbaum Associates.
- Danso D, Lyons F, Bradbeer C (2006). Cervical screening and management of cervical Intraepithelial neoplasia in HIV positive women. *Int J STD AIDS*, **17**, 579-84.
- Denny L, Quinn M, Sankaranarayanan R (2006). Screening for cervical cancer in developing countries. *Vaccine*, **24**, 71-7.
- Dim CC, Dim NR, Ezegwui HU, et al (2009). An unmet cancer screening needs of HIV-positive women in southeastern Nigeria. *Medscape J Med*, **11**, 19.
- Feyi-Waboso PA, Kamanu C, Aluka C (2005). Awareness and risk factors for cervical Cancer among women in Aba , south-eastern Nigeria. *Trop J Obstet Gynaecol*, **22**, 25-6.
- Franceschi S, Jaffe H (2007). Cervical cancer screening of women living with HIV infection: a must in the era of antiretroviral therapy. *Clin Infect Dis*, **45**, 510-3.
- Hawes SE, Critchlow CW, Faye-Niang MA, et al (2003). Increased risk of high-grade Cervical squamous intraepithelial lesions and invasive cervical cancer among African Women with human immunodeficiency virus Type 1 and 2 infections. *J Infect Dis*, **188**, 555-63.
- Heard I (2009). Prevention of cervical cancer in women with HIV. *Curr Opin HIV AIDS*, **4**, 68-73.
- Lemeshow S, Hosmer DW, Klar J, et al (1990). Adequacy of sample size in health Studies. Chichester: John Wiley.
- National AIDS/STD Control Programme (NASCP), Federal Ministry of Health Abuja.
- Nigeria (2007). National Guideline for HIV and AIDS Treatment in Adolescents and Adults.
- Nwankwo KC, Aniebue UU, Aguwa EN, et al (2011). Knowledge, attitudes and practice of cervical cancer screening among urban and rural Nigerian women: a call for education and mass screening. *Eur J Cancer Care (Engl)*, **20**, 362-7.
- Olaniyan OB, Agboghroma OC, Ladipo OC (2000). Knowledge and practice of cervical screening among female health workers in government hospitals in Abuja Metropolis, Nigeria. *Trop J Obstet Gynaecol*, **17**, 18-20.
- Onah HE, Ezugwu FO, Eze JN (2001). Cervical cancer screening: A survey of current practice among practice amongst Nigerian gynaecologists. *Trop J Obstet Gynaecol*, **18**, 78-81.
- Oster AM, Sullivan PS, Blair JM (2009). Prevalence of cervical screening of HIV-infected women in the United States. *J Acquir Immune Defic Syndrome*, **51**, 430-6.
- Rafindadi AH, Ifenne DI, Shittu SO (1999). A study of some aetiological factors of 41 cases of cancer of the cervix uteri in Zaria. *Nig Qt J Hosp Med*, **9**, 607-18.
- Thomas JO (2000). Cancer registration and diagnosis in Ibadan. *Arch Ibadan Medicine*, **1**, 5-6.
- Wake RM, Rebe K, Burch VC (2009). Patient perception of cervical cancer screening among women living with human immune-deficiency virus attending an antiretroviral clinic in urban South Africa. *J Obstet Gynaecol*, **29**, 44-8.
- World Health Organization (1986). Control of Cancer of the cervix uteri. *Bull World Health Organ*, **64**, 607-18.