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A Retrospective Analysis of Cervical Cytology Report of Women Screened by a Non-governmental Organization in Rivers State, Nigeria.

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ABSTRACT

Introduction: Cervical cancer is a preventable genital tract malignancy, with majority of the patients presenting in the advanced stages in the developing countries of the world due to poor screening. However in the developed countries of the world through organized screening modalities of cervical cancer over 80% of mortalities are prevented annually. Cervical cancer is the fourth most common cancer among women world -wide, but in developing countries like Nigeria, it is second only to breast cancer. There were estimated 570,000 new cases and 311,000 deaths from cervical cancer in 2018.
Aim/Objective: 1. To determine the secondary prevention of cervical cancer and timely treatment of precancerous lesions. **2.** To highlight the poor up take of these screening methods in new and middle income countries (LMICS), especially Nigeria.
Method: This was a retrospective study conducted over eleven year period by a nongovernmental organization during a medical outreach. Enlightenment campaign on cervical cancer was carried out involving two hundred after which consent given by them for cytology screening using the Pap smear described by Dr. George Papanicolaou. The information was analyzed by simple statistical method.
Results: Two hundred women were analyzed. Their ages were between 25 and 73 years (majority, over 90% were of the reproductive ages 40 to 49 years). One hundred and sixty (80%) of the subjects had never heard of cervical cancer; 196 (98%) were undergoing Pap smear screening for the first time. One hundred and ninety (85%) were negative for precancerous lesions, 10 (5%) of the women had precancerous lesions, 8(4%) had Low Grade Squamous Intra-epithelial Lesion (LGSIL), 1(0.5%) had High Grade Squamous Intra-epithelial Lesions and 1 (0.5%) had Atypical Squamous Cells of Undetermined Significance (ASCUS).
Conclusion: The study revealed that the awareness of cervical cancer was poor represented by 80% of the respondents. In addition, the study showed that majority of the respondents were undergoing cervical cancer screening for the first time, represented by 95% of the respondents. There is need for awareness and enlightenment for cervical cancer prevention by Government and Nongovernmental organizations to the general public to prevent mortalities from the disease burden

INTRODUCTION:

Cervical cancer is a preventable genital tract malignancy, with majority of the patients presenting in the advanced stages in the developing countries of the world due to poor screening.[1-4] However in the developed countries of the world through organized screening modalities of cervical cancer over 80% of mortalities are prevented annually.[2-4] Cervical cancer is the fourth most common cancer among women worldwide, but in developing countries like Nigeria, it is second only to breast cancer.[2-5] There are estimated 570,000 new cases and 311,000 deaths in 2018.[.2-6]

Approximately 85 to 90% of cervical cancer new cases and deaths occur in low and middle income countries (LMIC) [3]; whereas, in the high-income countries, cervical cancer has relatively declined steadily and significantly for several decades. [3,4] This is largely attributable to organized cytology based cervical cancer screening initiatives and effective cancer treatment services. In many LMICs, including Nigeria, cervical cancer screening services are either opportunistic, sporadic, or nonexistent with inadequate treatment services.[5,6] As a result, most women living in LMICs present with advanced-stage invasive cervical cancer, resulting in high morbidity and mortality.[7]

Prophylactic use of human papilloma virus (HPV) vaccine as primary prevention strategy is also employed in reducing the burden of cervical cancer. Over 90% of cervical cancer is attributable to several oncogenic HPV serotypes. Broad-spectrum vaccines such as Gardasil which is quadrivalent against the virus can potentially prevent cervical cancer by about 84 to 90 percent.[8,9]

In most LMICs, HPV vaccine is still inaccessible, and vaccination coverage is less than 3% compared to over 63% in high income regions.[8,9,10] In addition, the only available HPV vaccine in some countries including Nigeria is bivalent and provides only partial protection. As a result, even immunized women still have to undergo screening.[11,12]

Secondary prevention strategy consequently remains the key to reducing the cervical cancer burden in LMICs.[13]

Across Nigeria, there were 14,943 new cases and 10,403 deaths in 2018. [13,14] The high disease incidence and mortality rates are largely due to nonexistence of organized cervical cancer screening and scarce treatment services.[15] Other contributory factors, however, include: advanced disease presentation, insufficient awareness and knowledge, literacy, poverty, and socio-cultural factors. [7,16]

AIM/OBJECTIVE:

The primary objective of secondary prevention of cervical cancer is the accurate detection and timely treatment of precancerous lesions. Cytology (Pap), visual inspection with acetic acid/ (VIA/VILLI) and HPV-DNA testing are three screening strategies for cervical cancer.

The aim of this analysis is to highlight the poor uptake/acceptability of these screening methods in LMICs, especially Nigeria.

The objective of the program is to create awareness about cervical cancer risk reduction strategies in addition to promoting a positive attitude towards screening.

METHOD:

This study is a retrospective analysis of the cervical cytology (Pap Test) reports of 200 women screened over a period of 11 years (2007-2018). The Community Cervical Cancer Awareness and Early Detection Programme carried out by Preventive Health Care Initiative, a nongovernmental organization in Rivers-state, Nigeria. We looked at Bio-data, including the cytology reports, of all the women screened for cervical cancer over the period under review. The method of screening was as described by Dr. George Papanicolaou.[17,18] The report was based on the Bethesda system for reporting cervical cytology. Each of the women screened was appropriately followed up based on their cytology report and recommendation of SOGON Nigeria guideline. The information was analyzed by simple statistical method.

EXCLUSION CRITERIA

Women who were menstruating or pregnant were excluded from this screening.

RESULTS:

TABLE: PAP SMEAR TEST RESULT (CYTOLOGY)

Total Number of Women Screened	200
Negative for Precancerous Lesions	190 (95 percent)
Positive for Precancerous Lesions	10 (5 percent) HSIL – 1 LSIL – 8 ASCUS – 1
Inflammatory Smears	7

200 women aged between 25 and 73 were screened. Majority fell within the reproductive age group (40 to 49 years). Prior to the program, about 80% of the participants have never heard of cervical cancer. 98 percent were screened for the first time. The cytology reports indicated that 190 (95%) were negative for precancerous lesions. Ten (5%) of the women, however, had precancerous lesions which included: Low Grade Squamous Intra-epithelial Lesion (LSIL),8 (4%), High Grade Squamous Intra-epithelial Lesion (HSIL) 1 (0.5%), and Atypical Squamous Cells of Undetermined Significance (ASCUS) 1 (0.5%). No case of invasive cervical cancer was found. Other conditions found include: seven inflammatory smears, with two suggestive of candidiasis and one atrophic smear.

DISCUSSION:

The study revealed that the awareness of cervical cancer was 80% of the respondents. Although this was above average but not good enough when compared to some other cities in Nigeria. The cervical cancer awareness was higher than 80% in Lagos as shown in the table in this study. [2-5] However, in some rural areas in Nigeria, the awareness of cervical cancer was lower than 80% as seen from this study.[4-6]
Infection with high-risk HPV e.g. serotype 16 or 18 may cause persistent disease, precancerous changes such as mild dysplasia (low-grade lesions), or moderate to severe dysplasia (high grade lesions). The high-grade SIL, nevertheless, has a greater potential to progress to cancer than the

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low-grade SIL. Studies indicate that if left untreated, about 20% of HSIL will progress to invasive cervical cancer.[2-8] However, for LSIL approximately 57 percent will regress spontaneously, while 32 percent will have persistent infection, and 16% may progress to HSIL.[4-9]
Persistent HPV infection takes a latent period of about 10 to 20 years to progress to invasive cervical cancer.[10-14,16-18] This allows for the secondary prevention through screening of asymptomatic women for precancerous lesions.[20] Early detection and prompt treatment of identified cases prevents progression.[1,16-18]

CONCLUSION:

Cervical cancer are preventable genital tract malignancies, but remains a serious threat to the health of women globally. Cervical cancer screening coverage is dismal in our environment even though an organized screening program can effectively reduce the cervical cancer incidence and mortality. The current national cervical cancer screening is essentially opportunistic and sporadic. Significant impact in the secondary prevention of cervical cancer is achieved only by increasing screening coverage. Majority of the women diagnosed with invasive cancer in our environment never had the opportunity to be screened. The functional nationwide cervical cancer screening program is critical for effective decline in incidence of morbidity and mortality of cervical cancer.

Other important factors in ensuring an effective screening program include community education with emphasis on the benefits of screening. Our experience with the cervical cancer awareness and early detection program demonstrated the ability of an educational intervention to reduce barriers and elicit positive cervical cancer screening behavior. The health talks about cervical cancer risk factors, symptoms, and screening procedure, often motivated the women to consent to screening. We were however limited by the high cost of cytology-based tests. Alternating less-expensive screening methods such as Visual Inspection with Acetic acid (VIA) or Visual Inspection with Lugol's Iodine (VILI) as recommended for low and middle income countries.

RECOMMENDATIONS:

There is need for awareness and enlightenment for cervical cancer prevention by Government and Nongovernmental organizations to the general public to prevent mortalities from the disease burden.

REFERENCES:

1. Okeke TC, Onuh N, Ikeako LC, Ezenyeaku CCT. The Frequency and Pattern of Female Genital Malignancies at The University of Nigeria Teaching Hospital, Enugu, Nigeria. Ann Med Health Sci. Res 2013; 3: 343-8.
2. Seleye-Fubara O, Uzoigwe SA. Pattern of primary female genital cancer in Port Harcourt, Nigeria. A 12-year review. Sahel Med J 2003; 6: 34-9.
3. Anorlu RI. Cervical cancer: The sub-saharan African perspective. Reproductive Health Matters 2008; 16:41-9.
4. Siegel RL, Miller KD, Jemal A. Cancer J Clin 2020; 70: 7-30.
5. Daniel CN, Emmanuel IN, Arede L, Magaj A. Screening for cervical cancer experience from a university hospital in north western Nigeria (2007-2009). Journal of Basic and Clinical Reproductive Sciences 2013; 2(1): 18.
6. Tesfaye ZT, Bhagawathula A, Gabreyohurines EA. Knowledge and Awareness of Cervical Cancer and Human Papillomavirus among female students in Ethiopia University: A cross-sectional study. International Journal of Preventable Medicine 2019; 10(1): 198.
7. Udofia E, Awaoro CD, Ekanem U. Awareness, use and main source of information on preventive health examinations: a survey of childbearing women in

Uyo, Nigeria. African Journal of Reproductive Health 2012; 16(4): 149-61.
8. Ofuebe J, Omaka LN, Asogwa BO, Agu MA. Knowledge and use of cervical cancer screening for cancer prevention by Reproductive age women. Global Journal of health sciences 2019; 11(7); 47-52.
9. Islami F, Fedena SA, Jemal A. Trends in cervical cancer incidence rates by age, race/ethnicity histological subtype and stage at diagnosis in the United States. Prev Med 2019; 123: 310-323.
10. Toye et al. Knowledge, perception and practice of cervical cancer prevention among female public secondary school teachers in Mushin local government area of Lagos state, Nigeria. Pan African Medical Journal 2017; 28: 221.
11. Ahmed SA, Sabitu K, Idris SH, Ahmed R. Knowledge, attitude and practice of cervical cancer screening among market women in Zaria, Nigeria. Nigeria Med J 2013; 54: 316-9.
12. Okunowo AA, Smith-Okonu ST. Cervical cancer screening among urban women in Lagos, Nigeria: Focus on barriers and motivations for screening. Niger J Gen Pract 2020; 18(1): 10-16.
13. Nwankwo KC, Aniebue U, Aguwa EN, Anarado AN, Aguruwan E. 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 2011; 20(3): 362-367.
14. Qiao YL, Sellors JW, Eder PS, Bao YP, Lim JM, Zhao TH et al. A new HPV-DNA test for cervical cancer screening in developing regions: a cross-sectional study of clinical accuracy in rural China. Lancet Oncol. 2008: 9(10): 929-936.
15. Brown DR, Wilson RM, Boothe MA, Harris CE. Cervical cancer screening among ethnically diverse black women knowledge, attitudes, beliefs and practices. J Nat Med Assoc 2011; 103(8): 718-728.
16. Kiristic A, Lang K, Baili P, Antila A, Veems P. Women's knowledge about cervical cancer risk factors, screening programme in Estonia. BMC Women's Health 2011; 11:43.
17. Thomas J, Ojemakinde O, Izebraye I. Current concepts in cervical carcinogenesis and new prospective in prevention. Arch Ibadan Med. 2002; 3(1): 56-9.
18. Ferlay J, Shin HR, Bray F, Forman D, Matthas C, Parker DM. Estimates of worldwide burden of cancer in 2008. GLOBACAN Int J Cancer 2010;127(12): 2893-917.
19. Munoz N, Bosch FX, de Sanjose S, Herero R, Castellsague X, Shah VK et al. Epidemiologic classification of human papillomavirus types associated with cervical cancer. N Eng J Med 2008; 348(6): 518-27.
20. Gichangi P, Estambale B, Bwayo J, Rogo K, Ojwang S, Opiyo A et al. Knowedge and practices about cervical cancer and Pap smear testing among patients at Kenyetta National Hospital, Nairobi, Kenya. Int J Gynecol Cancer 2003; 13(6): 827-833.

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