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A Cytological Study Of Cervical Lesions At Warri Central Hospital In Delta State, Nigeria.

*Anibor Ese, **Mabiaku Tagbire, *Soeze Mary, *Keneboh Goodness Nmesomma

*Department of Human Anatomy and Cell Biology, Delta State University, Abraka, Delta State, Nigeria.
**Department of Medicine, Delta State University, Abraka, Delta State.

Corresponding author:
Dr. Ese Anibor.

Department of Human Anatomy and Cell Biology
Faculty of Basic Medical Sciences, Delta State University, Abraka, Nigeria
Phone: +2348180404966 and +2348131617679
Email: eseovo2000@yahoo.com

ABSTRACT

Introduction: Cervical examination is a benchmark for the discovery of the cause of cervical abnormalities and the study of cervical diseases. This study is aimed at examining the various cervical lesions identified by the cytological examination of cervical tissue at the Central Hospital in Warri, Delta State.

Materials and Methods: In Pathology Department at Warri Central Hospital, eighty-one cases were evaluated by the cervical (pap) smear test with cytology. The age range for the female patients is between 18 and 71 years.

Results: The majority of the patients (21%) in the study population were between 36 and 41 years of age, 18.5% were between 42 and 47 years, and 11.1% were between 54 and 59 years. Patients in the 18-23 year age group were the least represented (2.1%). Squamous cell carcinoma (SCC) 23(28.4%) and cervicitis 22 (27.2%) were the leading cervical pathologies diagnosed. There was no significant relationship between age and cervical lesions diagnosed (p=0.492).

Conclusions: Cervical lesions showed higher occurrence rates of SCC as the widespread pathology in patients aged 36 to 41 years as well as those aged 66 to 71 years.

Key Words: *Cytological, Cervical, Leisons, Central, Hospital, Warri*

INTRODUCTION

The cervix is a component of the female genitalia, approximately 23 centimeters (0.81.2 in) long.[1] The lower narrow part of the uterus is continuous above, with the wider upper part-or body-of the uterus. The lower end of the cervix bulges through the anterior wall of the vagina, termed the vaginal portion of the cervix and the portion above is the supravaginal section of the cervix. [2] The canalis cervicis uteri has a mucosa called the endocervix and that of the ectocervix is called the exocervix.

Screening programs have reduced the occurrence and mortality of cervical cancer in many developed countries.[3] It is the second most frequent cancer amid women in the world and ranks as the first most common cancer among women in India and other developing countries.[4] Disease and health are accurately reflected in both tissue and cell patterns that can be studied in histopathology and cytopathology. Clinical cytopathology involves the detection and diagnosis of diseases at various stages.[5] Cytohistology is relevant in detecting or diagnosing cervical lesions at an early onset.[6]

This study is therefore intended to explore the various cervical lesions identified by the cytological analysis of cervical tissues at the Central Hospital in Warri, Delta State. The outcome of this inquiry is imperative to Obstetricians, Gynecologists as well as Oncologists.

MATERIALS AND METHODS

Permission was sought from the Research and Ethics Committee of the Department of Anatomy, Delta State University, prior to the commencement of this research and also from the Ethical Committee of Warri Central Hospital, Delta State. Eighty-one patients in 18 to 71 years bracket were involved and scrutiny of two years retrospective data of 81 patients registered for the cervical smear test in the Pathology Department at Warri Central Hospital was done. Data were collected from records and statistics at the Central Hospital in Warri, Delta State. Details of the age, ethnicity and cytologic diagnosis of each case were recorded on the data sheet. Data collection was carried out between October and December 2019. The data obtained was entered in version 23 of the Statistical Package for the Social Sciences. Chi-square was used to evaluate the association between age and diagnosis. P-values of less than 0.05 were considered statistically significant.

RESULTS

Table 1: Age percentage distribution of females with the cervical lesions diagnosed.

Age (years)	Frequency (%)
18-23	1(1.2%)
24-29	5(6.2%)
30-35	9(11.1%)
36-41	17(21%)
42-47	15(18.5%)
48-53	9(11.1%)
54-59	9(11.1%)
60-65	9(11.1%)
66-71	7(8.6%)
Total	**81(100%)**

Table 1 shows that the mainstream of cases {17 (21%)} in the study population were in the 36-41 age group.

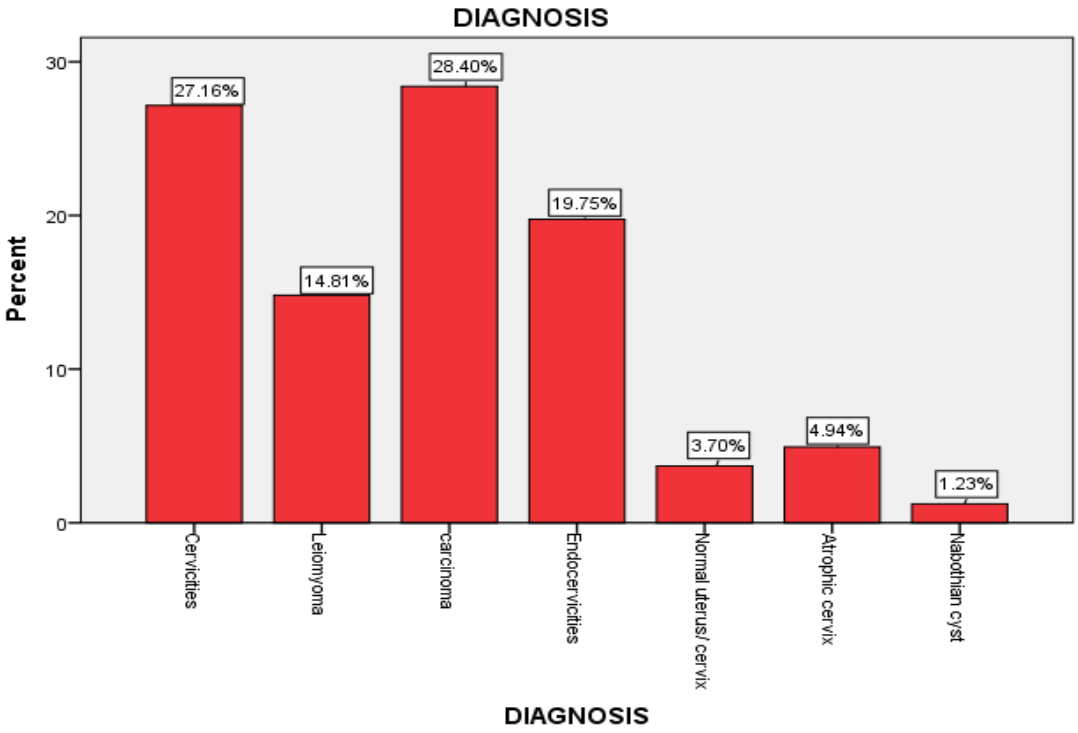

Figure 1: **Showing percentage distribution of cervical lesions among the subjects**

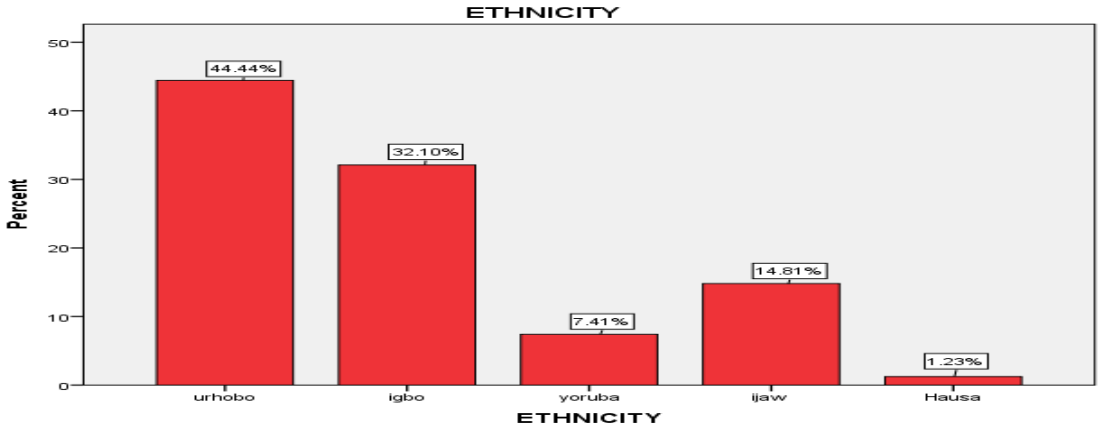

Figure 2: Showing the ethnicity of the subjects

Among the entire ethnic groups, Urhobo (44.4%) was most represented.

Table 2: The association between Age and Diagnosis

Age	Cervicitis	Leiomyoma	Carcinoma	Endocervicitis	Normal	Atrophic	Cyst	Total
18-23	-	-	1(1.2%)	-	-	-	-	1(1.2%)
24-29	2(2.5%)	1(1.2%)	-	1(1.2%)	1(1.2%)	-	-	5(6.2%)
30-35	1(1.2%)	2(2.5%)	2(2.5%)	2(2.5%)	1(1.2%)	1(1.2%)		9(11.1%)
36-41	4(4.9%)	2(2.5%)	6(7.4%)	4(5%)	-	1(1.2%)	-	17(21%)
42-47	5(6.2%)	1(1.2%)	5(6.2%)	3(3.7%)	-	1(1.2%)	-	15(18.5)
48-53	3(3.7%)	2(2.5%)	1(1.2%)	2(2.5%)	-	1(1.2%)	-	9(11.1%)
54-59	4(4.9%)	2(2.5%)	1(1.2%)	2(2.5%)	-	1(1.2%)	-	9(11.1%)
60-65	3(3.7%)	2(2.5%)	2(2.5%)	2(2.5%)	-	-	-	9(11.1%)
66-71	-	-	6(7.4%)	-	-	-	1(1.2%)	7(8.6%)
Total	22(27.2%)	12(14.8%)	23(28.4%)	16(19.8%)	3(3.7%)	4(4.9%)	1(1.2%)	7(8.6%)

In table 2, the age group 36-41years was mostly affected; had squamous cell carcinoma, 6(7.4%) and endocervicities, 4(5%) as the leading cervical pathologies diagnosed.

Table 3: Association of age and ethnicity with diagnosis

Pairs	Number	Chi square ($x^{2)}$)	*p*-value
Age and Diagnosis	81	47	.492
Diagnosis and Ethnicity	81	15	.890

The association between age and the cervical lesions diagnosed wasn't remarkable (p=.492). There was also no significant association between ethnicity and the cervical lesions diagnosed (p>.05).

DISCUSSION

Results show that cervicitis, an inflammatory disease involving acute cervicitis and chronic non-specific cervicitis, accounted for 27.2% of all cervical lesions in this study. Cervicitis was most common in the age group 42-47 years with a frequentness of 5 (6.2%). Most cases of cervicitis are often due to non-specific causes or infectious agents. [7] Srikanth et al., in a study on histopathological variants in cervical lesions, to know the age incidence and early detection of cervical cancer found chronic cervicitis to be the most common non-neoplastic lesion and large cell non-keratinizing squamous cell carcinoma to be the mainstream of malignant lesions. [8] A study by Avani reported an age range of 20–80 years with chronic non-specific cervicitis with frequentness of 70 (35%).[9] This study also showed a drop in the diagnosis of cervical disorders with advanced age of patients, which wasn't considerable (P=.492).

Squamous cell carcinoma (SCC) accounted for 28.4% of the lesions and was also the most common diagnosis, with age groups 36-41 years and 66-71 years having the same proportion of 6 (7.4%). Several Nigerian studies have shown SCC prevalence between 88.0% and 93.9% among malignant tumors.[7] This high rate of SCC in Nigeria could reflect low Pap uptake and other screening measures such as acetic acid visual inspection (VIA) capable of identifying dysplastic conditions prior to malignancy transformation. Cervical SCC reduced drastically in many developed countries as a result of organized Pap and HPV vaccination tests for cervical screening.

Francis *et al* [10]. found the age range for cervical cancer as 19–87 years with a mean age of 49 years (SD ± 13.0) and a peak occurrence in the 5th decade. Avani [9] reported an age range of 20–80 years with peak age at 5th and 7th decade and average age of 49.2 years. However, our analysis divulged a reasonably equal distribution of SCC in the 4^{th}, 5^{th} and 7^{th} decades, which is very much related to the observations of Francis [10] and Avani et al [9]. Different researchers noted that SCC has high frequency rates of 95%, 93%, 92%, 85.7% .[11, 12,13] Studies conducted by others recorded higher predisposition to cervical lesions among those close to 50 years than other age groups. [14,15 16]

The appraisal above divulged notable disparity in the happening of cervical disorders in diverse parts of the globe. Ethnic and ecological differences are probable reasons for the variations in the occurrences of cervical lesions in the studies discussed above.

CONCLUSION

Cervical lesions showed higher occurrence rates of SCC as the widespread pathology in patients aged 36 to 41 years as well as those aged 66 to 71 years.

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