

Ultrasonographic Study of Gynaecological Disorder at Central Hospital Warri, Delta State, Nigeria

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ABSTRACT

Objective: Gynaecological disease and its complications has been observed to increase female morbidity and mortality. The objective of this study was to evaluate the distribution and age variations of gynaecological disorders seen at Central Hospital, Warri, Delta State Nigeria.

Methods: The purposive sampling and retrospective study design was employed. A total of 363 female patients' records were obtained from the Ultrasound unit of the Radiology Department of Central Hospital, Warri, Delta State, Nigeria. Ethical Consent was issued by the Research and Ethics Committee of Human Anatomy and Cell Biology, Delta State University, Abraka. Data were analysed and presented in a tabular form.

Results: The most predominant age group affected with gynaecological disorders and the least were those of ages 21-30 and 71-80 years with frequencies of 118(32.5%), and 1(0.3%) respectively. Findings from this study also depicted pelvic inflammatory disease (166, 43.0%) as the most predominant diagnosis, followed by Endometriosis (69, 17.9%). Significant association ($p < 0.05$) between age groups and gynaecological diagnosis was observed.

Conclusion: The study reveals that pelvic inflammatory disorder is the most predominant gynaecological disorder and that age has a significant association with gynaecological abnormality/diseases.

Keywords: Gynaecological, Disorders, Warri, Delta, State, Nigeria

INTRODUCTION

Gynaecological conditions have been observed to be important public health problems globally (Emembolu & Ekwempu, 1998; Ibrahim & Ijaiya, 2013; Agboeze et al., 2015). Among the various causes of cancer related deaths and morbidities worldwide, gynaecological disorder is an example with a regional variation in its distribution (Kasule, 1989; Mohyuddin et al., 2012; Ibrahim & Ijaiya, 2013). Research has revealed distribution of gynaecological disorders in regions such as Sub-Saharan Africa ranging from 31.6 to 35.0% and in regions like North America varying from 12.7 to 13.4% (Babarinsa et al., 1998; Mohyuddin et al., 2012). In an estimation of female cancer cases, a

quarter of these cases with the exception of skin cancer are gynaecological disorders (Iyoke & Ugwu, 2013).

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Studies over the years have reported that pelvic inflammatory disease is a commonly experienced gynaecological condition. According to Agboeze et al., it is regarded as an infection of the upper reproductive tract of the female which includes the uterus, fallopian tubes, ovaries as well as the inner structure of the pelvis. Neisseria gonorrhoeae and

Chlamydia trachomatis are responsible for 75 - 90% of all known cases of pelvic inflammation (Agboeze et al., 2015). The symptoms of pelvic inflammatory disease range from fever, cervical motion tenderness, lower abdominal pain, new or different vaginal discharge, painful intercourse, uterine tenderness, adnexal tenderness to irregular menstruation (Brunham, 2015).

As stated by Qublan & Abdel-hadi, ovarian cyst is also an example of gynaecological disorders which described as a fluid-filled sac like structure in the ovary which occasionally results in bloating, back and abdominal pain (Qublan & Abdel-hadi, 2000). Studies have depicted that ovarian cyst cases are related to either follicular cysts or corpus luteum cysts. Others include dermoid cysts, cystadenomas and cysts due to endometriosis (Levine, et al., 2010). Eight percent (8%) of ovarian cyst are present before menopause while approximately 16% occur after menopause, a number of females of reproductive age have been observed to develop small cysts monthly (Abduljabbar et al., 2015).

The aim of this study was to evaluate the distribution and age variations of gynaecological disorders seen at Central Hospital, Warri, Delta State in Nigeria. Outcomes of this study would be of interest to, Gynaecologists, Oncologists, Family Medicine Physicians in their management of females with gynaecological lesions; and also, the policy makers who are involved in taking decisions that affect female health.

MATERIALS AND METHODS

In this descriptive cross-sectional study, the data of 363 female patients who were diagnosed with different gynaecological abnormalities seen at the Central hospital Warri, Delta State within the period of 2019 to 2020 were retrieved and

retrospectively reviewed. Purposive sampling technique was employed to obtain the data from the Records department and the ultrasound unit of the Radiology department of the hospital. Ethical consent for the study was obtained from the Research and Ethics Committee of Human Anatomy and Cell Biology, Delta State University, Abraka.

Data collated were analyzed and results were displayed in tables and chi-square test was used as an inferential statistical tool. Significance was acceptable at a probability level less than 0.05.

RESULTS

Table 1 showed majority of the patients were aged 21-30years (118, 32.5%) which was followed by patients who were 31-40 years of age (92, 25.3%). Patients who were aged 41-50years were third in the rank of age distribution with a frequency of 67 (18.5%), with the least frequency in the distribution associated with patients within the age group 71-80years.

Table 2 depicts the distribution of gynaecological disorders observed in the patients with Pelvic Inflammatory disorder was the most common with a frequency of 166 (43.0%), followed by endometriosis with a frequency of 69 (17.9%) and Multiple Uterine Fibroid/myoma 59 (16.0%). The following were the least observed diagnoses; cervical myoma, cervical prolapse, ovarian cyst, dilated endometrial cavity, endometrial hyperplasia, incomplete septic abscess, and uterine prolapse.

Table 3 shows the test of association between age and various gynaecological disorders. The test revealed that a significant association ($p < 0.05$) between age and gynaecological disorder observed in the study population

Table 1: Age Distribution of Patients in the studied population

Age group (years)	n (%)
11-20	53(14.6)
21-30	118(32.5)
31-40	92(25.3)
41-50	67(18.5)
51-60	16(4.4)
61-70	5(1.4)
71-80	1(0.3)
Total	363 (100.0)

DISCUSSION

Globally, gynaecological disorders have been regarded as an important public health problem being a leading cause of morbidity and cancer-related deaths worldwide, with distribution and frequency variation from one region to the other

(Iyoke & Ugwu, 2013). Its proportion based on origin range from as high as 31.6% to 35.0% in sub-Saharan Africa and as low as 12.7% to 13.4% in North America with developed nations having lower incidence than developing nations due to health seeking behavior and organized

screenings methods (Babarinsa et al., 1998; Mohyuddin et al., 2012; Iyoke & Ugwu, 2013). Extrapolations from this study are in agreement with studies carried out which reported that most gynaecological diseases and complication were predominant in females aged 20-30 years with a frequency of 45.1% (Ibrahim & Ijaiya, 2013). Similarity was also observed in a study conducted by Mohyuddin et al., 2012 which depicted that the lower the age the lower the

prevalence of gynaecological diseases and complication with lower incidence in females ages of 60 years and above in Pakistan (Mohyuddin et al., 2012). Kasule, 1989 reported the age group 30-41 years as the most predominant age group predisposed to gynaecological diseases and complications and thus was in disagreement with the findings of this study (Kasule, 1989).

Table 2: Distribution of Gynaecological Disorders among Patients in the studied population

Diagnosis	Frequency (%)
Cystitis	3 (0.8)
Cervical Prolapse	1 (0.3)
Ovarian Cyst	21 (6.0)
Dilated Endometrial Cavity	1 (0.3)
Endometrial Hyperplasia	1 (0.3)
Endometriosis	69 (17.9)
Haematometria	2 (0.5)
Incomplete Septic Abscess	1 (0.3)
Intramural Uterine Fibroid/myoma	3 (0.8)
Multiple Uterine Fibroid/myoma	59 (16.0)
Pelvic Abscess	5 (1.3)
Pelvic Inflammatory Disorder	166 (43.0)
Retained product of conception	10 (3.0)
Solitary Intramural Uterine Fibroid	2 (0.5)
Solitary Submucosal Uterine Fibroid/myoma	10 (2.6)
Solitary Subserousal Uterine Fibroid/myoma	6 (1.5)
Uterine Prolapse	1 (0.3)
Total	363(100.0)

Table 3: Association between Gynaecological Disorders and Age.

Diagnosis	Age groups (years)							P-value
	11-20	21-30	31-40	41-50	51-60	61-70	71-80	
Cystitis	-	1(0.3)	2(0.5)	-	-	-	-	0.001
Cervical Prolapse	-	-	-	-	-	1(0.3)	-	
Ovarian Cystic	-	-	21(6.0)	-	-	-	-	
Dilated Endometrial Cavity	-	1(0.3)	-	-	-	-	-	
Endometrial Hyperplasia	-	1(0.3)	-	-	-	-	-	
Endometriosis	12(3.1)	35(9.1)	11(2.8)	8(2.1)	3(0.8)	-	-	
Haematometria	-	1(0.3)	1(0.3)	-	-	-	-	
Incomplete Septic Abscess	1(0.3)	-	-	-	-	-	-	
Intramural Uterine Fibroid/myoma	-	-	3(0.5)	-	-	-	-	
Multiple Uterine Fibroid/myoma	-	-	35(9.5)	24(6.5)	-	-	-	
Pelvic Abscess	2(0.5)	-	1(0.3)	2(0.5)	-	-	-	
Pelvic Inflammatory Disease	34(9.4)	59(16.3)	32(9.4)	31(9.4)	7(1.9)	3(0.8)	-	
Retained product of Conception	1(0.3)	3(0.8)	6(1.7)	-	-	-	-	

Solitary Intramural Uterine Fibroid	-	-	1(0.3)	1(0.3)	-	-	-
Solitary Submucosal Fibroid/myoma	-	-	10(2.6)	-	-	-	-
Solitary Subserousal Uterine Fibroid/myoma	-	3(0.5)	3(0.5)	-	-	-	-
Solitary Uterine Fibroid/myoma	-	-	1(0.3)	-	1(0.2)	-	-
Uterine Prolapse	-	-	-	-	-	1(0.2)	-
Total	53(14.6)	120(33.1)	95(26.2)	76(20.9)	13(3.6)	5(1.4)	1(0.3)

Our findings were also in agreement with a study which found pelvic inflammatory disease as the most observed gynaecological disorder with a distribution of 54.5% (Bassey et al., 2007). The results of our review contradict the submissions of Rogo et al., (1990); Emembolu & Ekwempu, (1998) which showed cervical cancer as the most observed gynaecological disorder with frequencies of 46.2% and 57.1% respectively. Results from this study showed similarity with the results reported in a study conducted by Babarinsa et al., 1998 at Ibadan, Nigeria which showed a significant association between age and diagnosis of gynaecological diseases with a p-value of 0.015 (Babarinsa et al., 1998). Conversely, a non-similarity in results was observed in a study conducted by Yakasai et al., 2013 which presented a non-significant association between age and gynaecological diseases (Yakasai et al., 2013). This review above has displayed remarkable inconsistency in the trend of gynaecological disorders in different populations and factor like age is a plausible explanation for the disparities in the happenings of gynaecological disorders observed in the researches.

CONCLUSION

Pelvic inflammatory disease was the most prevalent among the varied spectrum of gynaecological disorders seen in the study Centre. Age was also observed to have a significant association with gynaecological disorders.

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Conflicts of interest

The authors declare that they have no conflicts of interest.

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