EVALUATION OF UTERINE MALFORMATIONS OF PATIENTS ATTENDING MADONNA UNIVERSITY TEACHING HOSPITAL USING ULTRASOUND

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ABSTRACT

Ultrasound is a common diagnostic tool used for the assessment of uterine morphology over several decades. This research is to determine the various uterine abnormalities observed in patients who underwent ultrascan in Madonna University Teaching Hospital. Radiographs of 400 patients, between the reported ages of 21-49 years (mean age of 34.40 ±5.41) were employed for the study. There were about eleven uterine abnormalities observed with uterine fibroid occurring most in 243 out of 400 patients (60.75%), ovarian cyst was present in 115(28.75%) patients, endometriosis was present in 19(4.75%) patients, submucosa fibroid was present in 10(2.50%)patients, complex ovarian mass was present in 6(1.50%) patients, hydrosalphine was present in 4(1%) patients, hypoplastic uterus was present in 3(0.75%) and adenomyosis uterus was present in 2(0.50%) patients. While Enlarged uterus, Fundal fibroid, Bicornate uterus and Septate uterus were least common with each being present in 1(0.25%) patient respectively. The age range having the highest number of abnormalities were found in patients between the reported ages of 31-35 years with 111 cases (27.75%), while the age range having the lowest number of abnormalities were found in patients between the reported ages of 46-50 years with 26 cases(6.5%). uterine fibriod is seen as the most frequently occurring uterine abnormality. Ultrasound, though relatively simple and noninvasive, can provide valuable and important diagnostic information on the uterus.

KEYWORDS: Ultrasound, Uterine abnormalities, Madonna, Radiological.

INTRODUCTION

Uterine abnormalities represent a major cause of infertility among couples .The assessment of the uterus comes next after history taking, physical examination, semen analysis and ovulation studies.[1] The diagnosis of uterine abnormalities is usually made in patients with previous pregnancy loss, while the prevalence and clinical relevance in the general population is largely unknown.[2] This is partly due to the lack of a simple and accurate diagnostic test which can be used in low- risk patients. Uterine abnormalities are associated with increased risk of miscarriage, premature birth,

Fetal loss, malpresentation and cesarean section.[3] Among several uterine abnormalities, Fibroid has been reported to occur in two out of every ten women who have not gone through menopause.[4] The use of ultrasound to diagnose uterine abnormalities is well established in literature.[3,5] Ultrasound has been shown to have a high specificity and moderate sensitivity when employed in the detection of uterine malformations. Also, findings from ultrasound have been shown to agree with other imaging techniques in evaluation of uterine malformations.[3,5,6]

MATERIALS AND METHODS

Place of Study: The study was conducted at the Radiology Unit of the Madonna University Teaching Hospital which is situated in Elele town of Rivers State, Nigeria.

Sample Studied: This retrospective study was done by using radiographs of 400 patients who undergone ultrasound scan at the Radiology Department of our Teaching Hospital (MUTH) The ages of the patients were recorded as reported Ages as presented in the radiographs.

Data Analysis: Quantitative data were obtained from the radiographs for different types of uterine abnormalities noted and analysed for descriptive statistics using Microsof Excel. The results are presented as below.

RESULTS
Table 1: Table shows the various abnormalities in relation to their occurrence and percentage.

Type of abnormality	Number of occurrence	Percentage (%)
Uterine fibroid	243	60.75
Ovarian cyst	115	28.75
Endometriosis	19	4.75
Submucosa fibroid	10	2.50
Hydrosalphine	4	1.00
Hypoplastic uterus	3	0.75
Adenomyosis uterus	2	0.50
Enlarged uterus	1	0.25
Fundal fibroid	1	0.25
Bicornuate uterus	1	0.25
Septate uterus	1	0.25

Table 2: Shows the reported age range of patients in relation to the different types of uterine abnormalities recorded.

Age Range	Uterine fibroid	Ovarian cyst	Endometriosis	Submcosa fibroid	Hydrosalphine	Hypoplastic uterus	Adenomyosis uterus	Enlarged uterus	Fundal uterus	Bicornate uterus	Septate uterus
21-25	30	16	10	2	-	1	-	-	-	-	-
26-30	23	31	2	7	1	-	-	-	-	-	-
31-35	58	40	7	-	3	1	-	-	1	-	1
36-40	64	23	-	-	-	-	-	-	-	-	-
41-45	46	4	-	1	-	-	2	-	-	-	-
46-50	22	1	-	-	-	1	-	1	-	1	-
Total	**243**	**115**	**19**	**10**	**4**	**3**	**2**	**1**	**1**	**1**	**1**

Table 3: Shows the overall distribution of the number patients in relation to age range.

Age range	Frequency	Percentage
21-25	59	14.75%
26-30	64	16%
31-35	111	27.75%
36-40	87	21.75%
41-45	53	13.25%
46-50	26	6.5%
Total	**400**	**100%**

DISCUSSION
In this study, the reported ages for the patients ranged from 21-49 years with mean age of 34.50±5.41. The results showed that the age range having the highest number of abnormalities were found in women between the reported ages of 31-35 years with 111 cases (27.75%), while the age range having the lowest number of abnormalities were found in patients between the reported ages of 46-50 years with 26 cases (6.5%). In this study we reported that uterine fibroid has the highest frequency among the patients (60.75%) and it is most common in patients between the reported ages of 41-45years. The high frequency of uterine fibroid observed in this study agrees with report from a previous study.[4] While Enlarged uterus, Fundal fibroid, Bicornate uterus and Septate uterus were least common among the patients (0.25%) and found in women between the reported ages of 31-35years for fundal fibriod and septate uterus, and 46-50years for Enlarged uterus and Bicornate uterus. Out of the eleven structural abnormalities that were recorded, three of them (septate uterus, bicornate uterus and Hypoplastic uterus) are congenital and the other eight are acquired.

Uterine malformations have been reported by several authors as the causes of miscarriage, preterm labour, fetal loss, malrepresentation, cesarean sections.[3]

Although MRI provides better investigations of the female genitourinary tract, it is however proven that Ultrasound have a high degree of concordance with MRI in diagnosing of uterine malformations and that both techniques are equally valuable in showing the relationship between the uterine cavity and the fundus.[6]

Conclusively, the study has highlighted the importance of ultrasound in detection of uterine abnormalities, both

congenital and acquired and as such should be encouraged among women of reproductive age.

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