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Research Article

Prevalence of Endometrial Lesions in a Southern Tertiary Hospital in Nigeria (Jan. 2005-Dec. 2012)

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Abstract: The aim and objective of the study was to determine the pattern of endometrial lesions (endometrial hyperplasia and endometrial carcinoma). A cross sectional study of results of 123 recorded diagnosed reports of patients within our study years (Jan. 2005-Dec. 2012) was obtained from the departmental register. These were analysed using the SPSS version 16 per each year. The results were represented in pie chart. It showed that the ages of 30-40 years were most affected; closely followed by ages 40-50 and 20-30 years. Our findings show that early/frequent evaluation of the endometrium from younger ladies of age range 30 years and above, especially those with antecedent family history in most cases could help in early detection and management.
Keywords: Endometrial lesions (endometrial hyperplasia and carcinoma), Age, Histology.

INTRODUCTION

An endometrial lesion like hyperplasia which is an abnormal proliferation of glands relative to the stroma deserves attention because of its consequences of progressionto endometrial carcinoma. This has been supported by clinico-pathologic and epidemiologic researches which have supported the potential of endometrial hyperplasia and concept of glandular lesions resulting to carcinoma [1]. Other studies on molecular levels have affirmed this hence both hyperplasia and carcinoma share some definite genetic alterations. Carcinoma of endometrium is seen more in females between ages 55-65 years [2]. More recent, molecular evaluations have shown endometrial hyperplasia as a prelude to endometrial carcinoma [3]. This is evidenced by mutations of PTEN tumor suppressor gene which is seen in 30-80% of endometrial carcinomas and in about 20% of endometrial hyperplasias [4]. Other mutations like p53 mutation is seen in 90% of serous endometrial carcinoma [5].

In USA and most western world, endometrial malignancy have been seen in elderly patients with associated risk factors such as obesity, multiparity or oligoparity and in women taking exogenous estrogen therapy for post menopausal symptoms, as seen in affluent class in caucassians [6-9]. This could also be seen in low class negroid race women, multiparous, with low stature who have not received any hormonal treatment.10 The prognosis in such cases are always bad [10].

MATERIALS AND METHOD

A cross sectional study of 123 samples of endometrial biopsies/ samples diagnosed as endometrial hyperplasia and carcinomas reported and recorded in the departmental register from January 2005 to December 2012 were retrieved. These were analysed using SPSS version 16 with emphasis on age, number of occurrence/percentages in each year of study.

RESULTS

Fig. 1, shows the age distribution of cases for the year 2005. Age group 40-50 years accounted for most (50%), while age groups 20-30 years and age groups 50-60 years each accounted for 10% of cases. Also in 2005, 90% of the lesions were endometrial hyperplasia and 10% endometrial adenocarcinoma.

In 2006, a total of 18 cases were seen. Majority of them (44.4%) were seen in age group 30-40 years, while 33.3% of cases were seen in age group 40-50 years. The least number of cases were seen in age groups 50-60 years nd age groups 60-70 years, each accounting for 5.6% respectively, as shown in Fig. 2. Endometrial hyperplasia accounted for 88.9% of cases

while 11.1% of cases was due to endometrial carcinomas.

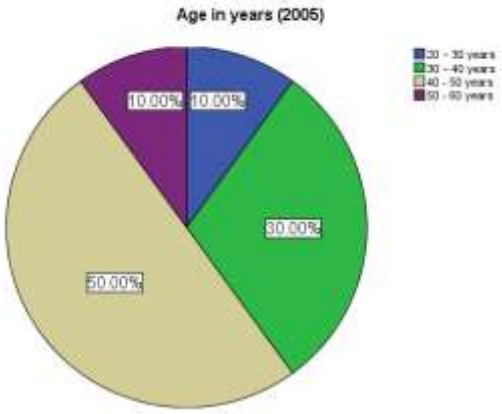

Fig. 1: Age distribution of cases in 2005

Table 1: Lesion types seen in 2005

Lesion type	Frequency (%)
Endometrial hyperplasia	9 (90)
Endometrial carcinoma	1 (10)
Total	10 (100)

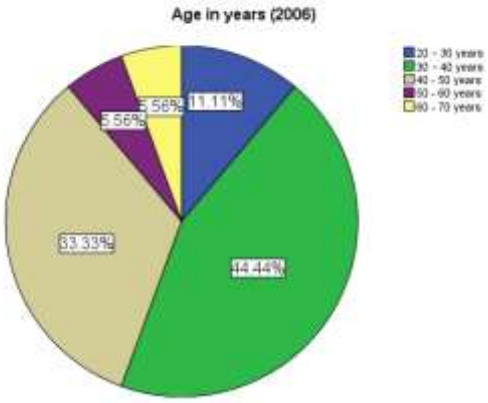

Fig. 2: Age distribution of cases in 2006

Table 2: Lesion types seen in 2006

Lesion pattern	Frequency (%)
Endometrial hyperplasia	16 (88.9)
Endometrial carcinoma	2 (11.1)
Total	18 (100)

Fig. 3 shows the age distribution of cases, with majority (50%) occurring in 30-40 years age group, while age group 20-30 years accounted for 21.4% of cases. All 14 cases seen were endometrial hyperplasia. No case of endometrial carcinoma was seen.

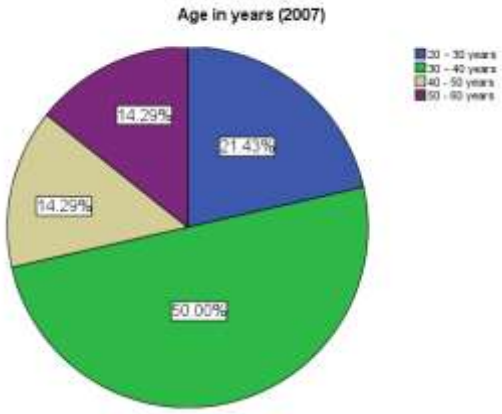

Fig. 3: Age distribution of cases seen 2007

In 2008, 30.8% of cases were seen in age groups 30-40 years, while age groups 40-50 years and 60-70 years each accounted for 15.4% of cases as shown in Fig. 4. Endometrial hyperplasia accounted for 84.6% of lesions while 15.4% of cases were malignant lesions.

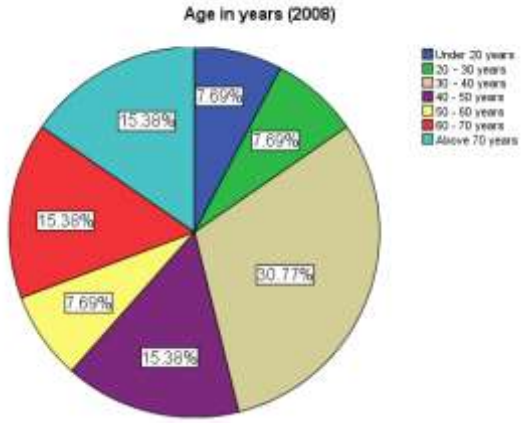

Fig. 4: Age distribution of cases in 2008

Thirty three cases were seen in 2009 with majority of cases (48.5%) occurring in age group 30-40 years, followed by 24.2% of cases seen in 20-30 years age group. Age groups 40-50, 50-60 and 60-70 years each accounted for 6.1% respectively, as shown in Fig. 5. 81.8% of cases were due to endometrial hyperplasia, while the remaining was due to endometrial carcinoma as shown in table 5.

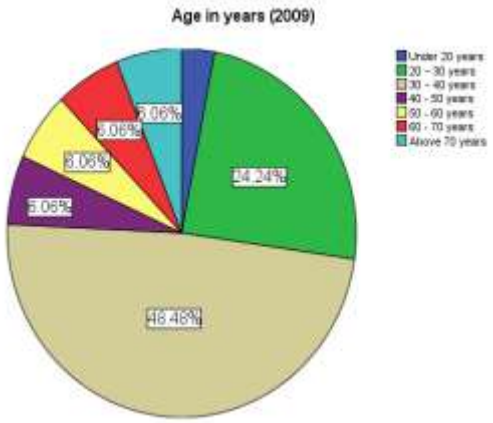

Fig. 5: Age distribution of cases in 2009

Table 5: Lesion type distribution in 2009

Lesion type	Frequency (%)
Endometrial hyperplasia	27 (81.8)
Endometrial carcinoma	6 (18.2)
Total	**33 (100)**

In 2010, age groups 20-30 years and 30-40 years each accounted for 36.4% and 40.9% of cases respectively. The least number of cases was seen in age group 50-60 years, accounting for 4.5% of cases, as shown in Fig. 6. All cases were due to endometrial hyperplasia.

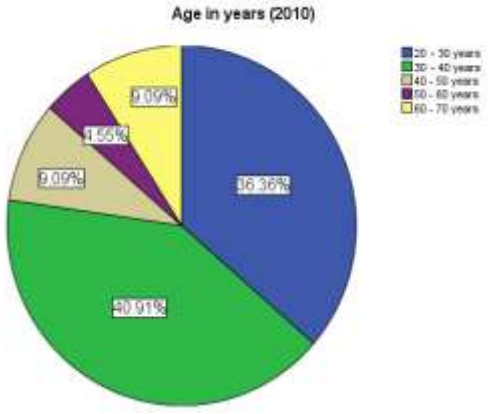

Fig. 6: Age distribution of cases in 2010

In 2011, 8 cases were seen involving all age groups, with the least number of cases (12.5%) seen in age group 50-60 years. All cases except one were due to endometrial hyperplasia.

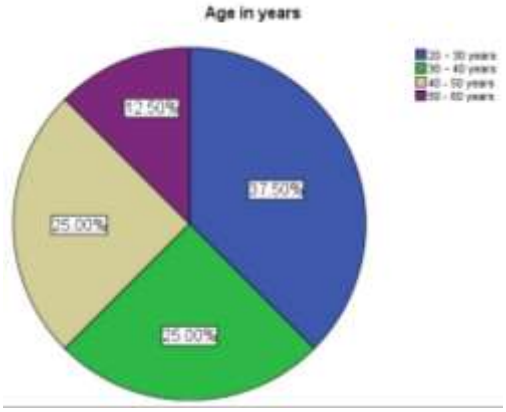

Fig. 7: Age distribution of cases in 2011

Only 5 cases were seen in 2012 and 3 (60%) of it occurred in age group 30-40 years, while a case each was seen in age groups 40-50 years and 50-60 years, as shown in Fig. 7. Four of the cases were due to endometrial hyperplasia while 1 was due to endometrial carcinoma.

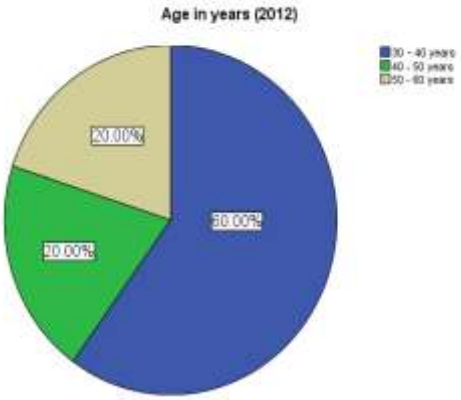

Fig. 7: Age distribution of 2012 cases

DISCUSSION

We observed that the average age of both lesions in our environment was 30-40 years. This is seen to occur in six (6) years out of the total seven (7) years of the study period. These could be associated to early exposure, arbitrary use of contraceptive devices and cultural attributes of our area, for example, culture of fattening of women before marriage as in Efik culture of Calabar; as obesity is encouraged and this as well known is a leading cause of this lesion.

We present a reasonable number of endometrial hyperplastic lesions in relation to endometrial malignancies per year and age distribution in our area, with particular emphasis of the vulnerable years of the affected patients. It showed that the most vulnerable years of the lesions are age group 30-40 years, which is quit young for the expected documented/known age of the lesions in terms of malignancy (endometrial carcinoma). Though endometrial carcinomas are known to be a disease of elderly women but have been seen at ages of 40 years

and even younger age group [11-15]. This is also applicable in our study as most of the malignant lesions in our study were seen in age group 30-40 years. This is seen to occur in six years out of the seven years of study (January, 2005-December, 2012). Age groups 40-50years and 20-30 years were also much involved closely following 30-40 years group. These go to say that the disease could occur in any age group despite been common in elderly age. Since hormonal therapy have been implicated in transformation of endometrial hyperplasia to adenocarcinoma of endometrium it thus follows that in young women it may be due to treatment due to long standing menstrual abnormalities with hormones [12]. At times, polycystic ovary or ovarian tumors following excessive estrogen stimulation might have resulted to development of endometrial carcinoma at young age [16-18]. Despite been a disease of older women our observation of seeing the malignant form (endometrial carcinoma in women of age group 40-50 years or younger has been seen in other studies [11-15,19]. Moreover, most of these younger women with endometrial carcinoma must have presented with history of sterility, amenorrhoea or irregular menstrual flow, obesity, hypertension and hirsutism [12]. This have been attributed to over use of estrogen on such patients with consequent endometrial carcinoma developing.

CONCLUSION

We observed that the average age of both lesions in our environment was 30-40 years. This is seen to occur in six (6) years out of the total seven (7) years of the study period. These could be associated to early exposure, arbitrary use of contraceptive devices and cultural attributes of our area, for example, culture of fattening of women before marriage as in Efik culture of Calabar; as obesity is encouraged and this as well known is a leading cause of this lesion.

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