

Histopathological Patterns of Gynecological Lesions at the Imo State University Teaching Hospital, Orlu, Nigeria: A 5 Year Review From 2009 – 2013

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ABSTRACT

Background: Gynecological lesions are a common reason for women to seek specialist care. The nature of these lesions range from benign to malignant and include a subset of intermediate or premalignant lesions.

Aim: This study set out to analyze the frequency of histopathologically evaluated lesions of the genital tract within a tertiary healthcare institution in a semi-urban setting and by extension contribute to the existing database as well as help the clinician promote advocacy and counseling that is evidenced based.

Materials and methods: This was a retrospective study of 355 cases of gynecological specimens sent for histopathology at department of morbid anatomy as well as clinical data from the relevant case notes obtained from the medical records department of the Imo State University Teaching Hospital Orlu, all data were retrieved from records in these departments from the period of 1st January 2009 to 31st December 2013. Data was analyzed using SPSS version 20.

Results: A total of 355 specimens were received during a 5 year period. Of these the vast majority were benign lesions accounting for 265 cases (74.6%). The benign lesions seen included; uterine leiomyomas 120 cases (33.8%), cervicitis had 32 (9.0%), there were 22 cases (6.2%) of uterovaginal prolapse, product of conception had 20 (5.6%), cervical polyps and cysts had 11 cases (3.1%), adenomyosis and endometriosis had 4 cases (1.1%), serous cystadenoma reported 9 cases (2.5%). Cystic teratoma and simple ovarian cyst had 8 cases (2.3%) each. Endometrial hyperplasia, ovarian thecoma and corpus lutein cyst all had 7 cases (2.0%) respectively. There were 3 cases (0.8%) each of Nabothian cyst and ectopic pregnancy. Fibromas accounted for 2 cases (0.6%). Bartholin's cyst and salpingitis had 1 case (0.3%) each.

The malignant lesions constituted 90 cases (25.4%). Cancer of the cervix of the invasive squamous variety in 45 cases (12.7%), cervical intraepithelial neoplasia was seen in 32 cases (9.0%), cervical adenocarcinoma had 7 cases

(1.9%), malignant ovarian lesions accounted for a total of 6 cases namely; ovarian choriocarcinoma accounting for 3 cases (0.8%), ovarian granulosa tumors registered 2 cases (0.6%), while Burkitt's lymphoma had 1 case (0.3%).

Conclusion

Uterine fibroids were the commonest benign lesion for which women underwent gynecological surgery. Invasive squamous cell cancer of the cervix was the most frequently encountered malignancy.

Keywords : Malignant, Premalignant, Gynecological, Orlu.

INTRODUCTION

Pathology is both a medical specialty and an investigative scientific discipline, concerned with understanding the essential nature of human disease; anatomic pathology has a unique place in the practice of evidence based medicine [Crawford JM, 2007]. Gynecological lesions have a wide range of clinical features. The need for a thorough history, physical examination and laboratory evaluation cannot be overemphasized. However due to the fact that accurate diagnoses is the cornerstone of proper disease management, the need for histopathological analysis of post-operative specimens is thus essential. The delineation of benign from malignant lesions is occasionally only possible using this technique to evaluate specimens [Attanucci CA et al, 2004].

More so with premalignant and malignant lesions; these may not have any overt features especially in their early stages and hence may go undetected. Even those that are malignant may produce non-specific clinical signs and symptoms, a good example being ovarian cancers. Many ovarian tumors are asymptomatic in the early stages and are unfortunately diagnosed in the advanced state. The high mortality rate associated with ovarian cancer is due to its late detection, this has led some researchers to term it the "Silent Killer" [Jaffer Y et al, 2013].

Histopathology not only assists in diagnoses and deciding on treatment options but it also helps in the understanding of prevalence, mean age of affection as well as guiding prognostic projections by clinicians [Vinh-Hung V et al, 2007].

The purpose of the study was to add to the existing database on the histopathological patterns of diseases of gynecological origin.

METHODOLOGY

The study was done at the Imo State University Teaching Hospital, Orlu in Southeastern Nigeria. This was a retrospective study of 355 cases of gynecological specimens sent for histopathology at department of morbid anatomy between the period of 1st January 2009 to 31st December 2013, in addition clinical data from the relevant case notes were obtained from the medical records department.

All the data were analyzed on SPSS version 20. The frequency of benign and malignant tumors was calculated.

DISCUSSION

The commonest gynecological lesion seen was leiomyoma uteri; accounting for a total of 120 cases (33.8%), this is captured in Table 1. This is significant as fibroids are clinically detectable in 25 – 80% of reproductive aged women in community based studies [Carlson KJ et al, 1993]. Negro women are reported to have a higher incidence of uterine fibroids at any age [Kjerulff KH et al, 1996] as well as more severe symptoms [Stewart EA et al, 2013]. A study in Enugu, Nigeria gave an incidence of 25.9% [Ozumba et al, 2011] and in Bayelsa, Nigeria an incidence of 29.3% was reported [Ekine AA et al, 2015]. Much higher incidences have been reported such as 70 – 80% in those approaching 50 years [Baird DD et al, 2003]. It is clearly a very common non-malignant tumor of the genital tract as reflected even in this study. Fibroids are a leading cause for gynecological consultation and may affect obstetrical outcomes [Ouyang DW et al, 2006].

	Number	Percentage	Mean Age	SD
Total Sample	355	100%		
Diagnostics subsets				
Benign Lesions	265	74.5%		
Uterine Leiomyomas	120	33.8%	35.7	10.3
Cervicitis	32	9.0%	44.9	10.6
Uterovaginal Prolapse	22	6.2%	59.2	6.4
Products Of Conation	20	5.6%	29.6	7.4
Cervical polyps and cysts	11	3.1%	30.8	9.8
Adenomyosis and Endometriosis	4	1.1%	37.2	4.7
Serous Cystadenoma	9	2.5%	44.1	10.8
Cystic Teratoma	8	2.3%	26.2	6.9
Simple Ovarian Cyst	8	2.3%	25.3	10.7
Endometrial hyperplasia	7	2%	38.1	7.8
Ovarian Thecoma	7	2%	40.8	10.3
Corpus luteum Cyst	7	2%	25.5	7.2
Fibroma	2	0.6%	40.0	5.0
Nabothian Cyst	3	0.8%	48.2	4.5
Ectopic Pregnancy	3	0.8%	27.1	2.8
Salpiingitis	1	0.3%	38	-
Bartholin's Cyst	1	0.3%	42	-
Premalignant and Malignant lesions	90	25.4%		
Invasive Squamous Carcinomas	45	12.7%	40.5	16.1
Cervical Intraepithelial Neoplasia	32	9.0%	43.2	12.4
Cervical Aderocarcinomas	7	2%	42.3	8.8
Ovarian Choriocarcinomas	3	0.8%	39.8	4.1
Ovarian Granulosa tumors	2	0.6%	31.0	2.0
Ovarian Burkitt's lymphoma	1	0.3%	15	-

Table 1. Histopathology, frequency, mean age and SD of gynecological diseases.

The mean age of those with fibroids was 35.7 years SD 9.9, in this study which tallies with the ages reported in other studies that show that symptomatic fibroids are common among women within the reproductive age bracket and in many cases there is a need for therapeutic intervention in these women including hysterectomy [De La Cruz D, et al 2017].

Cervicitis accounted for 32 cases (9.0%) being linked to Neisseria gonorrhoeae, Chlamydia and human papilloma virus while in over half of the cases the exact etiology was unidentified. Broad spectrum antibiotics may be beneficial to some but many may not benefit from such therapy [Taylor SN et al, 2013]. A total of 20 cases of abortion with retained products of conception being seen on

histopathology. Twenty two cases of uterovaginal prolapse were seen in mainly postmenopausal females with a mean age of 59.2 years SD 6.4. They were all multiparous with a parity of more the 4 in 80% of these cases. Induced abortions accounted for 6 cases out of a total of 20 cases (5.6%) of abortion. This may however not reflect the true rates of induced abortions in the larger society as the cases seen in tertiary centers tend to be the ones with post-abortion complications; one mortality was seen in a case that had become complicated by sepsis. A study in south west Nigeria among women who had undergone one or more induced abortion, only 21.5% used any form of contraception at first intercourse after the procedure [Lamina MA, 2015]. The bulk of the abortions in our study were spontaneous abortions mostly in early pregnancy (first trimester). A total

of 11 cases of cervical cysts and polyps were seen, the mean age here was 30.8 years SD 9.8 whereas the mean age for cases of serous cystadenoma was 44.1 years SD 10.8. Adenomyosis and endometriosis accounted for 4 cases; there was associated infertility in all four cases. Infertile women are 6 to 8 times more likely to have endometriosis than fertile women [Verkauf BS, 1987]. Chronic pelvic pain was seen in one of the cases of endometriosis. Ectopic gestations accounted for 3 cases seen, these were tubal pregnancies and all three had total salpingectomy as the surgical intervention/treatment modality. Other benign lesions including cystic teratomas, endometrial hyperplasia, thecoma, corpus lutein cysts, simple ovarian cysts, Nabothian cyst, Bartholin cyst, salpingitis and fibromas accounted for the remaining 47 cases (13.2%) seen.

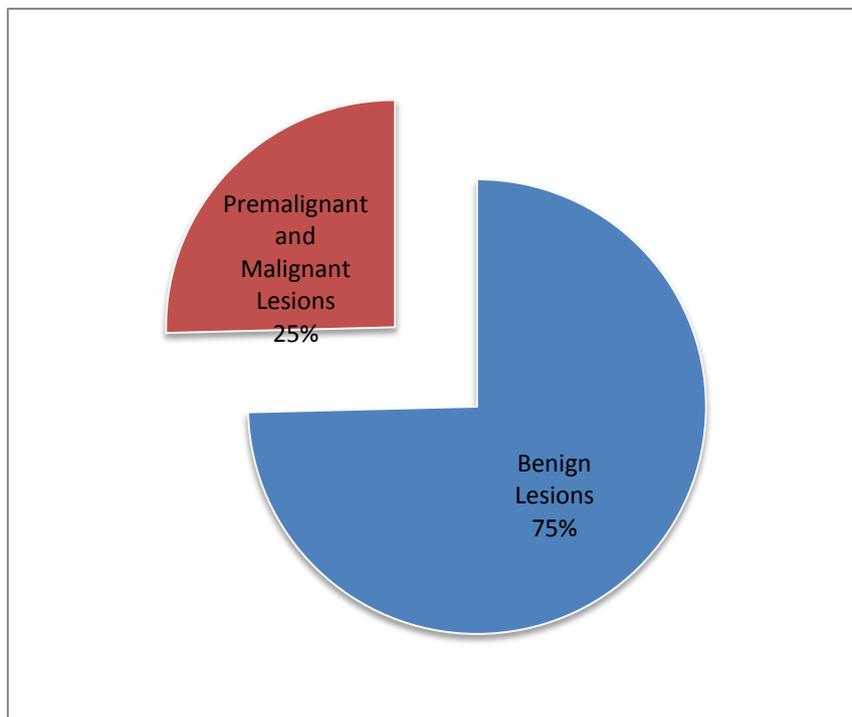


FIGURE 1: Percentages of benign, premalignant and malignant lesions.

The premalignant and malignant lesions made up 90 specimens (25.4%); these were diverse and included lesions of the cervix, uterus and ovaries. Invasive squamous cell carcinoma of the cervix was seen in 45 cases (12.7%). For these cases mean age was 40.5 years SD 16.1. Cervical intraepithelial neoplasia recorded 32 cases (9.0%), twenty eight of these were preceded by pap smears that revealed either low or high grade intraepithelial lesions. The remaining 4 were incidental findings. Seven cases of cervical adenocarcinoma were reported. This highlights the

importance of cervical cancer screening in developing countries like Nigeria where no national cervical screening guideline exists [Uzoma OI, 2016]. The fact that various studies show that it is the leading genital tract malignancy goes further to buttress the need for robust screening programs [Dim CC, 2012]. Ovarian Granulosa cell tumors of the ovaries were seen in 2 cases, Burkitts lymphoma had 1 case (0.3%), although relatively rare in adults, Burkitt lymphoma constitutes more than 40% of pediatric non-Hodgkin lymphomas [Onimoe GI et al, 2011].

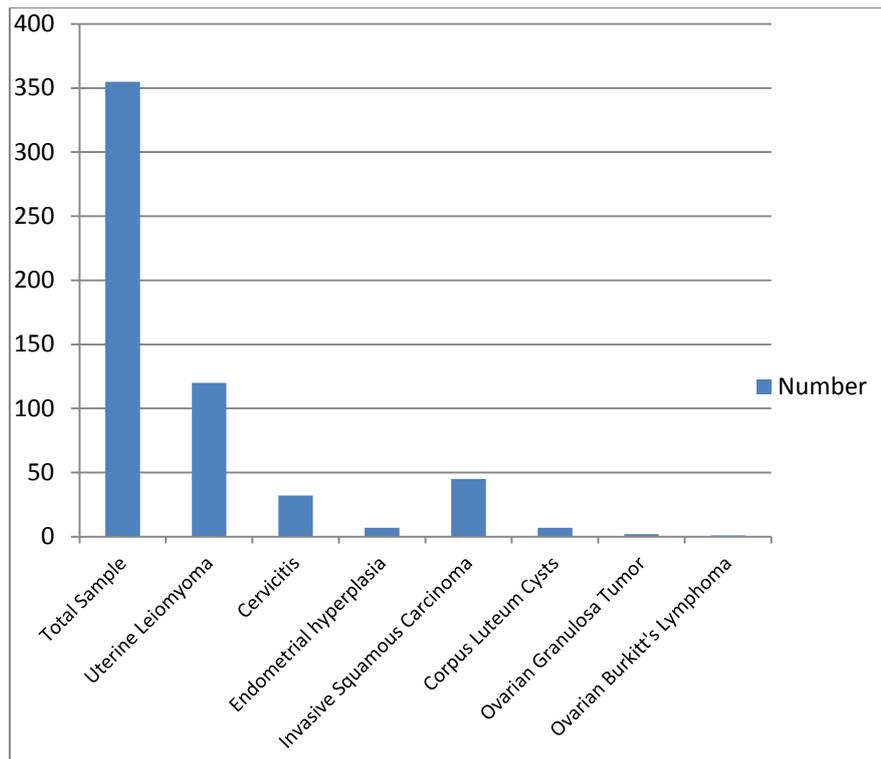


FIGURE 2. Bar chart showing a cursory view of some of the lesions seen in numerical terms.

Conclusion

Of the specimens analyzed uterine fibroids were the commonest benign lesion for which women underwent gynecological surgery. Invasive squamous cell cancer of the cervix was the most frequently encountered gynecological malignancy. It can be safely said that histopathology plays a crucial role in the study of gynecological diseases.

CONFLICT OF INTEREST

The authors have no conflict of interest.

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