



HISTOPATHOLOGIC REVIEW OF OVARIAN TERATOMAS IN PORT HARCOURT.

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Abstract: Background: Ovarian teratomas are the commonest germ cell tumours of the ovary and they are seen in the young but can occasionally be seen in the elderly with an increased risk of malignant transformation.

Method: This is an 8 years review of ovarian teratomas in the University of Port Harcourt Teaching Hospital and Braithwaite Memorial Specialist hospital both tertiary health facilities in port Harcourt.

Results: Benign Cystic Teratomas were 120 accounting for 93.8% of all germ cell tumours. There were 2 cases of immature teratomas accounting for 1.6%, and cystic teratomas with malignant transformation 2 accounting for 1.6%. Teratomas with malignant transformation were all observed in postmenopausal women in the 51-60 years' age group while immature teratomas were encountered in the 21-30 years' age group.

Conclusion: Mature cystic teratomas are the commonest ovarian germ cell tumours with an increased risk of malignant change in older women.

Key words: Teratomas, Elderly, Malignancy.

Introduction: The ovary is an important component of the female genital tract and plays a major role in fertility; it undergoes cyclic hormonal stimulation monthly and is thus prone to both neoplastic and non-neoplastic lesions. In premenopausal women, most adnexal masses

are benign with an overall incidence of malignancy of only 1–3: 1000¹. Germ cell tumours are a varied group of benign and malignant neoplasms derived from primordial germ cells²⁻⁶. Ovarian neoplasm of germ cell origin represent 15 to 20 percent of ovarian tumours⁷. Germ cell tumours are commoner in adolescent and young females in their early twenties, and 30% are malignant⁸. Mature cystic teratomas are the commonest benign tumours of the ovary⁹, teratomas are less common in women greater than 50 years of age and seems to have a relationship with malignant

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change as reported¹⁰. The Aim of this study is to assess the prevalence of ovarian teratomas in this part of the world as literatures are scanty for such a common lesion, establish a data on ovarian teratomas and compare results with other regions.

Materials and Method: This was an eight years(2009-2016) retrospective review of surgical pathology specimen from the Department of anatomical pathology of University of port Harcourt teaching hospital and the Braithwaite Memorial Specialist
Germ cell tumours

hospital, both tertiary health care facilities in port Harcourt in the Niger delta region of Nigeria .Socio-demographic information such as age, parity, presenting complaints were also obtained from the day books in both centres .Histopathologic slides were reviewed and missing or broken slides were recut from archival paraffin-embedded tissue blocks. Results are presented in simple percentages.

Limitations: Patients whose tissue blocks were not available were excluded from this study.

Results:

Age	Benign cystic Teratomas	Malignant cystic teratomas (malignant transformation)	Yolk sac tumour	Immature teratomas	Total
0-10	2				2
11-20	14		2		16
21-30	48			2	50
31-40	41		2		43
41-50	3				3
51-60	12	2			14
61-70					
71-80					
Total	120(93>8%)	2(1.6%)	4 (3.1%)	2(1.6%)	128(100%)

Total benign – 120

Total malignant – 8

Age	Benign cystic Teratomas	Malignant cystic teratomas	Total
0-10	2		2
11-20	14		14
21-30	48		48
31-40	41		41
41-50	3		3
51-60	12	2	14
61-70			
71-80			
No Age Indicated			
Total	120(98.4%)	2 (1.6%)	122(100%)



Figure 1: Photo shows a large cystic teratomas in a 67-year-old woman.

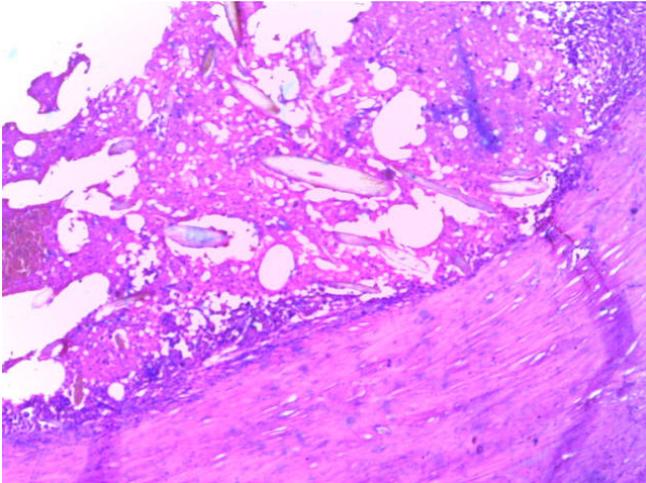


Figure 2: Photomicrograph showing mature hair shaft in a cystic teratomas

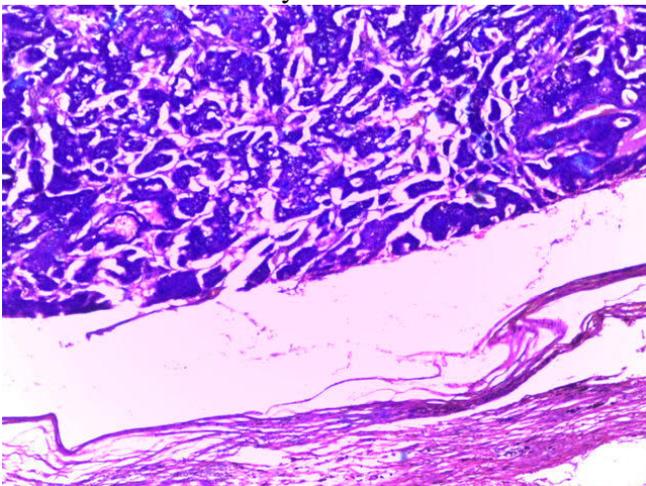


Figure 3: Photomicrograph showing malignant change in a cystic teratomas.

The participants in this study were aged between 10-80 years of age. A total of 128 Germ cell tumours were seen from both centres. Commonly encountered ovarian tumours were Benign Cystic Teratomas, Malignant Teratomas and Yolk Sac Tumours. Benign Cystic Teratomas were 120 accounting for 93.8% of all germ cell tumours, while yolk sac tumour accounted for merely 3.1%. There were 2 cases of immature teratomas accounting for 1.6%, and cystic teratomas with malignant transformation 2 accounting for 1.6%. Teratomas with malignant transformation were all observed in postmenopausal women in the 51-60 years' age group while immature teratomas were

encountered in the 21-30 years' age group. The majority of Benign Cystic teratomas were seen in the age group of 21-30 years of a total of 122 Benign Cystic teratomas, 2 underwent malignant transformation.

Discussion: This study showed that germ cell tumours of the ovary are predominantly benign, this is in keeping with several studies done ^{9,11,12}. Benign cystic teratoma was the commonly seen tumour of the ovary. Benign Cystic teratomas were commonly seen in women in the age range of 21-30 years as has been reported previously fewer cases were reported with increasing age as germ cell tumours are common in the young ⁸. Two cases of benign cystic teratomas underwent malignant change out of a total of 14 cases in women aged 51-60 years. The mean age of malignant transformation in this study being 55 years which is like other studies ¹⁵. This change is also said to be 5 times more common in postmenopausal women than before menopause and may be related to the duration of lesion before surgical intervention is sort as germ cell tumours develop in the younger reproductive age group thus older women with benign cystic teratomas must have harboured it for a considerable length of time. Several other risk factors have been proposed for this malignant transformation and they include large tumour masses and elevated levels of CA 125 ¹⁵ etc. The two tumours that underwent malignant change in this study were large sized tumours as has been reported from other studies ¹⁵.

Conclusion: Mature cystic teratomas are the commonly encountered ovarian germ cell tumour. In postmenopausal women Benign cystic teratomas is associated with an increased risk of malignant transformation and such women should be closely monitored.

Conflict of interest: None

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