ORIGINAL RESEARCH

Histopathological pattern of adnexal masses

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ABSTRACT

Background: An adnexal mass refers to a lump or growth located near the uterus, typically in the ovaries, fallopian tubes, or surrounding tissues.The present study was conducted to assess the histopathological pattern of adnexal masses. **Materials & Methods:**48 adnexal masses received in the department of Pathology were recruited for the study. Specimens were labelled. Gross examination was done and the tissue was preserved in 10% formalin immediately. After fixation of the tissue for 24-48 hours, it was sectioned and processed for microscopy. Slides were stained with Hematoxylin and Eosin stain. **Results:** age group 20-40 years had 5, 40-60 years had 30 and >60 years had 13 patients. Histology of adnexal masses showed inflammatory lesions in 3, ectopic gestation in 10, non- neoplastic cyst in 2, surface epithelial lesion in 22, germ cell tumor in 8, metastatic malignancyin 2, and sex cord stromal tumor in 1 case. Symptoms were menstrual irregularities in 19, pain in 35, and abdominal masses in 21 patients. Ovarian neoplasm was benign in 25, borderline in 5 and malignant in 3 cases. The difference was significant (P< 0.05). **Conclusion:** A common diagnostic challenge for the treating physician is an adnexal mass. Patients in the reproductive age group frequently have adnexal masses as a result of ectopic pregnancies. Another important factor contributing to adnexal mass is ovarian neoplasm.

Keywords: adnexal mass, ectopic pregnancies, neoplastic cyst

INTRODUCTION

An adnexal mass refers to a lump or growth located near the uterus, typically in the ovaries, fallopian tubes, or surrounding tissues. These masses can be benign (non-cancerous) or malignant (cancerous) and can vary in size, shape, and composition.[1]Adnexal masses may or may not cause symptoms, depending on their size, location, and whether they are benign or malignant. Common symptoms associated with adnexal masses include pelvic pain or pressure, bloating, changes in bowel or bladder habits, abnormal vaginal bleeding, and pain during intercourse.[2]

Differential diagnosis of an adnexal mass is difficult and might range from ovarian cancer to a functioning cyst to potentially fatal ectopic pregnancies.[3] About 30% of all malignancies of the female genital tract are ovarian cancers, which continue to be the most common cause of cancer in women. According to age-standardized incidence, ovarian cancer is the sixth most frequent cancer worldwide.Diagnosis of an adnexal mass typically involves a combination of imaging studies (such as ultrasound, MRI, or CT scan), physical examination, and laboratory tests (including tumor markers such as CA-125).[4] A pelvic examination may reveal an enlarged or palpable mass in the pelvis, and imaging studies can provide further details about the size, location, and characteristics of the mass.[5]Ovarian cancers typically have very late diagnosis dates due to their vague and infrequent symptoms, which typically result in a very bad prognosis.[6]A total of 45% of people survive for five years, mostly as a result of a late diagnosis of the illness. The early identification of ovarian cancer is critical since it improves the prognosis. The gold standard for diagnosing ovarian cancer is still histopathology.[7]The present study was conducted to assess the histopathological pattern of adnexal masses.

MATERIALS & METHODS

The present study was conducted on 48 adnexal massesreceived in the department of Pathology All were informed regarding the study and their written consent was obtained.

Data such as name, age, etc. was recorded.Specimens were labelled. Gross examination was done and the tissue was preserved in 10% formalin immediately. After fixation of the tissue for 24-48 hours, it was sectioned and processed for microscopy. Slides were stained with Hematoxylin and Eosin stain. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Age wise distribution of patients

Age group (years)	Number	P value
20-40	5	0.01
40-60	30	
>60	13	

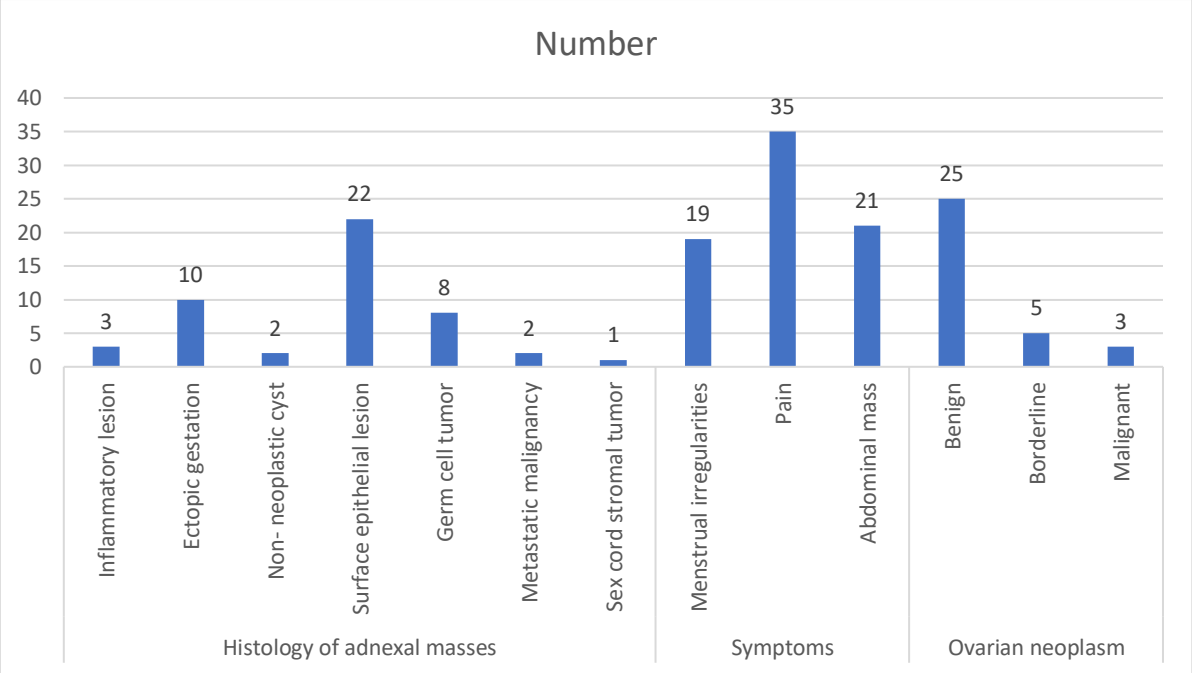
Table I shows that age group 20-40 years had 5, 40-60 years had 30 and >60 years had 13 patients.

Table II Assessment of parameters

Parameters	Variables	Number	P value
Histology of adnexal masses	Inflammatory lesion	3	0.01
	Ectopic gestation	10	
	Non-neoplastic cyst	2	
	Surface epithelial lesion	22	
	Germ cell tumor	8	
	Metastatic malignancy	2	
	Sex cord stromal tumor	1	
Symptoms	Menstrual irregularities	19	0.05
	Pain	35	
	Abdominal mass	21	
Ovarian neoplasm	Benign	25	0.04
	Borderline	5	
	Malignant	3	

Table II shows that histology of adnexal masses showed inflammatory lesions in 3, ectopic gestation in 10, non-neoplastic cyst in 2, surface epithelial lesion in 22, germ cell tumor in 8, metastatic malignancy in 2, and sex cord stromal tumor in 1 case. Symptoms were menstrual irregularities in 19, pain in 35, and abdominal masses in 21 patients. Ovarian neoplasm was benignin 25, borderline in 5 and malignant in 3 cases. The difference was significant (P< 0.05).

Graph I Assessment of parameters



DISCUSSION

Adnexal masses can be categorized into several types based on their origin and characteristics. Ovarian cysts are fluid-filled sacs that develop within or on the surface of the ovary.[8,9]Ovarian tumors are solid masses that arise from the ovarian tissue and can be benign or malignant.Fallopian tube masses are growth or cysts that develop within the fallopian tubes.[10]Dermoid cystscontain a mixture of tissues, including skin, hair, and sometimes teeth, that can develop in the ovaries.[11]Endometriomas are cysts filled with old blood and tissue that develop as a result

of endometriosis, a condition where tissue similar to the lining of the uterus grows outside the uterus.[12]The present study was conducted to assess the histopathological pattern of adnexal masses.

We found thatage group 20-40 years had 5, 40-60 years had 30 and >60 years had 13 patients.Bhargava et al[13]studied the histopathological nature of adnexal masses. 110 cases of adnexal masses who underwent surgical intervention during the study period of one year were included in the study. 79% of cases of adnexal masses had an ovarian origin, 15.45% cases were of tubal origin and 5.45% cases had combined pathology i.e due to tubovarian abscess and endometriosis. Among Ovarian lesions 9.1% had non neoplastic cyst like corpus luteal cyst or endometriosis whereas 50% cases had a surface epithelial lesion. 77 cases out of a total of 110 were ovarian in origin, out of which 57(74%) were benign, 05(6.5%) were borderline and 15(19.5%) were malignant,

We observed thathistology of adnexal masses showed inflammatory lesions in 3, ectopic gestation in 10, non- neoplastic cyst in 2, surface epithelial lesion in 22, germ cell tumor in 8, metastatic malignancy in 2, and sex cord stromal tumor in 1 case. Symptoms were menstrual irregularities in 19, pain in 35, and abdominal masses in 21 patients. Ovarian neoplasm was benign in 25, borderline in 5 and malignant in 3 cases. Seemer et al[14] included 5 cases of tubal and ovarian lesions by receiving salpingoopherectomy and oopherectomy material from the department of obstetrics and gynaecology. The necessary information was collected through performas of biopsy and from the record files of concerned cases. Out of 75 cases, 45 (60%) ovarian, 25 (33.33%) tubal, and 5 (6.66%) cases showed simultaneous involvement of both tube and ovary. Amongst 25 tubal lesions,17 were of ectopic gestation, 2 of salpingitis, 3 of hydrosalpinx, 2 of haematosalpinx and 1 case of leiomyoma of bizarre(benign).From 45 ovarian lesions,24 were(19 benign and 5 malignant) neoplastic,15 simple serous cysts,3 follicular cyst,2 theca leuteal cyst and one case of non-specific oophoritis. Clinico-pathological correlation of tubo-ovarian masses can be enhanced to 100% with the help of USG, b-HCG, uterine curettage and laparoscopy.

Mittal et al[15]classified the lesions of tubes and ovaries and to correlate the various clinical and histopathological findings with age, chief complaints, and microscopic appearances of lesions. Out of 75 cases, 51 (68%) ovarian, 18 (24%) tubal, and 6 (8%) cases showed simultaneous involvement of both tube and ovary. Amongst 18 tubal lesions,16 were of ectopic gestation (6 were ruptured) and the rest 2 of salpingitis. Amongst the ovarian lesions,41 cases were of ovarian neoplasms which were categorized as benign and malignant. Serous cystadenoma was the most common benign tumor and serous cystadenocarcinoma was the most malignant tumor.

The shortcoming of the study is small sample size.

CONCLUSION

Authors found that a common diagnostic challenge for the treating physician is an adnexal mass. Patients in the reproductive age group frequently have adnexal masses as a result of ectopic pregnancies. Another important factor contributing to adnexal mass is ovarian neoplasm.

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