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A 2 Years study of Adnexal mass, management and its outcome at tertiary care centre

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Abstract

Introduction: Adnexal masses (ie, masses of the ovary, fallopian tube, or surrounding tissues) commonly are encountered by obstetrician-gynecologists and often present diagnostic and management dilemmas .The term adnexa is derived from the pleural form of the Latin word "adnexus" which means "Appendage".[1] Most adnexal masses are detected incidentally on physical examination or at the time of pelvic imaging. Less commonly, a mass may present with symptoms of acute or intermittent pain (Management decisions often are influenced by the age and family history of the patient. Although most adnexalmasses are benign, the main goal of the diagnostic evaluation is to exclude malignancy. The purpose of this study is to provide guidelines for the evaluation and management of adnexal masses in adolescents, pregnant women, and nonpregnant women and to outline criteria for the identification of adnexal masses that are likely to be malignant and may warrant referral to or consultation with a gynecologic oncologist.

Aims And Objectives: Aim of the study is to study the management and outcome of adnexal masses at tertiary care centre.

Methodology: It is a prospective study which was conducted at Navodaya Medical College and Research Centre , Raichur. Study was conducted from 2017 to 2019. Total of 54 women based on exclusion and inclusion criteria, followed of detailed history, general examination, pelvic examination and investigations were done.

Results: Most of the women belong to 31 years (35%), most common site being right ovary 43%, with most common complaint of pain being in 70%, with more common histopathology showing benign adnexal masses.

Conclusion: Although bimanual palpation of the adnexal masses may not allow a very specific diagnosis, clinically useful information can usually be obtained and hence it is particularly useful as a first step in assessment of adnexal masses and as an adjunct to morphological assessment of ovarian lesions. Ultrasonography is an important noninvasive investigation and is helpful in diagnosing most of these

cases, but the histopathological examination of specimen obtained from laparotomy of adnexal mass is the gold standard for confirming the diagnosis

Keywords: Adnexal mass, benign, malignanacy, ultrasonography

Introduction

Adnexal masses are frequently found in both symptomatic and asymptomatic women. In premenopausal women, physiologic follicular cysts and corpus luteum cysts are the most common adnexal masses, but the possibility of ectopic pregnancy must always be considered.[2] Other masses in this age group include endometriomas, polycystic ovaries, tubo-ovarian abscesses and benign neoplasms. Malignant neoplasms are uncommon in younger women but become more frequent with increasing age. In postmenopausal women with adnexal masses, both primary and secondary neoplasms must be considered, along with leiomyomas, ovarian fibromas and other lesions such as diverticular abscesses. Information from the history, physical examination, ultrasound evaluation and selected laboratory tests will enable the physician to find the most likely cause of an adnexal mass. Measurement of serum CA-125 is a useful test for ovarian malignancy in postmenopausal women with pelvic masses. Asymptomatic premenopausal patients with simple ovarian cysts less than 10 cm in diameter can be observed or placed on suppressive therapy with oral contraceptives. Postmenopausal women with simple cysts less than 3 cm in diameter may also be followed, provided the serum CA-125 level is not elevated and the patient has no signs or symptoms suggestive of malignancy.

Aim and Objective

Aim of the study is to study the management and outcome of adnexal masses at tertiary care centre.

Methodology

It is a prospective, observational study which was conducted at Navodaya Medical College and Research Centre , Raichur for 2 years from 2017 to 2019. Total of 54 women based on exclusion and inclusion criteria, followed of detailed history, general examination, pelvic examination, ultrasonography and other blood investigations were done. The data were analysed by using SPSS 16.0 and results were expressed in percentages.

Inclusion Criteria

1) All adnexal masses includes functional Cyst & inflammatory masses in reproductive age group detected clinically and ultrasound.
2) All cystic lesions in postmenopausal women.
3) Solid ovarian mass irrespective of size and age.

Exclusion Criteria

1) Women on ovulation induction drugs.
2) Non gynaecology origin of adnexal masses.
3) Poly Cystic Ovarian Syndrome.

Results

Table 1: Age wise incidence of adnexal masses

Age	No of patients	Percentage
16 - 25 years	13	24%
26 - 35 years	19	35%
36 -45 years	15	28%
46 - 55 years	5	9%
56 - 65 years	2	4%
Total	54	100%

The patient ages ranged from 16-65 years with mean age of 31 years. In the present study majority cases were below 45 years, only 5 cases were above 45 years.

Table 2: USG site of adnexal masses

USG site	No of patients	Percentage
Right ovary	23	43%
Left ovary	13	24%
Bilateral ovaries	8	15%
Rt fallopian tube	8	15%
Lt fallopian tube	2	4%
Total	54	100%

Most common site of origin of adnexal mass is right ovary, 43%, left ovary 24%.

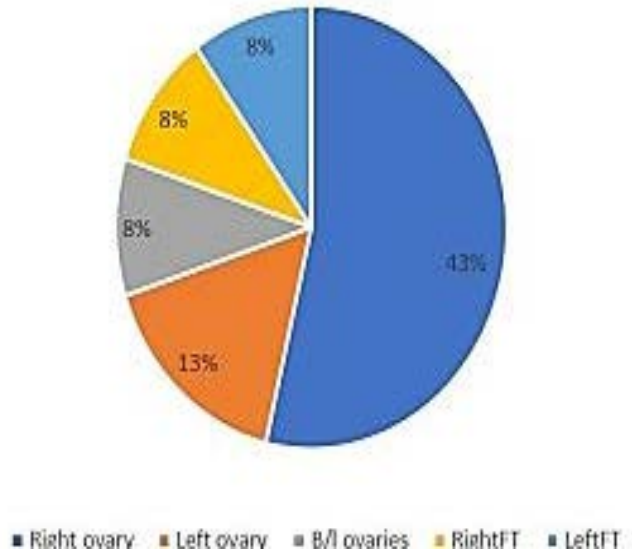

Figure 1: USG site of adnexal masses

Table 3: Adnexal mass presenting with pain

Pain	No of patients	Percentage
Present	38	70%
Absent	16	30%
Total	54	100%

Number of patients presenting with pain 38 (70%).

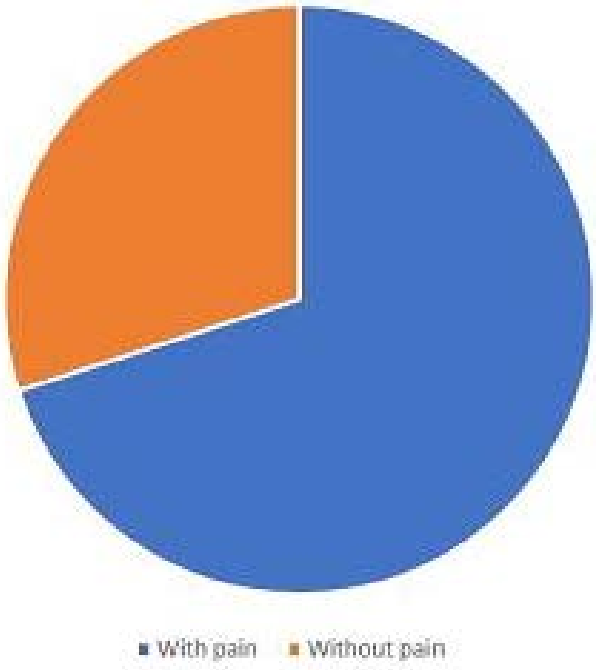

Figure 2: Adnexal mass presenting with pain

Table 4: Histopathological diagnosis of adnexal masses

Histopathological diagnosis	No of patients	Percentage
mucinous cyst Adenoma	6	11.1%
Serous cyst adenoma	13	24.07%
Ovarian torsion	8	14.81%
Functional cyst	13	24.07%
Ectopic pregnancy	7	12.96%
Dermoid	1	1.85%
Endometrioid cyst	2	3.70%
Paraovarian cyst	1	1.85%
Pyosalphinx	1	1.85%
Fimbrial cyst	1	1.85%
Exophytic mural cyst	1	1.85%
Total	54	100%

The most common adnexal masses on histopathological diagnosis are benign, serous cyst adenoma & functional cyst are 24.07% each. Adnexal masses in reproductive age may be confused with ectopic

pregnancy as both presents with pain abdomen as the chief complaint.

Table 5: Adnexal masses with mass per abdomen

Mass/per abdomen	No of patients	Percentage
Present	20	37.03%
Absent	34	62.96%
Total	54	100%

Number of patients presenting with mass 20 (37.03%). The most common presenting complaint is pain abdomen rathar than mass per abdomen.

Table 6: Different surgeries performed in present study

Name of surgery	No of patients	Percentage
TAH+BSO	21	39%
U/L Salphingo oophorectomy	12	22%
B/L Salphingo oophorectomy	2	4%
Ovarian cystectomy	11	20%
Salphingectomy	5	9%
Ovariotomy	1	2%
Conservative	2	4%
Total	54	100%

The most common surgery performed in our study was TAH+BSO (39%) followed by unilateral salphingo oophorectomy (22%), ovarian cystectomy (20%), one girl had exophytic mural cyst, took OCPs for 1 month & did not come for furthur follow up.

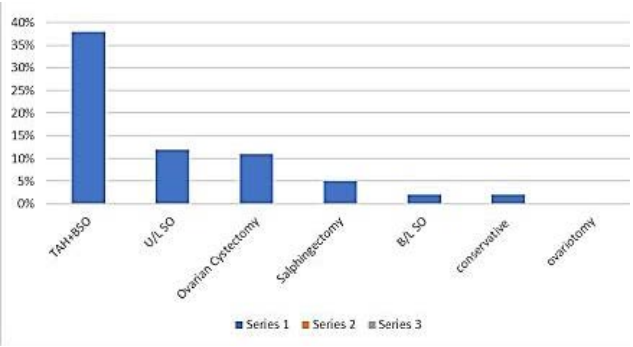

Figure 3: Different surgeries performed in present study

Discussion

Adnexal mass evaluation is an integral part of gynaecologic examination.. Early adnexal disease are rarely symptomatic, pelvic examination serves as primary screening for asymptomatic adnexal mass.

It is even more important in postmenopausal women due to higher incidence of ovarian carcinoma, often with no early signs and symptoms.[3]

In a study by Borgfeldt et al , a random study on 335 asymptomatic women between 25-40 years, prevalence of adnexal lesion on ultrasonographic examination was 7.8% and in comparison prevalence of ovarian cysts was 6.6%. In our study 68% of adnexal lesions found on ultrasonography were ovarian cysts.[4]

We find sonographic scoring of ovarian lesion to have high sensitivity and specificity 89-100% and 73-83% respectively, moderate positive predictive value (37-46%) and excellent negative predictive value(96-100%).[5]

In our study a total of 54 women were diagnosed to have adnexal mass. The patient's age was from 16-65 years with mean age of 31 years. In our study majority of cases were below 45 years which indicates higher incidence in premenopausal women.

A study by Khan S has shown an prevalence of ovarian masses to be 7.8% in premenopausal women compared to 2.5% prevalence in postmenopausal women, which favours our study.[6] 38 patients reported with pain being major symptom in premenopausal patients than postmenopausal patients.

Our study shows higher incidence of masses in right ovary compared to left ovary. A prospective cohort study done by Louis A on 140 women showed higher incidence in the left ovary than right ovary which is contrary to my study.

As pelvic examination provides important information[7], the need for rotuine gynaecologic care is seriously criticized.

According to Russell, pelvic examination and its possible limitations, such as examiner experience, patient anxiety, patient obesity, patient willingness or symptomatology have never been assessed systemically.[8]

In a study by Andolf et al, only 23% of persistent adnexal masses found by USG were detected by pelvic examination and none of the borderline or malignant ovarian lesions were found by pelvic examination.[10]

Roman et al compared pelvic examination, tumour markers levels & ultrasonography for predicting pelvic carcinoma in women with adnexal masses. Sensitivity and positive predictive value of pelvic examination were only 51% and 43.8% respectively.[9]

The important aspect for the analysis of ovarian & adnexal masses is an attempt to identify non neoplastic entities such as functional cysts, tubal & inflammatory diseases.

Majority of ectopic pregnancies occur in fallopian tube (9%) but other sites include cervical, interstitial (also referred to as cornual, a pregnancy located in proximal segmentof fallopian i.e.,embedded within muscular wall of uterus, hysterotomy, caesarean scar, intramural, ovarian or abdominal.[11]

These non neoplastic entities are usually small in size and may display classic USG appearances which are pathognomonic. However , each of these entities can have appearances that mimic neoplastic processes as well.

Pre-operative classification of an ovarian mass as benign or malignant is imperative for appropriate triage, referral and management.

Although it may not determine whether or not to perform surgery, malignancy risk prediction may assist in decisions regarding surgical approach (laprotomy or laparoscopy).

It is recommended that a risk of malignancy index should be used to select the women for laparoscopic surgery, and it must be done by a suitably qualified surgeon. If any unsuspected ovarian malignancy is detected at the time of diagnostic lap, staging & debulking by laprotomy should be undertaken without delay & is ideally performed by a gynaecologic oncologist.

Conclusion

We can conclude from our discussion that ultrasonography is definitely an important non-invasive investigation and is helpful in diagnosing most cases of functional ovarian cysts, benign ovarian neoplasm and ovarian malignancy; but the histopathological examination of specimen obtained from laparotomy/laparoscopy of adnexal mass is the goldstandard for confirming the diagnosis. Although bimanual palpation of the adnexal masses may not allow a very specific diagnosis, clinically useful information can usually be obtained and hence it is particularly useful as a first step in assessment of adnexal masses and as an adjunct to morphological assessment of ovarian lesions. However no single diagnostic aid can be used to determine the pathological adnexal masses. Hence a multifaceted diagnostic approach should be used for a definite diagnosis and management of adnexal mass.

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