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Original Article**DOI:****STUDY OF ADNEXAL MASS IN REPRODUCTIVE AGE GROUP WOMEN AND THEIR OUTCOME****Authors**

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ABSTRACT

BACKGROUND: Adnexal masses is a significant condition commonly seen in women's reproductive age. Most common masses arise from ovaries due to their complex embryologic & histologic origin. For diagnosis, ultrasonography is the gold standard. Laproscopy is the gold standard surgical intervention.

METHODS: This study was a prospective study that was conducted at a tertiary care hospital in the obstetrics and gynecology department from October 2021 to December 2021.

RESULTS: In this study, No. 31% of the patients were between the ages of 26 and 35. Of the patients, 12.90% came from the upper socioeconomic class, 72.58% from the middle, and 14.51% from the lower socioeconomic class. The most common complaint was abdominal pain (41.93%) followed by menstrual irregularities (25.80%). 46.77% of patients were managed medically. In 32.25% of patients, laparoscopy was performed and in 20.96% of patients, laparotomy was performed.

CONCLUSION: Adnexal masses are a very common gynecological problem, Present with abdominal pain / other symptoms /an incidental finding on ultrasonography done for other purposes. So, the basic approach should be early diagnosis and appropriate medical or surgical treatment, to minimize morbidity and avoid mortality.

KEYWORDS: adnexal mass, reproductive age group women, laparoscopy

INTRODUCTION:

One significant condition that frequently coexists with gynecological presentations is adnexal mass. Sonographic evaluation or examination is used. Women of any age can develop an adnexal pathology, but it is more common in younger women. The type of mass and presentation affect how an adnexal mass is managed. Ovaries are a source of a wide range of masses because of their intricate embryologic structure as well as histogenetic growth.

Benign ovarian pathology is a serious condition that affects sexually active women. History and bimanual examination should be taken into consideration for diagnosis, but The gold standard is ultrasonography. The clinical assessment of adnexal masses has been improved with the use of ultrasound or laparoscopy imaging. The CA 125, serum beta-HCG, and other biological markers can help differentiate between different presentations.

Some emergencies, like a ruptured ectopic or bleeding corpus luteum cyst, may require confirmation or the end of treatment with endoscopy.

Laparoscopic surgery is now considered the gold standard for surgical procedures, but laparotomy can also be used to treat some lesions.

The objective of the study was to determine the need for prompt surgical intervention and investigate whether laparoscopic or open surgery is the best surgical strategy.

MATERIALS AND METHODS:

This study was a prospective study that was conducted at a tertiary care hospital in the obstetrics and gynecology department from October 2021 to December 2021. This study consists of 62 patients, who presented with different symptoms in Sheth L.G.Hospital OPD having adnexal masses diagnosed clinically and/or with help of ultrasonography.

INCLUSION CRITERIA: - 15 to 45 years of age group women, Female patients with abdominal pain, History of heavy menstrual periods, Patients having weight loss history, Intrauterine contraceptive devices use, Previous episode of PID, Ectopic pregnancy, Smoking history

EXCLUSION CRITERIA: - above 45 years of age group women, All ovarian and tubal malignancies

RESULTS:

Table-1: Age wise distribution of patients with adnexal masses (n=62)

Age Group	No. (%)
15-25	21 (33.87)
26-35	31 (50)
36-45	10 (16.12)

Total 21 patients were from 15-25 years of age group, out of them 8(38.09%) patients were unmarried and 13(61.90%) patients were married.

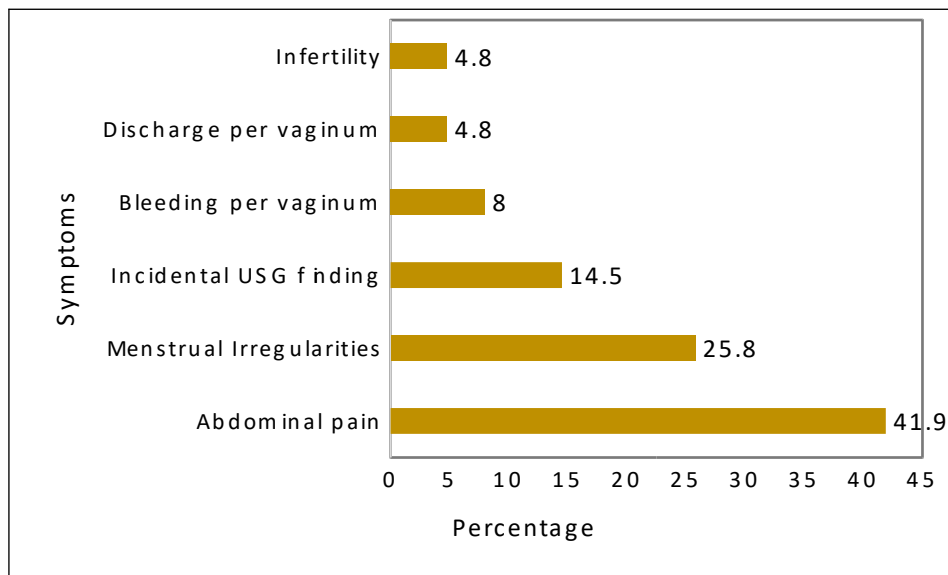
Table-2: Distribution of patients according to parity (n=62)

Parity	No. (%)
Nulliparous	8 (12.9)
Para 1	12 (19.3)
Para 2	25 (40.3)
Para 3	6 (9.7)

Para 4 and above	2 (3.2)
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In the present study, among all married patients, 8(12.90%) patients were nullipara, 12(19.35%) patients were primi para, 25(40.32%) patients were second para, 6(9.67%) patients were third para and 2(3.22%) patients were fourth para or above.

Figure 1: Distribution according to the chief complaints at time of presentation.(n=62)

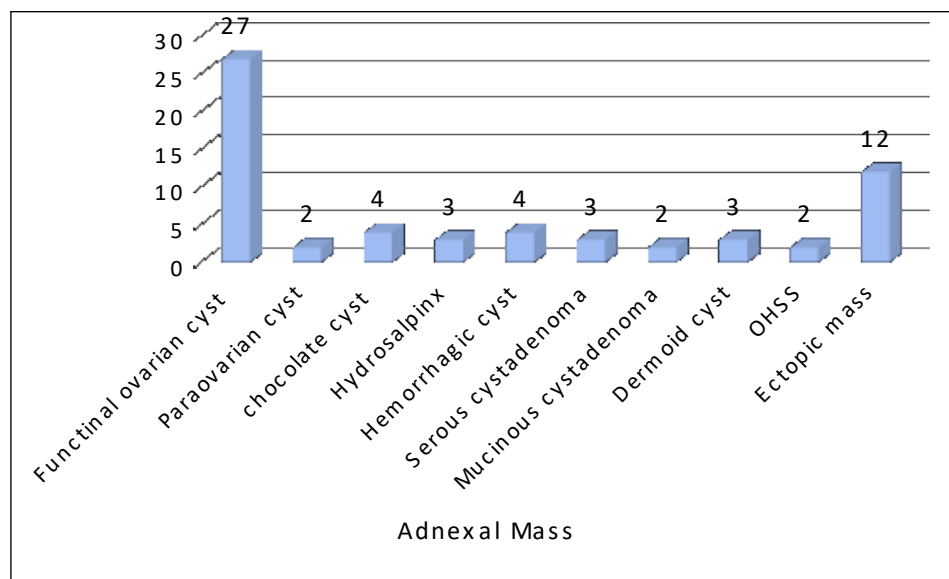


In the present study, most of the patients (No.26,41.93%) presented with abdominal pain. Second most common presentation was menstrual irregularities, in about 16 patients (25.80%).

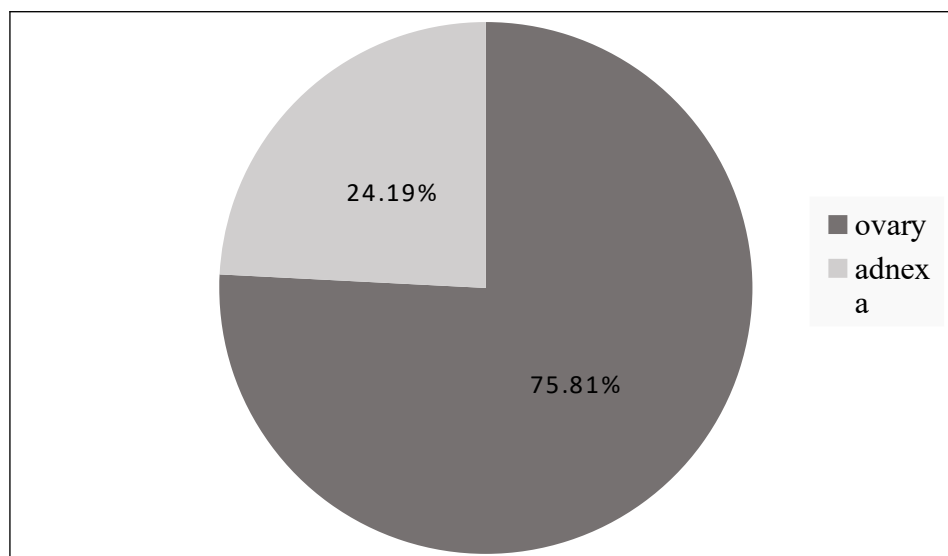
Table-3: Distribution according to significance of tumor markers.

Tumor Marker	No.	Significant/ Raised	Normal
B-HCG	12	7 (58.33%)	4 (33.33%)
CA-125	14	1 (7.14%)	13 (92.85%)
CEA	3	1 (33.33%)	2 (66.66%)
LDH	4	-	4 (100%)
AFP	2	-	

In the present study, CA 125 level was raised in 1 (7.14%) patient. In the present study, LDH and AFP level were found normal.

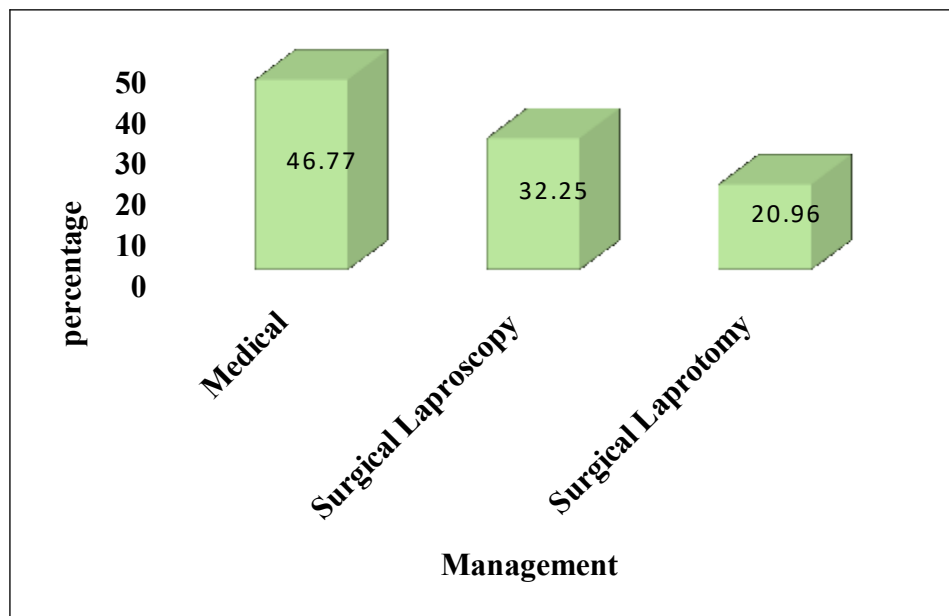
Figure 2: No. distribution of adnexal mass on the basis of ultrasonography (n=62)

In the present study, we found maximum (No.27,43.54%) patients of Functional ovarian cyst followed by 12(19.35%) patients of Ectopic mass.

Figure 3: Distribution of Patients according to site of lesion (n=62)

In the present study, 47(75.80%) patients were having ovarian origin mass and 15(24.19%) were having adnexal origin mass.

In the present study, 15(24.19%) patients were having mass of adnexal origin. Out of them 12(80%) patients were diagnosed to have Ectopic mass and 3(20%) were diagnosed to have Hydrosalpinx.

Figure 4: Distribution of patients according to management (n=62)

In the present study, 41.93% patients were treated medically. Patients having Functional ovarian cysts were treated with OC Pills and followed up back with ultrasound, to rule out any recurrence and effect of treatment which was given. Laparoscopy was performed in 20(32.25%) patients and laparotomy was performed in 13(20.96%) patients.

Table-4: Histopathological diagnosis of adnexal masses (n=32)

Histopathological diagnosis	No. (%)
Ovarian cyst	8 (25)
Chocolate cyst	4 (12.5)
Hemorrhagic cyst	1 (3.12)
Serous cystadenoma	3 (9.37)
Mucinous cystadenoma	2 (6.25)
Dermoid cyst	3 (9.37)
Ectopic mass	11 (34.37)

In the present study, when patients were managed by laparoscopy or laparotomy, masses removed were sent for histopathological examination. Out of them 25% were diagnosed as ovarian cyst. 34.37% were diagnosed as ectopic mass, 12.5% as chocolate cyst, 3.12% as hemorrhagic cyst, 9.37% as serous cystadenoma, 6.25% as mucinous cystadenoma and 9.37% as dermoid cyst.

DISCUSSION:

Adnexal masses is a significant condition commonly seen in women's reproductive age. In the present study, 50% patients were in 26-35 years age group, 33.87% patients were in 15-25 years age group and 16.12% patients were in 36-45 year age group. According to other study done by Biswajyoti et al (1), 50% patients in 41-50 years age group. Study done by Pilliai et al (2), maximum patients (48.24%) were in age group of 41-50 years, followed by 22.80%

patients in 31-40 years of age group. As our hospital in urban area, about 50 (80.64%) cases were from urban area.

In the present study, among all married patients, 8(12.90%) patients were nullipara, 12(19.35%) patients were primi para, 25(40.32%) patients were second para, 6(9.67%) patients were third para and 2(3.22%) patients were fourth para or above. According to another study done by Shraddha et al (3), 23.90% were primi para.

According to another study done by Biswajyoti et al (1), maximum patients presented with pain in abdomen (42%) which was similar to present study. According to another study done by Shraddha et al (3), patients presented with menstrual irregularities were about 30.8%.

CA 125 is used for screening tool, but chances of high false positivity are high. CA 125 level is also raised in other non pathological conditions like pancreatitis, congestive cardiac failure, hepatitis and pregnancy. In the present study, B HCG evaluation was done in 12 patients to rule out ectopic mass. In 7(58.33%) patients level was found to be raised and in 4(33.33%) patients level was found normal. According to ACOG guidelines, serial S.B-HCG level are measured to differentiate normal from abnormal pregnancies. In the present study, CEA level was raised in 1(33.33%) patient and in 13(92.85%) patients level were found normal.

In the present study, we found maximum (No.27,43.54%) patients of Functional ovarian cyst followed by 12(19.35%) patients of Ectopic mass. According to study done by Baru et al (4), 4.60% patients were having serous cystadenoma. According to study done by Pillai et al (2), 9.34% were diagnosed as serous cystadenoma and 1.75% as hydrosalpinx.

CONCLUSION:

Adnexal masses are very common gynecological problem. These masses mostly present in OPD/emergency as abdominal pain or with other symptoms or as incidental finding on ultrasonography done for other purpose. Out of many types of adnexal masses, functional ovarian cysts are most common, followed by ectopic pregnancy masses. Ultrasonography is very helpful to diagnose/rule out adnexal masses. Ultrasound done early in emergency is extremely useful in detection of ectopic pregnancy and ovarian torsion. It can decrease morbidity and prevent mortality.

The main aim of management should be to minimize complications. For adnexal masses requiring surgical management, laparoscopy is the better approach, as it is associated with less post operative complications, less post operative hospital stay, shorter recovery time and more cosmetic. But, it requires better skills and good infrastructure with all facilities. Management of adnexal masses depends on patient's clinical status, type and site of lesion, symptoms and parity. So, the basic approach should be early diagnosis and appropriate medical or surgical treatment, to minimize morbidity and avoid mortality. Life threatening conditions should never be missed and should be managed aggressively.

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