Original Article

Presence of Adnexal Masses in Pregnancy- A Clinical Study

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***ABSTRACT*:**
Background: Incidence of adnexal masses in pregnancy ranges from 2% to 10%. The present study was conducted to assess the cases of adnexal masses in pregnancy. **Materials & Methods:** The present study was conducted on 46 cases of adnexal masses in pregnancy. General information such as name, age, gender etc. was recorded. The presence of adnexal masses, symptoms etc. was recorded. **Results:** Age group 18- 28 years had 26 cases, 28-38 years had 16 cases and 38-48 years had 4 cases. The difference was significant (P< 0.05). Common adnexal masses werehemorrhagic cysts (12), hyperstimulated ovaries (10), teratomas (7), cystadenomas (9) and endometriomas (8). The difference was significant (P< 0.05). Common symptoms were loss of appetite (34), pain (40), enlargement of waist diameter (26) and vaginal bleeding (44). The difference was non- significant (P> 0.05). **Conclusion:** Adnexal masses are not uncommon in pregnancy. The need is to diagnose the case effectively with ultrasonography which can help in preventing the termination of pregnancy and even death of the mother.
Key words: Adnexal masses, Pregnancy, Ultrasonography

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INTRODUCTION

Adnexa refer to the anatomical area adjacent to the uterus, and contain the fallopian tube, ovary, and associated vessels, ligaments, and connective tissue. Incidence of adnexal masses in pregnancy ranges from 2% to 10%. These cysts may be asymptomatic and may be coincidently found or until their size increases the abdominal girth. Pain due to rupture, hemorrhage into the cyst, infection, venous congestion, or torsion may be of sudden onset or of a more chronic nature. Most of these adnexal masses are diagnosed incidentally at the time of dating or first trimester screening ultrasound (USS). An adnexal mass in pregnancy can be complicated by torsion, rupture, or bleeding/infection, or labor obstruction.[1]

Prior to widespread use of early antenatal ultrasound, adnexal masses in pregnancy were detected with less frequency on physical examination. However, malignancy is not the only risk associated with an adnexal mass in pregnancy. Masses that persist into the second trimester are at risk for torsion, rupture, or labor obstruction.[2]

Common adnexal lesions associated with pregnancy include simple cysts, hemorrhagic cysts, leiomyomas, and hyperstimulated ovaries in patients who have undergone fertility treatments. Uncommon adnexal lesions specific to pregnancy include hyperreactio luteinalis, theca lutein cysts with moles, and luteomas. Adnexal masses associated with pain include ovarian torsion and heterotopic pregnancy. Some adnexal lesions are detected incidentally, such as teratomas, endometriomas, hydrosalpinx, cystadenomas, and cystadenocarcinomas.[3] The present study was conducted to assess the cases of adnexal masses in pregnancy.

MATERIALS & METHODS

The present study was conducted in the department of Gynaecology & Obstectrics. It included 46 cases of adnexal masses in pregnancy. All were informed regarding the study and written consent was obtained. Ethical clearance was taken from institutional ethical committee.

General information such as name, age, gender etc. was recorded. The presence of adnexal masses, symptoms etc. was recorded. Results thus obtained were subjected to statistical analysis using chi-

square test. P value less than 0.05 was considered significant.

RESULTS

Table I Age wise distribution

Age group (years)	Number	P value
18-28	26	0.01
28-38	16	
38-48	4	

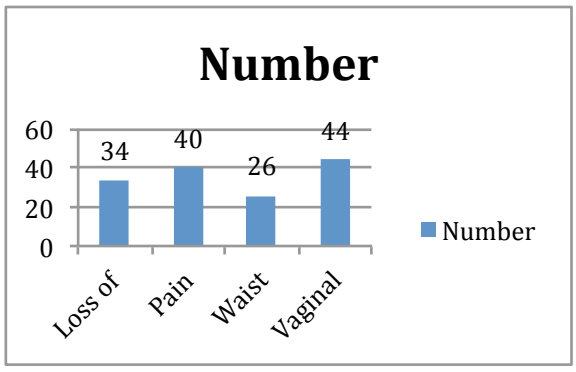
Table I shows that age group 18- 28 years had 26 cases, 28-38 years had 16 cases and 38-48 years had 4 cases. The difference was significant (P< 0.05).

Table II Different adnexal masses

Adnexal masses	Number	P value
Hemorrhagic cysts	12	0.01
Hyperstimulated ovaries	10	
Teratomas	7	
Cystadenomas	9	
Endometriomas	8	

Table II shows that common adnexal masses werehemorrhagic cysts (12), hyperstimulated ovaries (10), teratomas (7), cystadenomas (9) and endometriomas (8). The difference was significant (P< 0.05).

Graph I Symptoms in patients



Graph I shows that common symptoms were loss of appetite (34), pain (40), enlargement of waist diameter (26) and vaginal bleeding (44). The difference was non- significant (P> 0.05).

DISCUSSION

Most adnexal masses in pregnancy are diagnosed incidentally during a routine screening ultrasound in the first trimester. If an adnexal mass is palpated on examination, ultrasound is the preferred method of confirmation of diagnosis because of its ability to differentiate morphology. This will ultimately allow stratification of risk without compromising maternal and fetal safety. The ultimate goal of an ultrasound evaluation is to aid the obstetrician in determining those adnexal masses in which conservative management with observation is possible versus those requiring surgery.[4]

In this study, age group 18- 28 years had 26 cases, 28-38 years had 16 cases and 38-48 years had 4 cases. We found that common adnexal masses were hemorrhagic cysts (12), hyperstimulated ovaries (10), teratomas (7), cystadenomas (9) and endometriomas (8). This is in agreement with Leitzman et al.[5]

Hemorrhagic corpus luteum cysts can have a variety of sonographic appearances due to the changing appearance of the blood clot. Most resolve by the second trimester. Acute hemorrhagic cysts can appear as echogenic masses with internal echoes more hyperechoic than surrounding normal ovarian parenchyma. Hyperstimulated ovaries are typically diagnosed in patients who have undergone ovulation induction. The ovaries are enlarged with multiple cysts. More than 90% of patients who have hyperstimulation will have spontaneous resolution of these benign cysts. Teratomas show a complex echo pattern due to the presence of fat, solid components and calcified material. Most ovarian teratomas have a typical sonographic appearance and can be correctly diagnosed by sonography. Endometriomas are uncommon to find an unsuspected endometrioma at routine obstetric imaging in pregnancy as they are often associated with infertility.[6] In a study by Akdeniz et al[7], 81 patients with adnexal masses treated, there were significantly more benign (n = 51) than malignant (n = 30) tumors in all the patients. The patients with malignant HP findings were significantly older than those with benign adnexal masses. Significantly more patients with malignant HP findings were in menopause. BMI values were highly significantly higher in the patients with malignant adnexal tumors. There was a statistically significant positive correlation between HP categories (benign, malignant) and RMI categories (low, intermediate and high risk) of all the patients (high risk, more malignant HP).

Most ovarian masses detected in pregnancy resolve spontaneously, and aggressive surgical management is not required.[8] Characteristics favorable for spontaneous resolution include masses that are simple in nature by ultrasound, less than 5-6 cm in diameter, and diagnosed before 16

weeks. Larger masses or those with more complex morphology are less likely to resolve spontaneously and may represent a neoplastic process. Persistent adnexal masses are also more likely to result in complications in pregnancy by torsion (1-22%), rupture (0-9%), or obstruction of labor.[9]

CONCLUSION

Adnexal masses are not uncommon in pregnancy. The need is to diagnose the case effectively with ultrasonography which can help in preventing the termination of pregnancy and even death of the mother.

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