ORIGINAL RESEARCH PAPER

Obstetrics & Gynaecology

EVALUATION OF CLINICOPATHOLOGICAL OUTCOME OF ADNEXAL MASS IN ADOLESCENT GIRLS AT A TERTIARY CARE CENTRE A PROSPECTIVE OBSERVATIONAL STUDY

KEY WORDS: Adnexal Mass, Adolescent Group, Medical Management, Laparoscopy

Dr Anbarasi P Assistant Professor

Dr Sri Preethika Assistant Professor

Dr Soundarya Devi V Assistant Surgeon

ABSTRACT

To evaluate the clinical and pathological outcome of adnexal mass in adolescent age group with medical and surgical management. This was a prospective observational study done in adolescent girls of age group between 12 years to 18 years who came to gynecology outpatients department with complaints of abdominal pain, dysmenorrhea and irregular menstrual cycles. Patients were selected according to symptoms such as abdominal pain, amenorrhea, dysmenorrhea, menorrhagia, acute abdomen and also even those adnexal masses with no symptoms. 6 months follow up was done for all cases who took medical management. In majority of cases only medical management was done (52%). Majority took OC pills (42%). 6 months follow up done for 60% of total cases and for all cases who took medical management. 80% of case who took medical management showed regression. Laparoscopic cystectomy was the common surgery performed (26%) in case of failed medical management.

BACKGROUND/RATIONALE:

Adnexal mass means any mass arising from the adnexa which comprises the ovary, fallopian tube, structures in broad ligaments, and other connective tissues in parametrium. Adnexal mass can be an incidental diagnosis, or it may be associated with other symptoms like pain in the abdomen. It is very commonly encountered in our clinical practice. Adnexal masses are not prevalent among adolescents as they are in women of the age-group of 20–40 years. Its incidence is 2.6% in 1 lakh of the adolescent population1. The rate of malignancy in ovarian neoplasms in adolescents and children ranges from 3.7 to 23.5%. Ultrasound is the most useful investigation.

METHODS:

Study design

It is a prospective Observational study with sample size of 50.

Setting

Conducted during the study period of May 2021 to May 2022 at Chengalpattu Medical College Hospital.

Participants

Adolescents in the age group between 12 years to 18 years came to the gynecology outpatient's department with the complaints of abdominal pain, dysmenorrhea, menstrual irregularities.

Variables

Inclusion Criteria:

Adolescent age girls of 12 years to18 years, Adnexal mass with or without symptoms, UPT positive /negative, Family history of ovarian tumours , Endocrine changes.

Exclusion Criteria:

Age <12 years and >18years, Uterine Tumours

Statistical Methods:

Mean and SD was computed for continuous variable and percentage was calculated for categorical variables. Chi square analysis was done to find association of various factors with diagnosis and regression. SPSS version 20 was used and p value <0.05 was considered significant.

RESULTS:

Minimum age was 12 years and maximum age was 18 years, age group 12 years to 14 years and 15 years to 16 years has majority of study population (40% each). Most common complaint is abdominal pain (54%). UPT was positive only in 4% of cases. Both family history and endocrine changes were present only in 6% of cases. Irregular menstrual cycles were seen in 58%of cases. Most common USG finding was simple ovarian cyst (30%). Most common size based on USG was 4*4 (28%), followed by 5*5 (26%). Unilocular was more common (34%). Thin septation was more common (18%). 98% of cases were unilateral. CA 125 was raised in 14% of cases and CRP was raised in 20% of cases.

Most common diagnosis was simple ovarian cyst (30%)2 followed by haemorrhagic cyst (24%). In majority of cases only medical management was done (52%). Majority took OC pills (42%). 6 months follow up done for 60% of total cases and for all cases who took medical management. 80% of case who took medical management showed regression. Laparoscopic cystectomy was the common surgery performed (26%)3. On applying Chi square test there was significant association seen for menstrual irregularity and CA 125 for various diagnosis. More irregularity was seen in haemorrhagic and ovarian simple cyst. CA 125 was increased in most cases of ovarian torsion and dermoid. There was no significant association seen for age group, family history and endocrine changes among various diagnosis. On applying Chi square test there was significant association seen for age group, CA 125 and size. Majority of no regression cases were seen in age group 15 years to 16 years, CA 125 was normal in all cases who had regression.

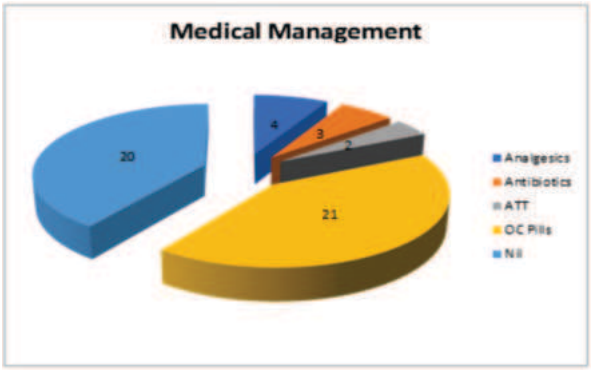
HPE

HPE	Number	Percentage
Ectopic pregnancy	1	2
Endometriotic cyst	3	6
Hemorrhagic cyst	4	10
Benign epithelial tumour	12	24
Teratoma	1	2
Ovarian torsion	2	4
Tubal ectopic	1	2
Not done	26	51

DISCUSSION

Adnexal masses are uncommon in children and adolescents, and they can represent a wide range of pathologies, from non-neoplastic to benign neoplasms and malignant tumors4. In this study, 89.2% of the adnexal masses were benign and non-neoplastic, and only 7.8% of adnexal masses were malignant5. Ultrasound is the primary diagnostic tool for early diagnosis and monitoring of adnexal masses. Ultrasound provides information about dimensions,

appearance of adnexal masses. It also helps to select the adequate therapeutic approach. Malignancy probability of ovarian masses smaller than 8 cm, with unilateral and unilocular pattern, thin and smooth wall, without any intra-abdominal fluid is less than 1%6. Use of tumor markers for discrimination of ovarian masses is also contradictory. The literature review indicated that tumor markers were higher in 4% to 20% of benign masses7. Increase of several tumor markers is detected in ovarian masses with malignant characteristics. Unnecessary aggressive surgical approach should be avoided on benign masses in consideration of malignancy in ovarian masses. Approximately 30% of adnexal masses are treated surgically. More than 50% of surgical procedures for ovarian masses are performed laparoscopically in adolescents; and cystectomy is preferred rather than oophorectomy in majority (71% to 84%) of the patients. Preservation of normal physiological development and fertility in the future, and leaving the ovarian tissue as much as possible are important for treatment of ovarian masses during childhood. In the present study, cystectomy and ovarian conservative surgery were performed on 24 patients; however surgical procedure was not needed for 26 patients. Oophorectomy was performed in two patients only. Besides malignancy, the most common cause for oophorectomy is torsion of the ovary. Our results were consistent with the literature. Safety of ovarian conservative procedures was proven for adolescents; and minimally invasive surgical procedures have become a gold standard treatment in the last decade8. Laparoscopy is a safe and efficient surgical method for differential diagnosis and treatment of ovarian pathologies9.



CONCLUSION:

In our study about the outcome of adnexal mass in adolescent age group the most common diagnosis found were ovarian cysts and the follow up is based on the size of the cyst, symptoms and the response for treatment. In the case of failed medical management simple cysts were proceeded for surgical management and sent for HPE which were benign epithelial tumors. TBO were treated with antibiotics or ATT. The most common complaint was abdominal pain, more acute in ovarian torsion followed by dysmenorrhea followed by menorrhagia. Benign cysts were more than malignant cysts and this was based on the locularity of the cysts. Unilocular cysts with thin septations were more common. Surgical and medical management both were used. Cysts which were more than 5cms in one dimension were managed surgically. Cysts which were 3-5cms were kept under observation and usually resolved with observation. Laparoscopic method is the most common surgical procedure used.

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