

Ovarian Tumors in Adolescent females, an Experience at Nishtar Hospital Multan

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ABSTRACT

Objective: To study various presentations, surgical management and histopathological types of ovarian tumors in young girls of 10 to 22 years of age.

Design: Case series descriptive study.

Setting: Departments of Obstetrics and Gynaecology and Oncology, Nishtar Hospital Multan.

Period: July 2010 to Aug 2012.

Patients and methods: Young girls upto 22 years of age presenting with abdominal mass, abdominal pain, menstrual irregularities; with a preoperative diagnosis of ovarian tumor were included. Detailed history, examination, USG findings, surgical management and histological types were studied.

Results: During study period, 21 girls with ovarian tumors; 10 -22 yrs of age were studied, mean age was 16years. Mass abdomen was presenting symptom in 66.7% patients followed by abdominal pain in 23.8%, secondary amenorrhea with hirsutism in 9.5%. Unilateral salpingo-oophorectomy was done in 90.5% pts and debulking surgery in 9.5% cases. 85.7% cases were benign and 14.3% were malignant.

Conclusion: Ovarian tumors represent 1.5% of all tumors in childhood and adolescents. Benign lesions are very common. Main interest is towards timely diagnosis and fertility conserving procedures in young girls.

Keywords: Ovarian tumor, adolescent, abdominal pain

INTRODUCTION

During the first two decades of life, genital tract tumors are less common and constitute 5-10% of all tumors in this age group¹.

However the incidence of ovarian tumors is increasing across the globe and it is the 5th most common cancer and 5th leading cause of cancer death in women². Ovarian tumors are slow in onset and usually diagnosed at late stage. Common clinical symptoms are abdominal mass, abdominal pain and menstrual irregularities³. Ovarian tumors in young girls may be diagnosed due to symptoms, on physical examination and through imaging studies⁴. When an ovarian tumor is diagnosed in an adolescent female, conservative surgery should be the first choice to preserve reproductive function^{5,6}.

MATERIAL AND METHODS

This descriptive study was conducted in the Departments of Obstetrics and Gynecology, and presenting with abdominal mass, abdominal pain, Oncology Nishtar Hospital Multan from July 2011 to August 2012. Patients upto 22 years of age, menstrual irregularities; with a preoperative diagnosis

of ovarian tumor, were included in the study. Detailed history, clinical examination, baseline investigations, abdominopelvic USG and tumor markers were done in these patients. All patients underwent laparotomy and specimens were sent for histopathology. Patients were later followed up by gynecologist & oncologist.

RESULTS

During this period, 21 girls between 10 to 22 years of age with ovarian tumors were studied, the mean age being 16 years. 19 patients (90.5%) were unmarried and 2 patients (9.5%) were married. Married patients were nulliparous. Abdominal mass was the most common presenting complaint in 14 patients (66.7%), followed by abdominal pain in 5 patients (23.8%), and secondary amenorrhea with hirsutism in 2 patients (9.5%). Unilateral salpingo-oophorectomy was done in 19 patients (90.5%) and debulking surgery in 2 patients (9.5%). There were 18 benign ovarian tumors (85.7%) and three were malignant (14.3%), 2 (9.5%) mucinous cystadenocarcinoma and 1 (4.8%) malignant teratoma. Among the benign epithelial tumors, 2 (9.5%) were mucinous cystadenomas, 3 (14.3%) serous cystadenomas were diagnosed. Out of germ cell tumors, Dermoid cyst was the dominant type with 5 cases (23.8%), followed by 4 dysgerminomas (19%), 2 sertoli leydig cell tumors (9.5%) and 1 (4.8%) each of granulosa cell tumor and papillary borderline tumor.

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Table 1: Percentage of malignant ovarian tumors

Histological type	=n	%age
Mucinous ystadenocarcinoma	2	9.5
Malignant teratoma	1	4.8

Table-2: Percentage of benign ovarian tumors

Histological type	=n	%age
1. Epithelial tumour		
Mucinous cystadenomas	2	9.5
Serous cystadenomas	3	14.3
2. Germ cell tumors		
Dermoid cysts	5	23.8
Dysgeminoma	4	19
Sertoli leyding cell	2	9.5
Granulosa cell	1	4.8
Papillary borderline	1	4.8



DISCUSSION

Ovarian tumors represent about 1.5% of all tumors in childhood and adolescence.⁷ commonest tumors in first two decades are germ cell tumors and stromal tumors, while epithelial tumors are rare in childhood^{8,9}. Our study reports epithelial tumors to be the dominant type in adolescent girls which was also observed in local studies by S.Baloch¹⁰ and S.Tariq¹¹. Among benign tumors, teratoma was the most common type, as reported by Desilva¹².

The commonest presenting symptom was abdominal mass and abdominal pain. Acute pain can occur due to torsion and hemorrhage while dull pain is due to capsular distension¹³. We used ultrasound as the main imaging tool which is recommended to differentiate between benign and malignant disease. Routine use of CT, MRI & PET SCAN is not advised¹⁴.

Debulking surgery was done in two patients who had advanced disease while unilateral salpingo-oophorectomy was the main operation done in other patients. Ovarian tumors are slow to progress and are diagnosed at late stage. Radical surgical procedures have detrimental effect on future fertility of young patients. However, timely diagnosis and well

organized children and adolescent gynecological services can improve prognosis¹⁵.

CONCLUSION

This hospital based study shows that ovarian tumors are quite common in adolescent girls. Most patients present late with advanced disease. Histopathological analysis shows that epithelial ovarian tumor is the dominant type as opposed to germ cell tumor. This difference may be because of the type of patient referred to hospital which is the only referral centre in the south of the country for all provinces. However more work is needed to be done in our community especially timely diagnosis which will improve survival & preserve future fertility of these young pts.

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