

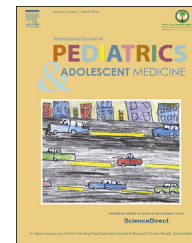
HOSTED BY



ELSEVIER

Available online at [www.sciencedirect.com](http://www.sciencedirect.com)

ScienceDirect

journal homepage: <http://www.elsevier.com/locate/ijpam>

Original Research Article

# Our experience with adnexal masses in the pediatric age group and review of literature

Q15 Kiran Khedkar <sup>a</sup>, Hemanshi Shah <sup>b,\*</sup>, Charu Tiwari <sup>b</sup>,  
 Deepa Makhija <sup>a</sup>, Mukta Waghmare <sup>b</sup>

<sup>a</sup> TNMC & BYL Nair Hospital, Mumbai Central, Mumbai, 400008, Maharashtra, India

Q2 <sup>b</sup> Dept of Paediatric Surgery, TNMC & BYL Nair Hospital, Mumbai Central, Mumbai, 400008, Maharashtra, India

Received 1 June 2016; received in revised form 23 August 2016; accepted 28 August 2016

## Q4 KEYWORDS

Adnexal masses;  
 Pediatric;  
 Benign;  
 Malignant;  
 Torsion

**Abstract** *Background and objectives:* Adnexal masses are rare in the pediatric age group. We present our experience with 20 patients with adnexal masses.

*Design and setting:* This retrospective observational analysis was performed on 20 children with adnexal masses who were treated at our institute between May 2011 and November 2015.

*Patients and methods:* Fifteen pediatric patients who were admitted between May 2011 and November 2015 were reviewed and retrospectively analyzed based on their age at the time of admission, their presenting complaints, clinical and radiological findings, tumor markers, management and follow-up.

*Results:* The patients' age at the time of admission ranged between 3 days and 12 years. Abdominal pain and lump were the most common presenting complaints.

Four patients (20%) had antenatally diagnosed cystic ovarian lesions. On postnatal scan, 2 patients had a simple cyst measuring less than 6 cm, which resolved on follow-up ultrasound at 3 months. One neonate had a simple cyst, larger than 6 cm on postnatal scan, which was managed by marsupialization. One antenatally diagnosed patient had a dermoid cyst that required oophorectomy.

Ten patients (50%) had dermoid cyst and underwent complete surgical excision of the mass. Based on histopathologic results, two of these patients had immature teratoma and required adjuvant chemotherapy (Bleomycin, Etoposide, and Cisplatin). The serum AFP levels of these patients were carefully monitored.

One patient with bilateral ovarian cysts was diagnosed with Van Wyk–Grumbach syndrome, which resolved significantly after a 3-month regimen of thyroxin supplementation.

Five patients presented with torsion and required emergency surgery—three had mature teratoma, one had an immature teratoma and one had large simple cysts.

\* Corresponding author. Dept of Paediatric Surgery, TNMC & BYL Nair Hospital, Mumbai Central, Mumbai, 400008, Maharashtra, India. Tel.: +91 02223027671.

E-mail address: [hemanshishah@gmail.com](mailto:hemanshishah@gmail.com) (H. Shah).

Peer review under responsibility of King Faisal Specialist Hospital & Research Centre (General Organization), Saudi Arabia.

<http://dx.doi.org/10.1016/j.ijpam.2016.08.010>

2352-6467/Copyright © 2016, King Faisal Specialist Hospital & Research Centre (General Organization), Saudi Arabia. Production and hosting by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

**Conclusion:** The majority of ovarian tumors are benign. Accurate staging, complete resection and chemotherapy for the treatment of malignant tumors have contributed to excellent survival rates in these patients.

Copyright © 2016, King Faisal Specialist Hospital & Research Centre (General Organization), Saudi Arabia. Production and hosting by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

## 1. Introduction

Ovarian masses are most commonly observed in adults; they rarely occur in children. The majority of the ovarian masses encountered in children or patients of premenarchal age are non-neoplastic lesions. The clinical signs and symptoms of ovarian masses are usually non-specific. Early management may be necessary to preserve fertility. Gynecological malignant conditions constitute approximately 3% of all types of cancer in children. Ovarian tumors in children account for only 1% of childhood malignancies. However, the true incidence of malignant ovarian tumors in the pediatric population is unknown [1].

## 2. Materials and methods

The records of 20 girls under the age of 12 years with adnexal masses who were treated at a tertiary referral center between May 2011 and November 2015 were reviewed and retrospectively analyzed based on their age at the time of admission, presenting complaints, clinical and radiological findings, tumor markers, management and follow-up.

Q5 All of the patients underwent pelvic ultrasound. CT scan was performed when necessary. Tumor markers—serum alpha fetoprotein (AFP), beta-human chorionic gonadotropin ( $\beta$ -HCG), and cancer antigen 125 (CA-125), were tested in ten patients. A thyroid function test was conducted in one patient because of associated precocious puberty. Q6 Complex lesions were surgically excised. A standard Pfannenstiel incision was made to remove the lesions. One patient was operated on laparoscopically. The patients with immature teratoma underwent complete surgical excision of tumor followed by chemotherapy; Bleomycin, Etoposide and Cisplatin (BEP regimen) were administered, and the patients' serum AFP levels were monitored. The diagnoses of all patients were histopathologically confirmed. Simple cysts measuring less than 6 cm were managed conservatively using Q7 ultrasound scans performed monthly for 3 months.

## 3. Results

The patients' age at the time of admission ranged between 3 days and 12 years. Four neonates were antenatally diagnosed, as confirmed by postnatal ultrasound scans. Abdominal lump (Fig. 1) (n = 12) and pain (n = 11) were the most common presenting complaints. Lesions were unilateral in 14 patients and bilateral in 1 patient. Tumor markers were sent in 10 patients, and the results were within normal limits. Q8

Four patients (20%) had antenatally diagnosed unilateral cystic ovarian lesions. On postnatal scan, 2 patients had a simple cyst measuring less than 6 cm, which was conservatively managed. These lesions resolved on follow-up ultrasound at 3 months. In one patient, a cyst measuring more than 6 cm was marsupialized. One antenatally diagnosed patient had a dermoid cyst and required oophorectomy. Q9

Ten patients (50%) underwent complete surgical excision of the adnexal mass (Figs. 2–5). Oophorectomy was performed in eight patients; based on histopathologic results, these patients had mature teratoma, and they required no additional treatment. Two patients were managed by salpingo-oophorectomy; histopathology revealed immature teratoma. The patients received adjuvant chemotherapy; Bleomycin, Etoposide and Cisplatin (BEP regimen) were administered and the patients' serum AFP levels were monitored. One patient had a large paraovarian cyst, which was laparoscopically excised (Figs. 6 and 7).

One patient (5%) presented with bilateral multicystic ovarian masses and precocious puberty and had severe hypothyroidism on hormonal evaluation. She was diagnosed with Van Wyk–Grumbach syndrome and was administered thyroxin supplementation. The masses resolved significantly after 3 months.

Five patients (25%) presented with acute abdomen and were diagnosed as torsion on USG and CT requiring



Fig. 1 Clinical photograph of an adnexal mass presenting as abdominal lump.

Download English Version:

<https://daneshyari.com/en/article/8809639>

Download Persian Version:

<https://daneshyari.com/article/8809639>

[Daneshyari.com](https://daneshyari.com)