

Rare Case: Ovarian Cysts in Child

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ABSTRACT

An ovarian cyst is a sac filled with liquid or semiliquid material that arises in an ovary. Those cysts were mostly found in women aged 20-50 years. The incidence is 10: 100.000 women. This report reports a case of a child patient aged two years who came to Arifin Achmad Hospital with a chief complaint there is a mass in the lower abdomen area. From the physical examination, the lump in the lower abdomen area was obtained. We performed, laparotomy exploration with cystectomy and found a left ovarian cyst size 12 x 12 x 15 cm.

Keywords: ovarian cysts, child, rare case

An ovarian cyst is a sac filled with liquid or semiliquid material that arises in an ovary. Regular physical examinations and ultrasonography technology may improved The number of diagnoses of ovarian cysts.¹ Ovarian cysts are rare cases in the pediatric cohort, with extreme variation in presentation, and complications arising from inadequate management may impair reproductive function in the future. The incidence of ovarian cysts in children varies with the age of the patient: 17% of lesions diagnosed within the first 4 years of life; 28% of lesions were diagnosed at 5 – 9 years of age, and 55% of lesions were diagnosed at 10 – 18 years of age.² In children and adolescents it usually appears during the neonatal period, with a peak incidence in the first year of life, or around the time of menarche.

Most cysts are benign and will heal spontaneously. They can present with pain, but usually, it is an incidental finding.³ Gynecological malignancies account for about 3% of all cancers in children. The incidence of ovarian tumors in the pediatric age group is only 1% of childhood malignancies. Ovarian cysts originate from mature follicles and were previously considered uncommon in the first year of life.⁴

The etiology of ovarian cysts varies based on the developmental stage of the patient and the specific hormonal stimulation present.⁵ Ovarian cysts present either as an asymptomatic incidental finding or with a variety of symptoms. The most common complaints are abdominal pain and distension, with 30% of patients presenting with pain. A retrospective review of 203 cases of ovarian cysts in girls under 18 years of age showed that 12% presented as emergency cases and 88% as routine referrals..³

Most ovarian cysts, however, appear during infancy and adolescence, which is a period of hormonally active development. Most function and recover without treatment. However, ovarian cysts may signal an underlying malignant process or may distract the clinician from unsafe conditions, such as appendicitis, ovarian torsion, or ectopic pregnancy. (In contrast, there may be an inverse relationship between breast cancer and ovarian cysts.) Once an ovarian cyst is large, painful, persistent, or has radiographic or examination findings, surgery may be required, from time to time resulting in removal of the ovary.¹

Case Report

A 2 years old female child was hospitalized in Arifin Achmad Hospital due to Intra Abdominal Tumor. She was born by cesarean delivery at Milano Hospital, Taluk Kuantan from G3P3A0H2 38-39 weeks gestations. Her birth bodyweight is 3600 gr,

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length 50 cm. She got full vaccination.

She comes to Pediatric Surgeon Polyclinic with a complaint of a lump on her lower abdomen. Lump knew since 4 months before admission. Lump bigger day by day. No history of abdominal pain. No bowel behavior changes. She was defecated normally and urinating normally.



Picture 1. Clinical picture when the patient comes to the hospital.



Picture 2. Cystic mass on laparotomy findings



Picture 3. After surgical wound closure

On physical examination, she was alert with a normal vital sign. Abdominal inspection: lump on suprapubic region, palpable hard mass diameter 8 cm, mobile, smooth surface. No tenderness and dull percussion. (picture 1)

Laboratory result of the blood test was found: hemoglobin 12,1 g/dL, white blood cell $4,8 \times 10^3/\mu\text{L}$, red blood cell $5,02 \times 10^6/\mu\text{L}$, platelet $356 \times 10^3/\mu\text{L}$, hematocrit 37,7%. Abdomen CT-Scan Non-Contrast showed a mass at the pelvic cavity that extends to the abdomen.

The treatment we performed was the exploratory laparotomy. At the operation, we found a left ovarian cyst size 12 x 12 x 15 cm.

DISCUSSION

Ovarian cysts are benign or malignant tumors found in the ovaries due to hormonal disturbances. Some ovarian cysts are asymptomatic and are identified incidentally by ultrasound. Most of these cysts are benign and less than 10% can be malignant.⁶

The history, in this case, was obtained by a 2-year-old child who came to the hospital with complaints of a lump in the lower abdominal area since 4 months ago. The lump seems to be getting bigger. No abdominal pain and bloating. Based on the theory, the presence of a tumor can cause a

protrusion of the abdomen. However, not all ovarian tumors show symptoms and signs.

In this case, surgery was carried out in the form of exploratory laparotomy. From this procedure, a single-colored cystic mass, the size of a baseball, was found on the left ovary. So, action followed by a cystectomy to remove the cyst. Treatment of cystectomy aims to maintain ovarian function. This is important because children need sufficient estrogen for pubertal development and fertility during adolescence. So it becomes the treatment of choice for cysts or teratoma.⁶

Long Term Outcome

In children who are diagnosed with ovarian cysts and have a history of ovarian cyst surgery, it is necessary to consult the pediatric gynecology department regarding future fertility.⁶

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