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Torsion of huge dermoid cyst in adolescent girl: A case report

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ABSTRACT

Huge ovarian mass is an uncommon finding in a female adolescent. Dermoid cysts are usually having very slow rate of growth about 1.8 mm per year, so giant dermoid cysts have been rarely reported in the literature. Here we present a case of huge cyst in a 15-year old girl having severe abdominal pain. Abdominal examination revealed regular cystic tender pelvi-abdominal mass corresponding to the size of 28 weeks pregnant uterus by palpation. Abdominal ultrasonography revealed the presence of right ovarian cyst measured 20 × 20 × 18 cm. Colour Doppler evaluation revealed no blood flow in the periphery of the mass. All investigations were normal. Immediate laparotomy revealed right gangrenous huge ovarian mass. Salpingo-oophorectomy was done and histopathological examination revealed twisted gangrenous dermoid cyst. She stayed at hospital for 3 days and then discharged in a healthy condition.

1. Introduction

Ovarian cysts are commonly seen during infancy and adolescence. Mostly, they are non neoplastic and hormonally dependent as follicular, simple, and corpus luteum cysts [1]. Ovarian cysts are rarely grown to reach huge size without raising any symptoms. Most of the cases that have huge cysts present with pressure symptoms over the genitourinary system leading to urinary complaints or the respiratory system lead to respiratory embarrassment [2].

Dermoid cysts account for 10–20% of all ovarian neoplasms. They are common in young women, especially at the age of 30 years. Additionally, they are also the most common ovarian cysts in adolescents [3]. In most of cases, they are asymptomatic and can be discovered accidentally on clinical examination or ultrasonographic scan [4].

Dermoid cysts are usually indolent tumors with very slow rate of growth about 1.8 mm per year [5]. Giant dermoid cysts have been infrequently reported in the literature. The incidence of torsion in a case of dermoid cysts is approximately 15%. Ovarian torsion is the fifth most common gynecological emergency condition [6] and for that, delayed diagnosis is not uncommon leading to disastrous results as ovarian infarction and necrosis [7].

We hereby report a case of huge cyst in a 15-year old girl having severe abdominal pain which was diagnosed as torsion in ovarian dermoid cyst.

2. Case history

In May 2016, a 15-year- old girl was presented to the emergency unit of Assiut Women's Health Hospital with acute lower abdominal pain of three hours duration. The pain was dull aching, mainly localized at the right side of the abdomen and radiating to the back. It was associated with vomiting three times. Her medical history was uneventful and her menstrual cycles were regular. She was in day 23.

On general examination, she was average body built, weighed 76 kg. Her Blood pressure was 100/70 mmHg, pulse was 110/min. There was no pallor. Cardiac and chest examinations were unremarkable. Abdominal examination revealed grossly distended abdomen by a pelvi-abdominal mass corresponding to the size of 28 weeks pregnant uterus by palpation. The mass was regular, cystic in consistency, very tender and had limited mobility. Liver, spleen and kidneys were normally palpable. There was no ascitis and intestinal sounds were audible.

Abdominal ultrasonography revealed the presence of huge cystic mass on the right side measured 20 × 20 × 18 cm with no free collection. The mass was unilocular, had thick wall well defined borders, turbid contents and solid area inside (Fig. 1). The other ovary couldn't be seen and the uterus was normal size. Two–dimensional colour Doppler evaluation revealed no blood flow detected in the periphery of the mass. Three-dimensional power

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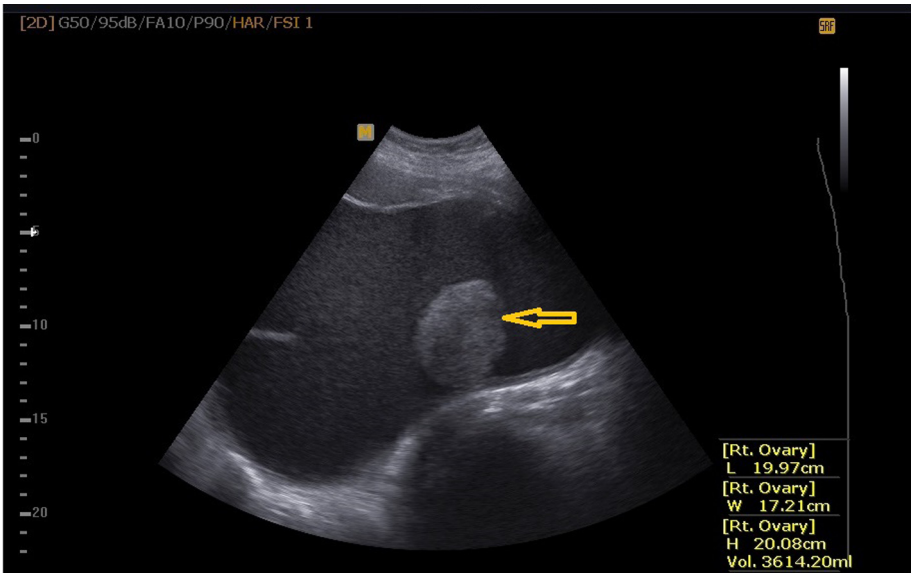

Fig. 1. Abdominal ultrasound showing huge right ovarian cyst 20 × 20 × 18 cm with solid area inside (yellow arrow).

Doppler (3DPD) analysis of the blood flow inside the mass revealed low vascular indices (Fig. 2).

Laboratory investigations, including hemoglobin level, platelet count, prothrombin time and concentration were all within normal range. Bases on high suspicion in the possibility of twisted ovarian cyst with infarction, the patient and her parents were counseled for the possibility of oophorectomy, and an informed written consent for abdominal exploration was obtained.

Abdominal exploration was done under general anesthesia through a right paramedian incision while the patient was lying in the supine position. There was a huge gangrenous heterogeneous mass originating from the right ovary not adherent to the surrounding viscera with repeated twists in its pedicle. The mass removed intact, with ipsilateral Fallopian tube stretched and adhered to its surface, by Salpingoophorectomy. The removed mass measured 20 × 18 cm (Fig. 3). Left ovary and tube were

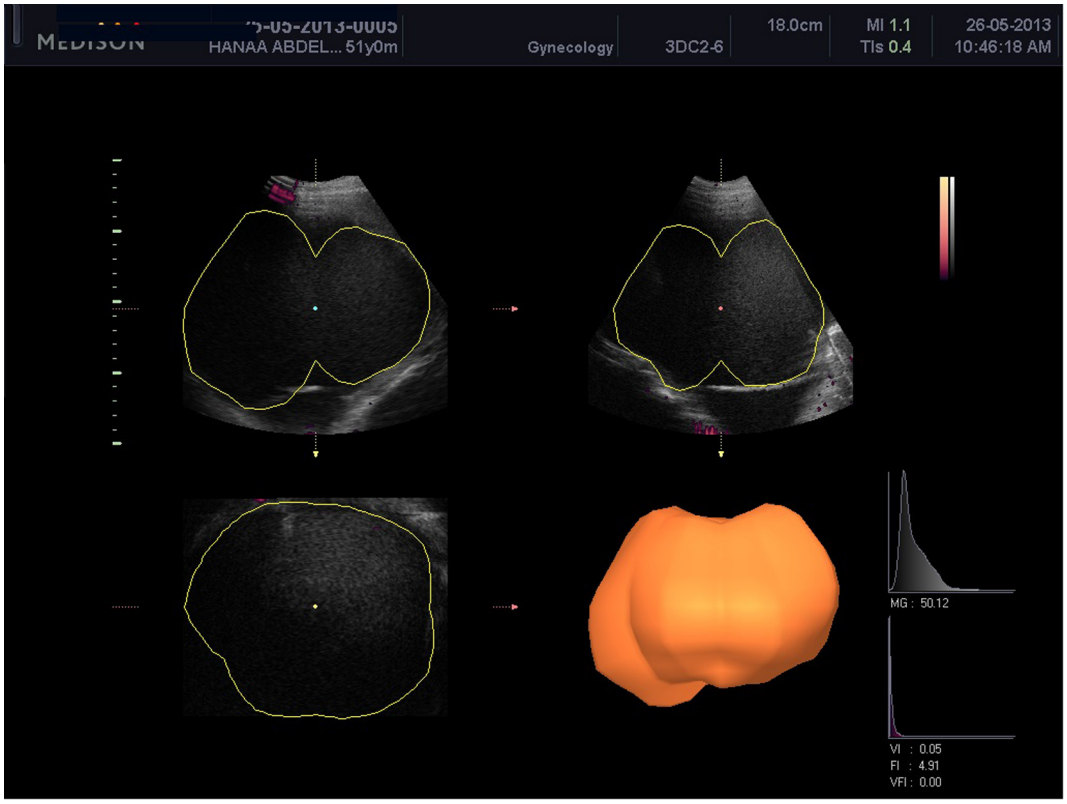

Fig. 2. Three-dimensional power Doppler analysis of the blood flow inside the mass revealed low vascular indices.

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