

Case Report

Pelvic retroperitoneal cyst during pregnancy

Ching-Hui Chen^a, Li-Hsuan Chiu^a, Jui-Yu Lin^a, Wei-Min Liu^{a,b,*}

^aDepartment of Obstetrics and Gynecology, Taipei Medical University Hospital, Taipei, Taiwan

^bDepartment of Obstetrics and Gynecology, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan

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Abstract

Objective: The diagnosis and treatment of adnexal mass during pregnancy is a major challenge for obstetricians. A rare case is reported of retroperitoneal cystic lesion during pregnancy.

Case Report: A 31-year-old woman was diagnosed with an adnexal cystic lesion at 8 weeks of gestation and underwent laparoscopic surgery at 14 weeks of gestation. During laparoscopic surgery, the bilateral ovaries and tubes were normal, but the lesion was located on the right-side retroperitoneal area. Aspiration and enucleation were performed successfully by laparoscopy. The pathology report revealed mucinous cystadenoma. The patient had a smooth pregnancy course and delivered a healthy baby at 39 weeks of gestation.

Conclusion: Laparoscopic surgery is a safe procedure in the management of pregnant women with suspicious adnexal cystic lesions.

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Keywords: adnexal mass; cystectomy; pregnancy; retroperitoneal mucinous cystadenoma

Introduction

Adnexal cystic lesions during pregnancy are a challenge to both obstetricians and pregnant women, especially during the first trimester since the harmful effects of surgery and medication are always a concern [1,2]. Although the majority of adnexal cystic lesions discovered in early pregnancy resolve spontaneously and seldom require intervention, the possibility of complications, for example, torsion, or rupture and malignancy, is unpredictable [3]. Some examinations, including serum tumor markers, magnetic resonance imaging (MRI), color Doppler, and ultrasound are available tools, however, none of them can offer a comprehensive prediction on the risk of aggressive or passive observation. The choice of intervention or expectant surgery as management is always dependent on the risk/benefit ratio to the mother and the fetus.

Herein, we present a rare case of retroperitoneal cystic lesion during pregnancy.

Case report

A 31-year-old woman, gravida 5, para 2, abortion 2, was referred to the outpatient clinic because of an early pregnancy and pelvic cystic lesion at 8 weeks of gestation. We continued follow-up to 13 weeks of gestation, but the lesion persisted and progressed (a 13-cm unilocular smooth-walled hypoechoic cyst). Laparoscopic surgery was arranged after a thorough discussion. Laparoscopy at 14 weeks of gestational age revealed a normal appearance of the bilateral adnexa, including the ovaries and tubes (Fig. 1). By contrast, a mass protruding from the right-side pelvic wall was noted (Fig. 2). The cyst was located in the retroperitoneal space near the junction of the cecum and appendix. With clear identification of the ureter and vessels, the retroperitoneum was opened and the entire cyst was explored. Aspiration was performed and the internal lining cover was removed carefully (Fig. 3). The resected cyst was removed using an endoscopic plastic bag. Grossly, the cyst wall was smooth without any solid

* Corresponding author. Department of Obstetrics and Gynecology, Taipei Medical University Hospital and Taipei Medical University, Number 252, Wu Hsing Street, Sinyi District, Taipei 110, Taiwan.

E-mail address: weiminliu50@hotmail.com (W.-M. Liu).



Fig. 1. Laparoscopy revealed the grossly normal ovary and tube.

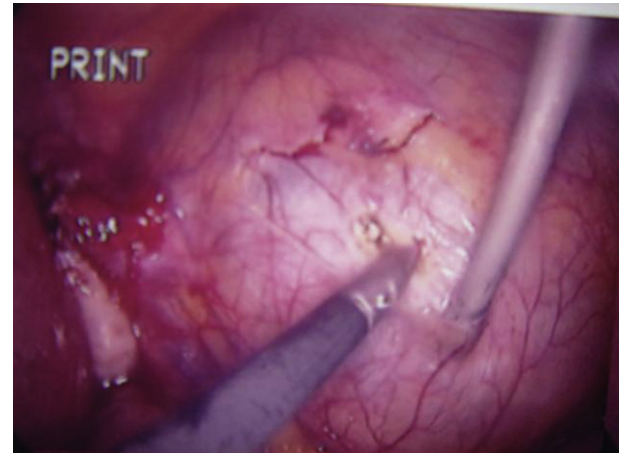


Fig. 3. Opening the retroperitoneum.

component or projections. All bleeders were carefully checked and other organs were intact (Fig. 4). The final pathology report revealed mucinous cystadenoma with a microscopically simple cuboidal to simple columnar epithelium and focal calcification.

Tocolytic treatment was initiated before operation and maintained for 24 hours postoperatively. The patient had a smooth pregnancy course and delivered a healthy baby at 39 weeks of gestation.

Discussion

It has always been a challenge for obstetricians to manage adnexal cystic lesions during pregnancy. The range of treatment options varies from surgical intervention to close follow-up. However, the management of these accidentally diagnosed adnexal cystic mass lesions during pregnancy is still debated, even the lesion comes with a risk of malignancy. Multiple factors including the anesthesia risk, fetal loss, the chances of being malignancy or self-resolving functional ovarian cyst, must be taken into consideration [4]. Furthermore, torsion is the most common and serious complications of ovarian tumor during

pregnancy [4]. Acute abdomen, for example, adnexal cystic mass lesions complicated with torsion or rupture, may be one of the most serious situations and it may be accompanied with early fetal loss if acute abdomen occurs during the first trimester [5]. Other risks factors including tumor type, for example, teratoma, and gestation period were also suggested. [2].

In the management of this patient, surgical intervention was performed at 14 weeks of gestational age on the basis of the following considerations. First, the risk of malignancy was present since the tumor size was more than 10 cm. Two studies supported a cut-off value of 10 cm for adnexal cystic lesions during pregnancy since tumor diameters ≥ 10 cm at the initial diagnosis during pregnancy had a higher risk of malignancy [2,6]. The laparoscopic approach was utilized to manage the patient while the malignancy was as severe as supposed. Ultrasound imaging and colored-Doppler imaging favored a benign lesion, revealing an echoic-free, smooth and regular surface without a projection or solid component, with no tumor vessel identification. We performed laparoscopic surgery for adnexal mass without spillage [7,8], and chemotherapy is suggested as an option when the benefits and risks are balanced [9]. In this case, we delayed the operation from 8

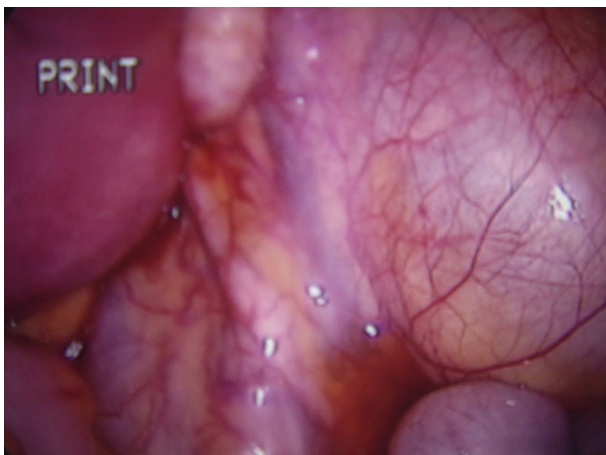


Fig. 2. A whitish mass protruding from the right-side pelvic wall is observed.

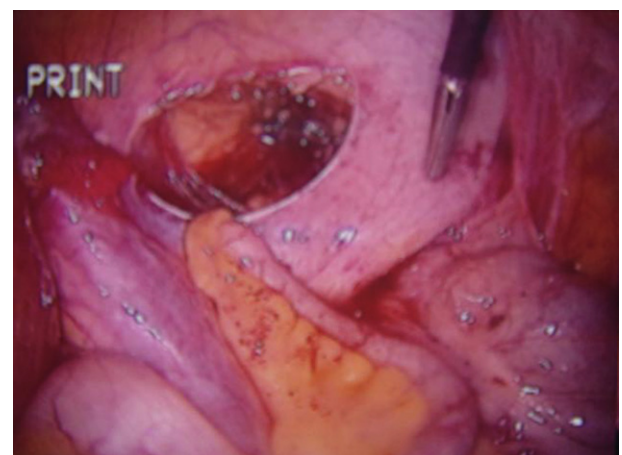


Fig. 4. A gross image of the defect of the retroperitoneum.

weeks to 14 weeks of gestation since the majority of functional cysts might resolve spontaneously after the first trimester; however, we still faced the risk of torsion since the occurrence is ranging from 18% [5] to 35% [2] and 41% [10]. In conclusion, we suggest that a 14-week gestational age to perform the operation would minimize the risk of fetal loss in this case.

Acknowledgments

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