



Incidental Discovery of Ovary Cystadenofibroma during Cesarean

Section: A Case Report

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Abstract

Serous cystadenofibroma of the ovary is a cystic neoplasm containing fibrous component, and lining of high, cylindrical, and ciliated epithelial cells surrounded by clear serous fluid, with smooth or papillary surface and abundant vessels. Serous cystadenofibroma in the present case report was an incidental discovery observed during an abdominal and pelvic cavity review performed in a 39-week elective cesarean section applied to in a 32-year-old patient who presented uneventful pregnancy. The importance of conducting inventories of these cavities during cesarean sections to identify asymptomatic adnexal masses unseen in prenatal ultrasonography is clear.

Keywords

Cystadenofibroma, Cesarean Section, Ultrasonography, Incidental Discovery, Pregnancy

Introduction

The diagnosis of asymptomatic adnexal masses during pregnancy has become more frequent due to ultrasonography use for fetal evaluation [1].

Most ovary tumors related to pregnancy are benign. Masses identified during pregnancy are rarely malignant, which shows incidence rate of approximately 1-8% [1,2]. However, this is not the only risk associated with adnexal mass during

pregnancy; benign masses in the second trimester of pregnancy can lead to complications such as torsion, rupture, and labor obstruction [3,4], which demands thorough and careful monitoring by the obstetrician. It is important highlighting the benign cystic teratoma, mucinous cystadenoma, luteal cyst, serous cystadenoma, and simple cyst, among all benign masses [5]. On the other hand, there are histological types, such as cystadenofibroma, which are rarely found but that can be serious; their most common

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types are: endometrioid, clear cell, mucinous or mixed type [6-8].

Cystadenofibroma is rare and classified by WHO as serous, endometrioid, clear cell, mucinous, or mixed depending on its epithelium. Cystadenofibroma can be benign, borderline, or malignant, based on its epithelial proliferation and stromal components; moreover, it has varying sizes that range from 01 to 20cm - mean size of 9cm. The rarity of this tumor encouraged the authors of the current study to report the case of an asymptomatic patient with ovarian mass identified during the cesarean section.

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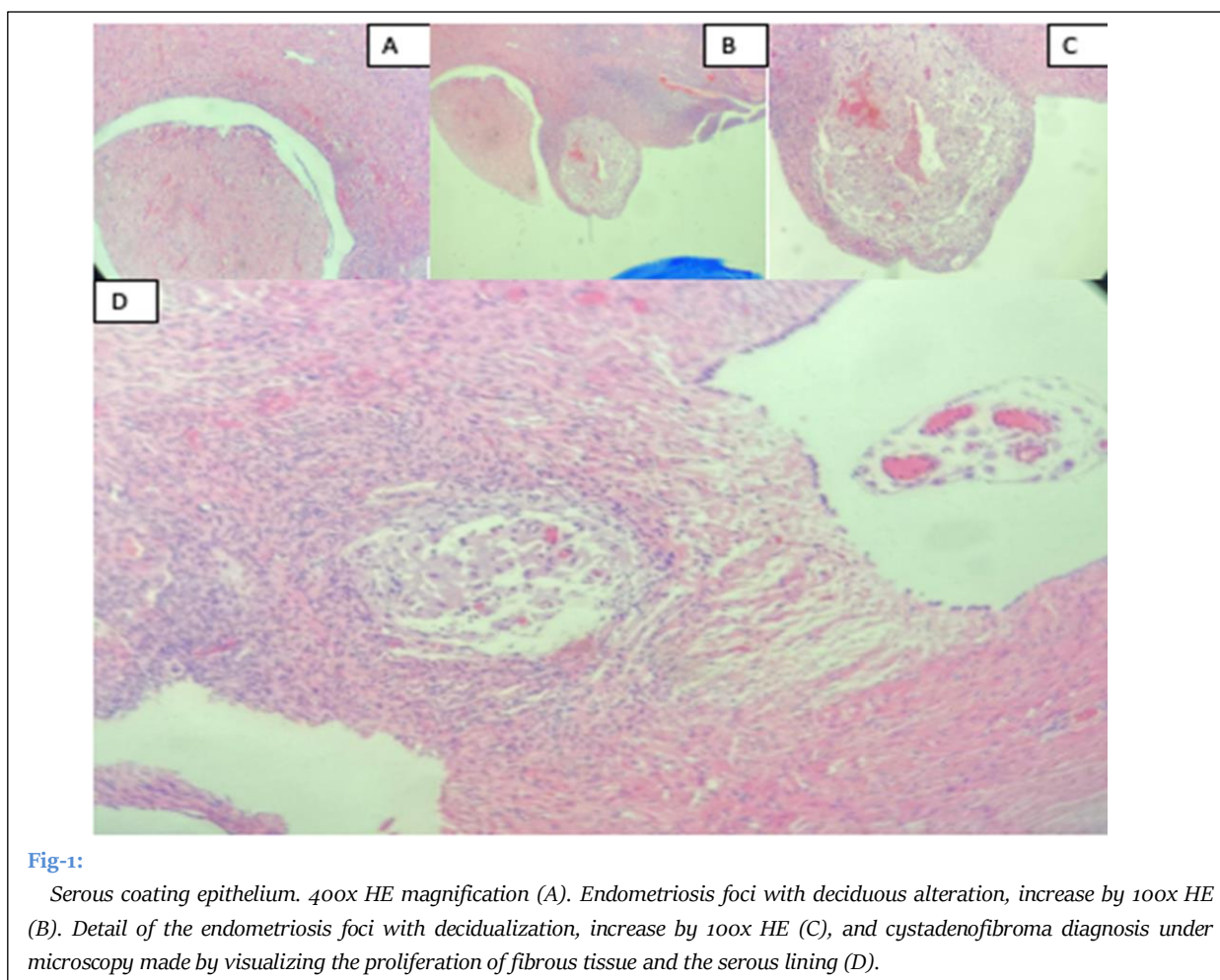
Pregnant woman, aged 32 years, G2P1A0 (one previous surgical procedure), without previous comorbidities, up-to-date vaccination history and without complications or ultrasound changes

throughout the prenatal period (**Table-1**). The patient underwent the elective Cesarean section at 39 weeks of pregnancy. An exophytic lesion (0.5cm in its widest dimension) was found in her right ovary during the procedure. Excision of the lesion was performed, with margin, and the collected material was sent for histopathological studies. Results have shown macroscopically normal contralateral ovary, smooth and shiny peritoneum, and no signs of ascites. Macroscopic laboratory examinations identified an irregular, brownish, verrucous, firm, and elastic fragment (dimensions: 1.5x1.0x0.8 cm). The microscopic examination diagnosed cystadenofibroma with foci of endometriosis. The patient had a satisfactory evolution and was discharged 48 hours later. The newborn had good evolution and was considered adequate for its gestational age (AGA) (**Fig-1**).

Table-1: Laboratory exams of the patient

Exam	First trimester	Second trimester	Third trimester
Hb (g/dl) / HTC (%)	12.5 / 36.5	11.5 / 35	12.1 / 36.4
Ferritin	-	20,3	-
Fasting Blood Glucose (mg/dl)	86	86	91
OGTT75g (mg/ dl)	-	J=86, 1h=100, 2h=98	-
Toxoplasmosis	IgM neg , IgG neg	IgM neg , IgG neg	IgM neg , IgG neg
Rubella	IgM neg , IgG pos	IMMUNE	IMMUNE
CMV	IgM pos , IgG neg	IMMUNE	IMMUNE
Anti- HCV	Negative	Negative	Negative
Anti- HIV	Negative	Negative	Negative
VDRL/ FTA-ABS	Negative	Negative	Negative
HBsAg	Negative	IMMUNE	IMMUNE
Anti- HBs	Positive→ 11.6	-	-
Urine test	Negative	-	-
Urine culture	Negative	-	Negative
FT4/TSH	-/0.689	0.82/1,012	0.78/1.61
Vitamin D	21.1	23.4	28.5
Vitamin B12	274	-	-
ABORh	O positive		
Ultrasound	GA 7/8 weeks	GA 20/21 weeks, normal arteries in doppler	GA 34/35 weeks,normal amniotic fluid,U/C=0.77, EFW=2639g

Hb: Hemoglobin; Htc: Hematocrit; OGTT75g: Oral Glucose Tolerance Test with 75g of Dextrose; CMV: Cytomegalovirus; ABORh: ABO Group and Rh Type; U/C=Umbilical/Cerebral Doppler; EFW=Weight Fetal Estimated



Discussion

Ovary tumors related to pregnancy are mostly benign; functional ovarian cysts are the most common type of them; however, there are other formations, such as cystic teratomas, cystadenomas, and endometriomas [1]. The real incidence rate of cystadenofibroma is unknown; however, it is relatively rare and can happen in women in the age group 23 to 80 years - mean age of 59 years [2].

Complaints related to cystadenofibroma are similar to those from other adnexal masses: pelvic pain, increased abdominal circumference, and presence of abdominal or pelvic mass and non-menstrual vaginal bleeding [4]. Patients with pain or asymptomatic manifestations represent 25% of the cases [5]. Overall, cystadenofibroma are well-defined tumors, without stromal atypia and absent or rare mitotic figures, with benign biological behavior and extremely rare recurrence [5]. The patient had an initial lesion, completely asymptomatic, with verrucous aspect and

well delimited, if its small volume is taken into consideration.

Pregnant women diagnosed with cystadenofibroma are becoming more common because of ultrasound used to monitor fetal development [6]. Cystadenofibroma can appear more severe than they truly are in imaging exams because there are solid elements and thick septa in its structure. However, as for the assessed case, cystadenofibroma was discovered during the Cesarean section; it was not identified in previous imaging exams performed throughout prenatal care. We believe that the cystadenofibroma was not identified because of its small size on the ovarian surface, which made it difficult to be seen in the first trimester.

A surgical approach to benign adnexal tumors can apply conservative techniques, such as tumorectomy and partial oophorectomy or cystectomy. Oophorectomy is indicated for torsion in intracavitary

hemorrhage due to tumor rupture and in suspected malignancy during pregnancy [7]. However, depending on tumor histologic type and patients' age, it is important to take into account the preservation of fertility and of the hormonal function [8]. The choice for lesion excision in the herein reported patient, with margin, resulted from lesion size, patient's age, as well as from the absence of ascites and peritoneal implants, and normal contralateral ovary.

It is important highlighting the relevance of abdominal cavity inventory in cesarean sections after fetus and attachment extraction, with the evaluation of uterine tubes, ovaries, and peritoneum. Abdominal cavity review allowed identifying a small tumor that was not previously noticed through ultrasound examination. Tumor excision avoided its growth and any related complication, such as compression, pain, and even another surgical procedure. Recently, a young patient presented low-grade tumour in the cecal appendix during cesarean section [9]. Another report identified bilateral dysgerminoma during cesarean section applied to a young patient, after induction failure [9].

The authors of the current study highlight the importance of prenatal care, as well as of clinical examinations and of ultrasound exams during pregnancy to identify complications. In addition, it is also important pointing out the relevance of performing abdominal cavity inventory with inspection of uterine tubes and ovaries after placenta extraction during cesarean sections. Tumor mass removal and histopathological evaluation of the inventory to identify ovary tumors are of great importance an ultimate diagnosis and to determine the appropriate conduct for each case.

Conflict of Interest

All authors have read and approved the final version of the manuscript. The authors have no conflicts of

interest to declare.

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