

## Surgical Treatment of Endometrioma During Pregnancy: A Case Report

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### Abstract

A case of surgical treatment of ovarian endometrioma during pregnancy is presented in the article. A 29-years old woman with an adnexal mass detected during pregnancy underwent elective adnexectomy at 18 weeks of pregnancy due to the large tumor size and high risk of malignancy. No complication was observed in the postoperative period and during pregnancy. The diagnosis of ovarian endometrioma was histologically confirmed. The pregnancy ended with at-term vaginal delivery of a healthy newborn.

**Keywords:** Endometriosis; Pregnancy; Childbirth; Endometrioma; Adnexectomy

### Introduction

Currently, there is a limited number of publications on the diagnostics and management of endometriosis during pregnancy and childbirth. Endometriosis during a gestational period can be accompanied by such complications as hemoperitoneum, intestinal perforation, secondary appendicitis, torsion, and rupture of the endometrioid cyst [1-3]. The hormonal changes associated with pregnancy may result in necrosis and perforation of decidualized endometriotic lesions with severe bleeding [4]. There are unfavorable obstetric and perinatal outcomes due to these complications [5]. Management of pregnant women with endometrioid cysts remains the subject of discussion. However, the appropriate management of life-threatening complications due to endometriosis during pregnancy can improve obstetric and perinatal outcomes [6].

### Case

A pregnant woman 29 years old was admitted to the gynecology department with a diagnosis of 18 weeks of pregnancy and a right-sided adnexal mass. The current pregnancy was fifth. The woman had one vaginal birth and three artificial abortions in anamnesis. Woman did not have comorbidities or gynecological diseases.

The tumor of the right ovary was detected during pregnancy at the gestational age of 7 weeks. At the ultrasound examination, it is a round shape of 93\*69 mm in diameter, with a homogeneous dispersed structure, without registration of blood flow.

Laboratory examination of ovarian cancer markers was performed, including CA-125 with the value of 69 U/ml (normal range of 0-35 U/ml), HE4 with the value of 37.7 pmol/l (normal range of 0-70 pmol/l), ROMA index 4.3% (ROMA index value less than 7.4% indicates a low risk of epithelial ovarian cancer) [1]. The multidisciplinary team, involving obstetrics, oncogynecology, and anesthesiology specialists, recommended elective surgical treatment with removing an ovarian tumor at 16-18 weeks of pregnancy.

The surgical treatment was performed via laparotomy under general anesthesia during hospital admission. During abdominal cavity revision, a cyst-like tumor of 15 cm in diameter in the right ovary with multiple adhesions with the posterior uterine wall and the right fallopian tube was identified. The pregnant uterus with left adnexa and other visualized abdominal organs were without pathological changes. After dissection of adhesions, the right-sided adnexectomy was performed. After removal from the abdominal

cavity, the tumor wall was examined: the cavity contained 200 ml of chocolate-colored fluid, and no papillary growth on the internal and external surface of the tumor was identified. The intraoperative blood loss did not exceed 200 ml. Postoperative histological examination confirmed the diagnosis of right ovary endometrioma.

The perioperative management included pregnancy-preserving therapy with oral micronized progesterone, intraoperative antibiotics (ceftriaxone), venous thromboembolism prophylaxis in the postoperative period (compression stockings, low molecular weight heparin). The postoperative period proceeded without complications. The woman was discharged seven days after surgery for ambulatory antenatal monitoring.

The pregnancy ended with spontaneous, uncomplicated vaginal delivery of a healthy newborn at 39 weeks. No pathological changes in the left adnexa were identified during ultrasound examination in the postpartum period.

### Conclusion

In the presence of clinical indications, surgical treatment of ovarian endometrioma in the second trimester of pregnancy can be considered a safe and appropriate measure for women and fetus with favorable obstetric and perinatal outcomes. The use of modern methods for preventing pregnancy complications (progesterone medications, venous thromboembolism prophylaxis, and safe antibiotics) can reduce the risks associated with surgery during pregnancy. Surgical treatment of ovarian endometriomas during pregnancy does not exclude the possibility of vaginal delivery.

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