PRIMARY OVARIAN PREGNANCY

Ahmet C Çalışkan Assist Prof. MD, Hakan Aytan Assist Prof. MD, Fazlı Demirtürk Assoc Prof. MD
Gaziosmanpasa University Medicine Faculty Department of Obstetrics and Gynecology, Tokat

ABSTRACT

Ovarian pregnancy comprises 0.15% of all pregnancies and 1% to 3% of ectopic gestations. It is usually diagnosed with laparotomy or laparoscopy, and it may mimic a hemorrhagic corpus luteum. We report a case of ruptured ovarian pregnancy with hemodynamic instability managed by laparotomy. To confirm the suspected diagnosis of extrauterine pregnancy we used clinical examination, serum β-hCG levels and transvaginal ultrasonography preoperatively. Laparotomic wedge resection was performed to the right ovary and the final diagnosis was established by histopathologic examination. Every clinician treating women of reproductive age should keep this diagnosis in mind. Early diagnosis is essential to avoid maternal morbidity and mortality. Preservation of ovarian tissue should be the therapeutic goal to maintain ovarian reserve and preserve fertility in young women with ovarian pregnancy.

Key Words: *Ovarian, ectopic, pregnancy, laparotomy.*
Nobel Med 2011; 7(3): 119-120

PRİMER OVER GEBELİĞİ

ÖZET

Ovaryen gebelik, tüm gebeliklerin %0,15'ini, ektopik gebeliklerin %1-3'ünü oluşturmaktadır. Hemorajik korpus luteumu taklit edebilmektedir. Tanı, laparotomi veya laparoskopi esnasında konulmaktadır. Olgu sunumumuzda, hemodinamik olarak stabil kabul edilmeyen, rüptüre olup laparotomi ile tedavi edilmiş bir ovaryen gebelik bildirilmiştir. Ameliyat öncesi şüpheli dış gebeliğin tanısının doğrulanmasında klinik muayene, serum β-hCG düzeyleri ve transvaginal ultrasonografi kullanıldı. Dış gebeliğin görüldüğü sağ overe laparotomik wedge rezeksiyon uygulandı ve kesin tanı histopatolojik muayene sonrası konuldu. Üreme çağındaki tüm kadınların değerlendirilmesinde bu tanı klinisyenin aklında bulunmalıdır. Erken konulan tanı ile maternal mortalite ve morbidite önlenmiş olacaktır. Over gebeliği görülen genç kadınlarda over rezervlerinin kaybolmaması ve fertilitenin korunması amacıyla tedavide amaç over dokusunun mümkün olduğunca korunması olmalıdır.

Anahtar Kelimeler: Over, ektopik, gebelik, laparotomi. **Nobel Med 2011; 7(3): 119-120**

INTRODUCTION

An ectopic pregnancy implanted in the ovary is rare, occuring in only 0,5-1% of such pregnancies.[1] This condition usually occurs in parous women and signs and symptoms are similar to those encountered in tubal pregnancy. Varying density distribution in the ovary can predispose to ovarian torsion. Etiological factors of tubal pregnancies such as previous pelvic infection or endometriosis have not been found to be relevant risk factors for ovarian pregnancies.[2] Diagnostic criteria for ovarian pregnancy are defined by Spiegelberg et al.[3] as follows: Intact ipsilateral tube, clearly separate from the ovary, gestational sac occupying the position of the ovary, sac connected to the uterus by the ovarian ligament and histologically proven ovarian tissue located in the sac wall. Having to the availability of sensitive assays for human chorionic gonadotropin and the development of transvaginal ultrasound, early diagnosis of an ectopic pregnancy has been made more feasible. However the Practice Committee of the American Society for Reproductive Medicine recommended that ovarian pregnancy should be definitively diagnosed by surgical exploration.[4]

We reported a case of ruptured ovarian pregnancy with hemodynamic instability managed by laparotomy.

CASE

A 37 year-old women, gravida 3, para 2 was refered by a 7 week history of amenorrhea, positive urine pregnancy test, generalized abdominal pain and mild vaginal bleeding. Clinical examination revealed a palpable →

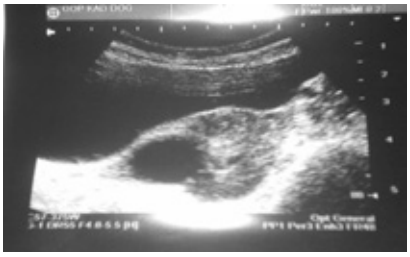

Figure 1. Suspected right adnexal sac-like tissue with a nearby ovarian shadow and fluid accumulation in the cul-de-sac

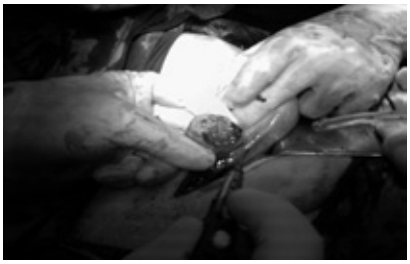

Figure 2. A 2 cm swelling lesion with active bleeding at the edge of the right ovary. Laparatomic wedge resection was performed.

adnexal mass during vaginal examination. Transvaginal sonography examination revealed an empty uterus and fluid accumulation in the cul-de-sac. With suspected right adnexal sac-like tissue and a nearby ovarian shadow (Figure 1). Serum β-hCG concentrations at the time of presentation were 2265 µIU/m L. She had no previous history of sexually transmitted disease or pelvic inflammatory disease. There was no history of tubal surgery or ectopic pregnancy.

The patient was heamodynamically instable with signs of acute abdomen. Severe abdominal tenderness, irregular spotting from the cervix and positive lifting tenderness were noted during physical and pelvic examination. The hemoglobin and hematocrit levels were 8.2 mg/dl and 28%, respectively. The initial diagnosis of right ectopic pregnancy was made on the basis of physical examination and laboratory findings. An urgent laparatomy was conducted, and revealed a hemoperitoneum of almost 700 ml and a 2 cm swelling lesion with active bleeding at the edge of the right ovary (Figure 2). Laparatomic wedge resection was performed uneventfully and she was discharged the following day. The final diagnosis was established by histopathologic examination showing that the pregnancy was limited to the ovary (Figure 3).

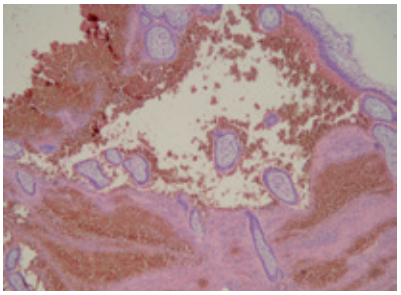

Figure 3. Vital chorionic villus formations within disseminated hemorrhagic resorbed areas on the ectopic focus and ovarian tissue with follicules. (HE, x 20)

DISCUSSION

Ovarian pregnancy was reported in 1878 by Spiegelberg using four diagnostic criteria.[3] Misdiagnosis can reach around 75%, however, because the pregnancy is confused with a corpus luteum cyst.[5] Even when viewed directly, unruptured ovarian pregnancy appears similar to a hemorrhaging luteum cyst. Pre and intraoperative diagnosis of ovarian ectopic pregnancy is difficult. A definitive diagnosis depends on histopathological examination.[5] In the past, ovarian pregnancy had been treated by ipsilateral oopherectomy, but the trend has since shifted toward conservative surgery such as cystectomy or wedge resection performed at either laparotomy or laparoscopy. Systemic methotrexate administration is also a common practice today in tubal pregnancies. However, we would like to use the consensus statement from The Practice Committee of the American Society for Reproductive Medicine as our opinion on the medical treatment of women with primary ovarian pregnancies [6] that is a primary ovarian pregnancy can only be diagnosed definitively at the time of surgical exploration, including laparoscopy and laparotomy, and methotrexate is therefore not a suitable first-line treatment for this condition. Due to the heamotological instability of our patient, we performed laparotomy and ovarian wedge resection of the gestational bleeding zone. Transvaginal sonography and serum β-hCG evaluation, together with a high index of suspicion, make early diagnosis of ovarian pregnancy feasible, so avoiding the use of a relatively ineffective treatment strategy such as systemic methotrexate. [7]

CORRESPONDING AUTHOR: Ahmet C Çalışkan Assist Prof. MD Türkkonut Yapı Kooperatifi Yeşilpark Sit., Kardelen Apt. No:58-1 D. 15 Çayyolu 2, Ankara ahmetcantug@hotmail.com

DELIVERING DATE: 02 / 03 / 2009 • **ACCEPTED DATE:** 08 / 11 / 2009

REFERENCES

1. Pan HS, Huang LW, Lee CY, et al. Ovarian pregnancy torsion. Acta Gynecol Obstet 2004; 270: 119-121.
2. Stovall TG, McCord ML. Early pregnancy loss and ectopic pregnancy. In: Proceedings of the Novak's Gynecology. 12th ed. Baltimore, ML, USA. Williams &Wilkins, 1996. p. 491.
3. WHO. A multinational case control study of ectopic pregnancy: Task Force on Intrauterine Devices for Fertility Regulation. Clin Reprod Fertil. 1985; 3: 131-143.
4. Practice Committee of the American Society for Reproductive Medicine.Medical Treatment of ectopic pregnancy. Fertil Steril 2006; 86: 96-102.
5. Halat JG. Primary ovarian pregnancy. A report of 25 cases. Am J Obstet Gynaecol 1982; 143: 50-60.
6. Alleyassin A, Khademi A, Aghahosseini M, et al. Comparison of success rates in the medical management of ectopic pregnancy with single-dose and multiple-dose administration of methotrexate: a prospective, randomized clinical trial. Fertil Steril 2006; 85: 1661-1666.
7. Juan YC, Wang PH, Chen CH, et al. Successful treatment of ovarian pregnancy with laparoscopy-assisted local infection of etoposide. Fertil Steril 2008; 90: 1200.