

## Koryokarsinomda Kemoterapi Sırasında Gelişen Spontan Uterus Rüptürü: Olgu Sunumu ve Literatür Değerlendirmesi

### Spontaneous Uterine Rupture in Chorio carcinoma during Chemotherapy: A Case Report and Literature Review

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Received:23.07.2014 Accepted:06.08.2014 DOI: 10.5505/aot.2014.69775

#### ÖZET

**Amaç:** Koryokarsinoma bağlı gelişen spontan uterus ruptüre vakasını sunduk.

**Vaka:** 28 yaşında miad gebeliği takiben gelişen koryokarsinom tanılı hastaya multi ajan kemoterapi (Ethoposite 100 mgr/m<sup>2</sup> + cisplatin 20mgr/m<sup>2</sup>) başlandı. Hastanın tedavisi sırasında spontan uterus ruptüre gelişti ve total abdominal histerektomi uygulandı.

**Sonuç:** Gestasyonel trofoblastik hastalıklar içinde en ciddi seyreden formlardan biri olan koryokarsinom medical tedaviye rağmen spontan uterus perforasyonu ile prezente olabilir.

**Anahtar Kelimeler:** Koryokarsinom; Kemoterapi; Uterine Rüptür.

#### ABSTRACT

**Objective:** We describe a rare case of choriocarcinoma with spontaneous uterine perforation.

**Case:** A 28 year-old patient presented with uterine perforation and hypovolemic shock during chemotherapy treatment for choriocarcinoma following term pregnancy. Total abdominal hysterectomy was done.

**Conclusion:**Choriocarcinoma may be presented with spontaneous uterine perforation in spite of chemotherapy regimen.

**Key words:**Choriocarcinoma, Chemotherapy; Uterine Rupture.

#### Introduction

Gestational trophoblastic diseases (GTDs) especially affect the women in reproductive period. Choriocarcinoma is one of the most severe form of GTDs and characterized by local invasion with distant metastasis (1,2). Rapid growth and myometrial invasion may be followed by uterine perforation (3).

In the present study we report one of the spontaneous uterine perforation cases of the uterus following choriocarcinoma during the chemotherapy.

#### Case

A 28 year-old women, gravida 1 with 2 children presented with the complaint of weakness and active vaginal bleeding for 2 weeks. In her history, she had been delivered 35 weeks in vitro fertilization (IVF) twin pregnancy 2 months ago by cesarean section

without any postoperative complication. She had complained about active vaginal bleeding for 2 weeks. On physical examination she was pale with a blood pressure 110/60 mmHg, heart rate 95 beats/min, her laboratory values showed hemoglobin level 4.1 gr/dl, hematocrit %14.7 and  $\beta$ hCG 1.280.000 U/L. Endometrial hyperechogenicity was demonstrated by transvaginal ultrasound.

She underwent evacuation curettage after blood transfusion and pathology confirmed choriocarcinoma. Abdomen, brain and thorax were evaluated as normal with computed tomography scan. In her laboratory findings hyperthyroidism was determined and treated with propylthiouracil. Methotrexate with folic acid as a rescue treatment was given for 8 days. Even though  $\beta$ hCG decrement to 385000 IU/L was observed because of steady state level around this values, multiagent

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regimen (Etoposide 100 mg/m<sup>2</sup> + cisplatin 20 mg/m<sup>2</sup> for 5 days, every 21 days, sequentially) treatment was planned. While giving patient the day-1 therapy of the first cycle, an abdominal tenderness has been occurred. Hypovolemic shock with acute groin signs was developed. Arterial blood pressure decreased to 50/40 mmHg and pulse increased up to 140/min. Free fluid in groin and bilateral theca lutein cysts were seen in ultrasonographic evaluation. In urgent exploratory laparotomy, uterine fundal perforation with 3x2 cm and active bleeding from this region was observed (Fig. 1). Tumoral tissues were expelled from

uterine serosa. Total abdominal hysterectomy was done.

**Figure 1:** Picture of uterine perforation



### Discussion

GTD are classified histologically as hydatidiform mole, invasive mole, choriocarcinoma and placental site trophoblastic tumour (2). GTD can be malignant and benign, also disseminate by local invasion or distant metastasis.

Choriocarcinoma is a rare tumour of GTD, primarily a disease of women younger than 35 year-old and showed local and distant dissemination (1). Malignant GTD mostly metastasize to the lung by hematogenous pathway but local myometrialvascular invasion and uncommonly with the result of invasion spontaneous uterine perforation was reported in the literature (3-5).

The incidence of choriocarcinoma is showed geographical variation, ranging between 1/20000-40000 after pregnancy and it is decreased to 1/160000 after term pregnancy (6). Diagnosis and treatment of molar pregnancy achieved with surgical evacuation of uterus by dilatation and curettage in more than 80% of cases. Because of high chemosensitivity of the tumor, total cure rate reached above 90% even in the presence of persistent or metastatic lesions (2). If the patient has completed her childbearing and tumour confined to the uterus, hysterectomy is recommended (6).

Nonmetastatic and low-risk metastatic GTD can be treated with single agent chemotherapy. Methotrexate is the first option in the majority of the cases however actinomycin-D may be used in the patient with abnormal liver function test. Methotrexate, actinomycin-D and cyclophosphamide (MAC regimen) and etoposide, methotrexate,

actinomycin, cyclophosphamide and vincristine (EMA-CO regimen) as multiagent chemotherapy can be used for high-risk metastatic GTD (7). In this case age and fertility desire of patient was considered in the treatment plan so firstly suction curettage was done followed by methotrexate with folicacid rescue treatment. However there was no any regression in the  $\beta$ hCG values so multiagent chemotherapy (etoposide-cisplatin) was started. During multiagent treatment total abdominal hysterectomy was performed due to uterine perforation.

There have been few published reports describing localized uterine resection followed by uterine reconstruction (1,8). In this case, large perforated area together with tumoral invasion involving the serosa was observed therefore hysterectomy was done. Pradhan et al. reported choriocarcinoma with spontaneous perforation managed by conservatively. They mentioned the patient had been successfully treated with immediate chemotherapy, EMA-CO regimen avoiding laparotomy (9). In this patient hypovolemic shock was developed so urgent laparotomy and hysterectomy were performed. Xie et al reported a patient with uterine perforation, even  $\beta$ hCG become negative for 3 months after chemotherapy (10). The acute onset of the disease by uterine rupture as the first symptom and the negative urine hCG test were also presented in one case report (11).

Choriocarcinoma is one of the most severe form of GTD and characterized by local invasion and distant metastasis. Rapid growth and myometrial invasion may be followed by uterine perforation in this neoplasia.



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