



### Spontaneous Ovarian Hyperstimulation Syndrome in a Term Pregnancy

Term Gebelikte Spontan Over Hiperstimülasyon Sendromu

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#### ABSTRACT

Spontaneous OHSS in a term pregnancy is extremely rare. The aim of this study is to present a case of spontaneous ovarian hyperstimulation syndrome (OHSS) in a term pregnancy. A 29-year-old primigravida woman conceived spontaneously and was observed up until 35 weeks of gestation. During this time the patient had a normal pregnancy with normal ovaries. She applied to the current clinic during the 37th week of gestation with complaints of rapid weight gain, abdominal disturbance, and pain. Ultrasound examination showed large bilateral ovaries with multiple follicles and mild ascites. At 39 weeks of gestation, the ovaries were the same as detected previously, and a caesarean section was performed due to fetal macrosomia. A healthy female foetus weighing 4060 gr was delivered. The enlarged bilateral ovaries containing multiple follicles were drilled with electrocautery. The ovaries returned to a near normal state for two weeks after the birth. There are no reported cases of spontaneous OHSS in late pregnancy in the literature. Ovarian drilling may be useful during caesarean section.

**Key words:** Spontaneous OHSS, term pregnancy, ovarian drilling.

#### ÖZET

Gebelik döneminde spontan OHSS son derece nadirdir. Bu çalışmanın amacı, term gebelikte spontan over hiperstimülasyon sendromunu sunmaktır. 29 yaşındaki primigravid kadının 35 haftaya kadar olan gebeliği gözlemlendi. Bu zaman süresince hastanın normal overlere sahip normal bir gebeliği vardı. Hasta kliniğe 37 haftalık iken hızlı kilo alma, abdominal sıkıntısı ve ağrı ile başvurdu. Ultrason inceleme çoklu foliküllü ve hafif assit içeren büyük multifoliküler overleri gösterdi. Gebeliğin 39. haftasında, overler daha önce tespit edilen ile aynıydı ve fetal makrozomi nedeniyle sezaryen uygulandı. 4060 gr ağırlığında sağlıklı bir kız bebeğin doğumu gerçekleştirildi. Multifoliküler içeren genişlemiş bilateral overler elektrokoter ile delindi. Doğumdan 2 hafta sonra overler normal haline geri döndü. Literatürde geç gebelikte meydana gelen spontan OHSS ile ilgili hiç vaka bildirilmedi. Sezaryen sırasında over delimi ileride yararlı olabilir.

**Anahtar kelimeler:** Spontan OHSS, gebelik dönemi, over delimi.

#### INTRODUCTION

OHSS is a life-threatening complication of infertility treatment. This condition generally occurs with exogenous gonadotropins and less frequently

with clomiphene citrate. Spontaneous OHSS is extremely rare. The incidence of mild OHSS varies between 5–10% and the incidence of severe OHSS between 0.2–0.5% of cycles in anovulatory

women treated with different preparations for induction of ovulation. The incidence in women treated by assisted reproduction is 2–4% moderate OHSS and 0.1–0.5% severe OHSS<sup>1</sup>. In its most severe form, there is a tremendous increase in ovarian size (greater than 10 cm increase in diameter) with attendant abdominal distention, ascites, pleural effusion, and decreased intravascular volume<sup>2</sup>. Severe ovarian hyperstimulation associated with a spontaneously conceived singleton pregnancy is extremely rare.

We assessed to report a rare case of spontaneous OHSS in term pregnancy.

### CASE PRESENTATION

A 29-year-old woman with no significant past medical or surgical history presented to the antenatal clinic of Dicle University with complaints of abdominal pain and distention. She was observed up until 35 weeks of gestation, and her pregnancy and both ovaries were normal during this time. The patient complained of rapid weight gain, abdominal distension, and pain, and she presented to her current physician during the 37<sup>th</sup> week of gestation.

Physical examination revealed vital signs within normal limits, and ultrasound examination showed that the foetus was 37 weeks old with

normal biometric measurements. However, enlarged bilateral ovaries with multiple follicles were detected (Figure 1). The right ovary measured approximately 136x112 mm, and the left ovary measured 105x87 mm. Mild ascites were also detected. A diagnosis of spontaneous ovarian hyperstimulation syndrome (OHSS) was made. Laboratory testing revealed normal concentrations of haemoglobin, haematocrit, and platelets, and other laboratory studies including serum electrolyte panel, renal function, coagulation profile, and liver function tests were within normal limits. We started prophylactic treatment with low molecular weight heparin.

At 39 weeks of gestation, the ovaries were the same as previously seen, and a caesarean section was performed due to foetal macrosomia. A healthy female foetus was delivered. The foetus weighed 4060 gr, measured 52 cm in length, and had 9–10 APGAR scores. The bilateral ovaries were enlarged and contained multiple follicles. The bilateral ovaries were drilled with electrocautery (Figure 2). The patient was discharged on the second postoperative day without problems, and her condition was observed with weekly ultrasound examinations. The ovaries returned to a near normal state for two weeks after birth.

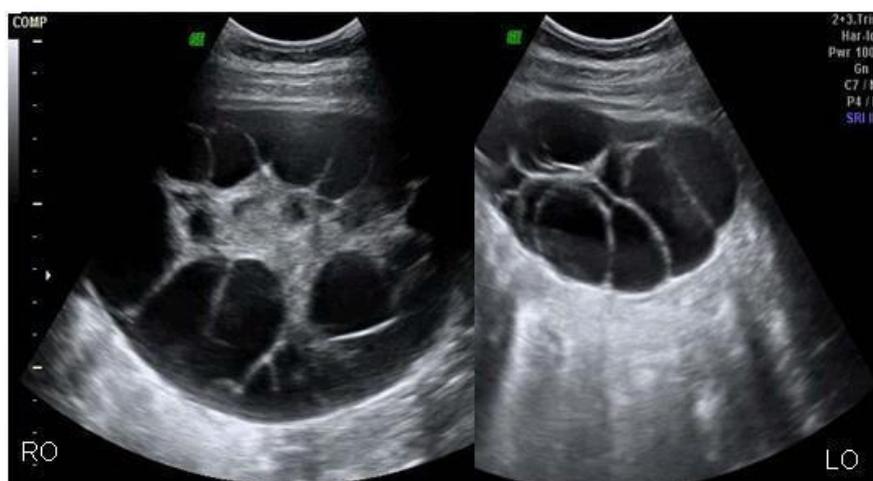


Figure 1. The appearance of spontaneous OHSS at 39 weeks of gestation on ultrasound.



**Figure 2.** The appearance of spontaneous OHSS at 39 weeks of gestation during cesarean section.

## DISCUSSION

Ovarian hyperstimulation syndrome (OHSS) is an iatrogenic, systemic disease which can occur as a complication when the ovaries are stimulated for fertility treatment. This most often occurs in the context of assisted conception, such as in-vitro fertilization (IVF), but it can occur after any form of ovarian stimulation, including clomiphene and gonadotrophin ovulation induction. The risk is much higher with HMG use, young age (<35 years), PCOS, high serum estradiol levels before hCG stimulus, low body mass index, history of atopy or allergies, previous OHSS, increased number of ovarian follicles, high or repeated doses of hCG and gonadotropin-releasing hormone agonist therapy, and pregnancy. Although OHSS is predominantly an iatrogenic condition, there are reports of it occurring during multiple pregnancies or in association with hydatidiform moles, both of which are associated with an increased level of hCG<sup>3</sup>. Zalel and colleagues<sup>4</sup> described a case of OHSS associated with spontaneous pregnancy in a woman with polycystic ovarian disease.

Rotmensch and Scommegna<sup>5</sup> reported another case of spontaneous OHSS in an ovulatory non-pregnant patient with trisomy 21 and hypothyroidism. Our case is interesting in that the patient had a term pregnancy and no risk factors for OHSS.

In general, OHSS occurs at the beginning of pregnancy and rarely continues beyond the first trimester. Di Carlo et al. reported two case of familial, recurrent, and spontaneous ovarian hyperstimulation syndrome ending in a successful pregnancy<sup>6</sup>. The course of pregnancy and obstetrical complication in women with OHSS did not differ from that of the normal patients<sup>7</sup>. However, there are no studies about the pregnancy outcomes of women with spontaneous OHSS; there are only limited reports of cases resulting in successful pregnancies. Ayhan et al. reported a case of severe spontaneous OHSS at 12 weeks of gestation and excised the enlarged cysts successfully<sup>8</sup>. To the best of our knowledge, this is the first case of spontaneous OHSS occurring during the late third trimester. We

performed ovarian drilling to the ovaries and multiple follicles were treated with electrocautery.

In conclusion, spontaneous OHSS during term pregnancy is an extremely rare condition. There are no reported cases of spontaneous OHSS during late pregnancy in the literature. Ovarian drilling may be useful during caesarean section.

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