

## Ectopic Pregnancy with Undetectable Serum B-Human Chorionic Gonadotropin

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### Introduction

Ectopic Pregnancy (EP) has been estimated to complicate about 2% of pregnancies. The diagnosis of ectopic pregnancy is based on the demonstration of pregnancy using serum  $\beta$ -hCG assays in a patient into fertility age, associated with low abdominal pain and sometimes discrete vaginal bleeding of usually dark and scant blood. EP is characterized by low but detectable initial  $\beta$ -hCG level at 4 weeks of gestation or 9 days following a transfer of a blastocyst, and/or inappropriate rising in serum  $\beta$ -hCG levels, which one should duplicate in 48 hours to be considered normal evolution. Besides, is wise to take in account the fact of heterophils antibodies presence to avoid unjustified interventions, surgical or medical. Thus, a negative test confirmed with a urine negative test, usually allows the exclusion of the diagnosis of trophoblastic activity.

Weird cases of ectopic pregnancy with negative  $\beta$ -hCG assays have been reported previously<sup>[1-4]</sup>. We present an unusual case of ectopic pregnancy resulting in acute abdominal pain despite negative results for serum  $\beta$ -hCG tests.

### Case Presentation

A 37 year old woman, gravida 0, was seen in our Emergency Section for scant vaginal bleeding at 4,5 weeks gestation. A transvaginal pelvic ultrasound was performed at the time of being admitted and was negative.  $\beta$ -hCG level was 300 mIU/ml.

Two days later the  $\beta$ -hCG level remained in 248 mIU/ml, and started to decrease until to be undetectable levels after ten days.

Thirty days later the patient reported the onset of moderate lower abdominal pain and a left adnexal mass appears. Transvaginal ultrasound showed a heterogeneous mass in the left adnexal region of 65 mm. in diameter (Figure 1).  $\beta$ -hCG was negative.



**Figure 1:** Abdominal heterogeneous mass in left adnexa by transvaginal ultrasound.



An emergency laparoscopy approach was performed and showed a necrotic and edematous left fallopian tube. Left salpingectomy was performed. Anatomopathological study confirmed a chronic ectopic pregnancy with chorionic villi present. The patient tolerated the procedure well and was discharged home in a stable condition after 24 hours.

## Discussion

EP is an important although few frequent gynecological emergency and is a potential cause of morbidity or even mortality in women<sup>[5]</sup>. While the majority of women with an unknown localization of pregnancy are subsequently diagnosed with a spontaneous abortion or viable intrauterine pregnancy, almost 10 to 20% of them will have an ectopic pregnancy<sup>[6]</sup>. Evidence provided by previous studies<sup>[7,8]</sup>, suggests that expectant management is a safe and effective approach for most women under these clinical situations unless the clinical situation became in an emergency as in our case. However, in the case of persisting a positive HCG and no localization of the source of it, is wise to think in the possibility of an ectopic pregnancy. Transvaginal hydro laparoscopy has been proposed to explore and eventually treat an EP under these conditions without abdominal incisions<sup>[7]</sup>. The best single parameter to suspect an EP is the  $\beta$ -hCG ratio<sup>[9]</sup> without to take in account the presence of heterophil antibodies. The classic triad of lower abdominal pain, amenorrhoea and vaginal bleeding was seen in 29(40.3%) cases as stated by Tahmina et al<sup>[9]</sup>.

## Comments

Ectopic pregnancy is weird but possible with low or negative qualitative or quantitative  $\beta$ -hCG results. Because of the potential for tubal rupture and serious maternal morbidity or mortality, obstetricians must suspect an ectopic pregnancy in all women in fertility ages, with lower abdominal pain and or discrete vaginal bleeding, even if  $\beta$ -hCG is negative. In the case of an unstable clinical situation, a laparoscopically abdominal procedure should be performed to explore the abdominal cavity and eventually treat an EP.

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