

DÜŞÜK β -HCG DEĞERİ (51.6 mIU/ml) İLE RÜPTÜRE OLAN EKTOPIK GEBELİK OLGUSU KISA BAŞLIK: DÜŞÜK β -HCG EKTOPIK RÜPTÜRÜ

A Case of Ruptured Ectopic Pregnancy with Low β -Hcg Value (51.6 mIU/ml) Short Title: Low Hcg Ectopic Rupture

İsa KAPLAN *

ÖZET

Ektopik gebelik fertilize olmuş ovumun endometrial kavite dışında herhangi bir yere implante olması olarak tanımlanmaktadır. Klinik pratikte çok düşük β -Hcg değerlerinde de ektopik gebelik rüptürüyle karşılaşılabilir. Bizim bu olgumuzda 51.6 mIU/ml β -Hcg değeri mevcut idi. Hastamız 28 yaşında olup daha önce iki gebeliği normal vajinal yol ile sorunsuz sonuçlanmıştır. Hastaya son doğumdan sonra kontraseptif amaçlı takılmış bakırlı rahim içi araç (RİA) mevcuttur. Hasta acile yeni başlayan kıvrandırıcı tarzda karın ağrısı ile gelmiştir. Hastanın acilde bakılan β -Hcg değeri 51.6 mIU/ml olarak saptanmıştır. Kliniğimizde bakılan TV-USG'de endometrial kavitede RİA görülmüş olup endometrial kalınlık 10 mm olarak ölçülmüştür. Batın içi en derin yerde 6-7 cm serbest mayi izlenmiştir. Hastanın geliş hemogram değeri 12.8 g/dl iken kontrol hemogram değeri 9.5 g/dl olarak saptanmıştır. Akut batını ve batın içi yaygın mayisi olan hasta rüptüre ektopik gebelik olarak değerlendirilmiştir. Hasta acil laparotomiye alınmıştır. İntraoperatif sol infundibulum tuba uterinada 3x2x2 cm civarında rüptüre halde ektopik odak izlenmiştir. Ayrıca batın içi 800 cc pıhtılı hemorajik mayi görülmüştür. Hastaya salpingostomi ve primer onarım yapılmıştır. Ayrıca RİA çıkarılıp dilatasyon küretaj işlemi yapılmıştır. Hastanın kontrol hemogram değerinde düşme olmamıştır. 24 saat sonra bakılan β -Hcg değeri ise 26.01 mIU/ml olarak saptanmıştır. Nihai patoloji sonucu ektopik gebelik rüptürü olarak gelmiştir. Ektopik gebelik rüptürü ile β -Hcg değeri çok düşük hatta negatif olduktan sonra da karşılaşılabilir. Bizim bu olgumuzda düşük β -Hcg değeri olmasına rağmen rüptür ve abondan batın içi kanama gelişmiştir. Ektopik gebelik olgularında tedavi seçiminde çok dikkatli olunmalı ve hastalar olası bu durumlar hakkında bilgilendirilmelidir. Özellikle bekle gör yaklaşımlarında olası rüptür akılda tutulmalıdır.

Anahtar Kelimeler: Ektopik gebelik; Rüptüre ektopik gebelik; Beta-Human Chorionic Gonadotropin (β -Hcg)

Sorumlu Yazar:

Adı Soyadı: Dr. İsa KAPLAN

Adres: Muğla Ortaca Yücelen Hastanesi Kadın Hastalıkları ve Doğum Kliniği, Muğla, Türkiye

e-mail: isakaplan_48@hotmail.com

ABSTRACT

In clinical practice, ectopic pregnancy rupture can also be encountered at very low β -Hcg values. In our case, there was a 51.6 mIU/ml β -Hcg value. Our patient is 28 years old, and two previous pregnancies ended uneventfully with normal vaginal delivery. The patient has a copper intrauterine device (IUD). The patient came to the emergency room with a new onset of excruciating abdominal pain. The patient's β -Hcg value, which was checked in the emergency room, was found to be 51.6 mIU/ml. In TV-USG performed in our clinic, IUD was seen in the endometrial cavity, and the endometrial thickness was measured as 10 mm. 6-7 cm free fluid was observed in the deepest part of the abdomen. The patient's admission hemogram value was 12.8 g/dl, while the control hemogram value was 9.5 g/dl. The patient with acute abdomen and diffuse intra-abdominal fluid was considered a ruptured ectopic pregnancy. The patient was taken to an emergency laparotomy. A ruptured ectopic focus of approximately 3x2x2 cm was observed in the intraoperative left infundibulum tuba uterina. In addition, 800 ccs of clotted hemorrhagic fluid were observed in the abdomen. The patient underwent salpingostomy and primary repair. In addition, the IUD was removed and dilatation curettage was performed. The patient's control hemogram value did not decrease. The β -Hcg value measured 24 hours later was found to be 26.01 mIU/ml. The final pathology result was ectopic pregnancy rupture. Ectopic pregnancy rupture may occur even after the β -Hcg value is very low or even negative.

Key Words: Ectopic pregnancy; Ruptured ectopic pregnancy; Beta-Human Chorionic Gonadotropin (β -Hcg)

* Dr. Muğla Ortaca Yücelen Hastanesi Kadın Hastalıkları ve Doğum Kliniği, Muğla, Türkiye

INTRODUCTION

An ectopic pregnancy is defined as the implantation of a fertilized ovum in any place other than the endometrial cavity. The incidence of ectopic pregnancy varies between 1-16/1000 in all pregnancies (Yao & Tulandi, 1997). History of previous tuba uterine surgery, infection or congenital tubal uterine damage, pelvic inflammatory disease (PIH), presence of an intrauterine device (IUD), and previous ectopic pregnancy are among the most important risk factors (Hajenius et al., 2007; Yıldırım et al., 2007). Although there has been an increase in the incidence of ectopic pregnancy in recent years, treatment approaches have shifted from emergency laparotomy to medical therapy and even to standby therapy in low β -hCG values. This is because of the increased sensitivity of β -hCG measurements used in diagnosis and follow-up, and ultrasonographic follow-up has an important place in follow-up (Fujishita et al., 2008). Interventional procedures should be avoided as much as possible, especially in patients with a continuing desire for fertility. For this reason, the wait-see approach is more valuable in patients with appropriate indications. Although tubal rupture is frequently seen in high β -hCG values in ectopic pregnancy patients, it can also be encountered in low β -hCG values. Ectopic pregnancy rupture is rarely encountered in the literature with a β -hCG value below 100 mIU/ml (Galstyan & Kurzel, 2006; Fu et al., 2007). In this case report, a low-grade ruptured patient with acute intra-abdominal hemorrhage was discussed.

CASE

Our patient is 28 years old and has a history of two previous pregnancies. All pregnancies resulted in normal vaginal delivery. There is no additional

disease. Our patient applied to the emergency department with a new onset of agonizing abdominal pain. In the anamnesis taken from the patient, it was learned that she did not know the exact date for contraceptive purposes and that she had a copper IUD inserted 2-3 years ago. A week ago, she complained of vaginal bleeding. In the physical examination of the patient, the entire abdomen was tender and rebound and defense were found. The patient's β -Hcg value, which was checked in the emergency room, was found to be 51.6 mIU/ml (Figure 1).


| Rapor Grubu: | Numune Türü: | Serum | Onaylayan: |
|--|--|---|---|
| Num. Alım Tar. 11 Şubat 2020 Salı 16:08:20 | Lab Kabul Tar. 11 Şubat 2020 Salı 16:11:49 | | Onay Tar. 11 Şub |
| Tetkik Adı | Sonuç | Referans Aralığı | 1 Önceki Tar. 1 Önceki Sonu |
| Beta-hCG | 51,60 | * 4. Hafta 9,5 - 750 mIU/ml 10. Hafta 46509 - 186977 mIU/ml 6. Hafta 158 - 31795 mIU/ml 14. Hafta 13950 - 62530 mIU/ml 7. Hafta 3697 - 163563 mIU/ml 16. Hafta 9040 - 56451 mIU/ml 18. Hafta 8099 - 58176 mIU/ml 3. Hafta 6,8 - 71,2 mIU/ml 5. Hafta 217 - 7138 mIU/ml 8. Hafta 32065 - 149571 mIU/ml 12. Hafta 27832 - 210612 mIU/ml 9. Hafta 63803 - 151410 mIU/ml | 28.3.2017 08:57:47 0,201  |

Figure 1: β -Hcg value

In TV-USG performed in our clinic, IUD was seen in the endometrial cavity and the endometrial thickness was measured as 10 mm. 6-7 cm free fluid is observed in the deepest part of the abdomen. The patient's initial hemogram value was 12.8 g/dl, while the control hemogram value was 9.5 g/dl. The patient with diffuse intra-abdominal fluid and elevated β -Hcg was evaluated as a ruptured ectopic pregnancy. The patient with acute abdominal findings was taken for emergency laparotomy. Under general anesthesia,

the abdomen was entered with a Pfannenstiel incision. Approximately 800 ccs of fresh uncoagulated hemorrhagic fluid were seen in the abdomen. In addition, ruptured ectopic focus around 3x2x2 cm was observed in the left infundibulum tuba uterina (Figure 2).



Figure 2: Ectopic focus

It was observed that there was active bleeding from the existing ruptured ectopic focus. Irrigation was aspirated with 1000 cc sterile warm saline in the abdomen. Considering the patient's age and fertility status, salpingostomy and primary tubal injury repair

were performed. Since the patient underwent a salpingostomy, a removal drain was placed in the abdomen for bleeding control. Also, the patient's IUD was removed and dilatation curettage was performed. The patient's control hemogram value did not decrease. The β -Hcg value measured 24 hours later was found to be 26.01 mIU/ml. The patient, whose general condition was stable, was discharged to be followed up from the outpatient clinic weekly until the β -Hcg values were negative. The final pathology result was ectopic pregnancy rupture (Figure 3).

TANI

- 1-SEKRETUAR ENDOMETRİYUM (ENDOMETRİUM, KÜRETAJ MATERYALI)
- 2-TUBAL EKTOPIK GEBELİK, rüptüre ektopik gebelik materyali.
- 3-PARATUBAL KİST (PARATUBAL/PARAOVARIAN KİST EKSIZYONU)

Figure 3: Pathology result

DISCUSSION

Ectopic pregnancy is one of the most important causes of first-trimester mortality and morbidity (Yao & Tulandi, 1997). Significant changes have been experienced in the follow-up and treatment of ectopic pregnancy. Today, conservative approaches are more prominent (ACOG, 2018). While the medical treatment protocol with methotrexate is preferred in patients with lower β -Hcg levels, small gestational sacs, and in whom surgical treatment is not possible. A Conservative wait-and-see approach may be preferred in patients whose β -Hcg and progesterone levels are low and tend to regress spontaneously, the gestational sac cannot be detected ultrasonographically, and is suitable for close follow-up (Yao & Tulandi, 1997; Canis et al., 2003; Murray et al., 2005). In our case, the diagnosis of ectopic pregnancy was not made before. The patient

evaluated the vaginal bleeding one week ago as a menstrual cycle. It is understood that our case would have been a good candidate for wait-and-see therapy had it been diagnosed before. 25-77% of ectopic pregnancies regress spontaneously with the wait-see approach. However, there is no consensus on which patients should use the wait-see approach and how much follow-up is required. This approach is mostly recommended for patients with small gestational sacs, unstably ruptured, and low β -Hcg values (Fu et al., 2007). Although a decrease in β -Hcg during wait-and-see therapy is a good prognostic parameter, it is not sufficiently reliable. There are cases of ruptured tubal pregnancy, even after β -Hcg values regress or even become negative (Hochner-Celnikier et al., 1992; Lurie et al., 1994; Grynberg et al., 2009). Therefore, one should be very careful during the wait-and-see treatment. The patient should be warned and informed in detail about this issue. Several mechanisms have been proposed to explain the persistence of ectopic pregnancy at low β -Hcg values or after β -Hcg

becomes negative. These are the cessation of hormone production due to trophoblast degeneration, the decrease in the volume of the hormone-producing villus, the undetectable incorrect synthesis of β -Hcg, and the increased clearance of the hormone from the circulation (Grynberg et al., 2009). Although there was no previous β -Hcg value in our patient, the fact that the patient's abdominal pain had just started and he had no previous symptoms suggested that the rupture occurred at new, that is, very low β -Hcg values. As a result, treatment algorithms should be arranged according to the patient in patients with ectopic pregnancy diagnoses. If the wait-see approach is to be chosen as the treatment, the patients should be followed very carefully and closely. Ectopic pregnancy rupture can also be encountered at very low β -Hcg values. If the rupture has developed, the type of operation should be decided together with the patient, taking into account the patient's condition.

REFERENCES

- Committee on Practice Bulletins—Gynecology (2018). ACOG Practice Bulletin No. 191: Tubal Ectopic Pregnancy. *Obstetrics and gynecology*, 131(2), e65–e77. <https://doi.org/10.1097/AOG.0000000000002464>
- Canis M, Savary D, Pouly JL, Wattiez A, Mage G. Grossesse extra-utérine: critères de choix du traitement médical ou du traitement chirurgical [Ectopic pregnancy: criteria to decide between medical and conservative surgical treatment?]. *J Gynecol Obstet Biol Reprod*. 2003; 32(7 Suppl): S54-63. French. PMID: 14699319.
- Fu, J., Henne, M. B., Blumstein, S., & Lathi, R. B. (2007). Rupture of ectopic pregnancy with minimally detectable beta-human chorionic gonadotropin levels: a report of 2 cases. *The Journal of reproductive medicine*, 52(6), 541–542.
- Fujishita, A., Khan, K. N., Kitajima, M., Hiraki, K., Miura, S., Ishimaru, T., & Masuzaki, H. (2008). Re-evaluation of the indication for and limitation of laparoscopic salpingotomy for tubal pregnancy. *European journal of obstetrics, gynecology, and reproductive biology*, 137(2), 210–216. <https://doi.org/10.1016/j.ejogrb.2007.01.016>
- Galstyan, K., & Kurznel, R. B. (2006). Serum beta-hCG titers do not predict ruptured ectopic pregnancy. *International journal of fertility and women's medicine*, 51(1), 14–16.
- Grynberg, M., Teysseire, J., Andre, C., & Graesslin, O. (2009). Rupture of ectopic pregnancy with negative serum beta-hCG leading to hemorrhagic shock. *Obstetrics and gynecology*, 113(2 Pt 2), 537–539. <https://doi.org/10.1097/AOG.0b013e318190a2bb>

- Hajenius, P. J., Mol, F., Mol, B. W., Bossuyt, P. M., Ankum, W. M., & van der Veen, F. (2007). Interventions for tubal ectopic pregnancy. The Cochrane database of systematic reviews, 2007(1), CD000324. <https://doi.org/10.1002/14651858.CD000324.pub2>
- Hochner-Celnikier, D., Ron, M., Goshen, R., Zacut, D., Amir, G., & Yagel, S. (1992). Rupture of ectopic pregnancy following disappearance of serum beta subunit of hCG. *Obstetrics and gynecology*, 79(5 (Pt 2)), 826–827.
- Murray, H., Baakdah, H., Bardell, T., & Tulandi, T. (2005). Diagnosis and treatment of ectopic pregnancy. *CMAJ : Canadian Medical Association journal = journal de l'Association medicale canadienne*, 173(8), 905–912. <https://doi.org/10.1503/cmaj.050222>
- Lurie, S., Katz, Z., Weissman, A., Zalel, Y., & Caspi, B. (1994). Declining beta-human chorionic gonadotropin level may provide false security that tubal pregnancy will not rupture. *European journal of obstetrics, gynecology, and reproductive biology*, 53(1), 72–73. [https://doi.org/10.1016/0028-2243\(94\)90143-0](https://doi.org/10.1016/0028-2243(94)90143-0)
- Yao, M., & Tulandi, T. (1997). Current status of surgical and nonsurgical management of ectopic pregnancy. *Fertility and sterility*, 67(3), 421–433. [https://doi.org/10.1016/s0015-0282\(97\)80064-7](https://doi.org/10.1016/s0015-0282(97)80064-7)
- Yıldırım G, Güngördük K, Aktaş FN, Ülker V, Sudolmuş S, Tekirdağ Aİ. Ektopik Gebelik Tedavisinde Tek Doz Metotreksat: 85 Olgunun Değerlendirilmesi. *TJOD*. 2007; 4: 68-71. <https://app.trdizin.gov.tr/publication/paper/detail/TnpZMk5URXg>