



## Case Report

# Case Report: Massive Hematocel with An Intrauterine Pregnancy

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### KEYWORD

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### ABSTRACT

**Introduction:** Incidence of ectopic pregnancy can be an acute or chronic condition. The condition of chronic ectopic pregnancy itself is unique, arises from a minor rupture, and then develops into a hematocel. Chronic ectopic pregnancy is quite complicated to diagnose because it usually has a prolonged clinical course and can disappear spontaneously.

**Case Presentation:** A woman aged 31-32 weeks, aged 24 years, complained of right abdominal pain accompanied by nausea and vomiting. Examination of vital signs was 120/80 mmHg, pulse 84 x/min, RR 20x/min, temperature 36.70C, and SpO2 of 98% with pale conjunctiva and abdominal tenderness in the right upper quadrant. On laboratory examination, the patient found severe microcytic normochromic anemia (Hb 4.5 mg/dl; MCV 96.6 Fl; MCH 30.2 pg), thrombocytopenia (platelets 133,000 L) and hypoalbumin (albumin 2.82 L). Ultrasound examination showed a mass in the right adnexa accompanied by intrauterine pregnancy. The patient underwent a laparotomy and found a mass in the form of a blood clot (hematocel) of 30x20x20 cm.

**Conclusion:** Chronic ectopic pregnancy is a rare condition, especially in developed countries. A clinician should be more detailed in diagnosing and considering the ultrasound, an amorphous mass with avascularity to amass with complex vascular formation. This is very necessary considering that this hematocel mass can develop progressively to cause fetal growth disorders.

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## INTRODUCTION

An ectopic pregnancy is characterized by a gestational sac outside the endometrium. Ectopic pregnancy becomes chronic when multiple small bleedings in the abdominal cavity and pelvic hematocel are formed [1]. The exact incidence of chronic ectopic pregnancy (CEP) is challenging to estimate due to its rarity and different definitions in the literature. When using an ideal definition of chronic ectopic pregnancy based on its histopathology, it can be assumed that the incidence of chronic ectopic pregnancy in the patient population is up to 20% in ectopic pregnancy [2]. Incidence of chronic ectopic pregnancy is infrequent in developed countries, such as the UK, because an adequate antenatal care service supports it. Serum

human chorionic gonadotropin (hCG) can be a marker of the process of a chronic ectopic pregnancy, but this is the opposite due to the rare formation of chorionic villi, causing levels of hCG to be low to negative. This causes a false negative resulting in a delay in diagnostic management [3].

Patients with a suspected chronic ectopic pregnancy will experience chronic or subacute lower abdominal pain accompanied by low serum hCG; in addition, sonography may reveal an adnexal mass formation with surrounding blood vessels without an intrauterine gestational sac [4]. Macroscopically, chronic ectopic pregnancy was seen as a mass with necrotic cells, composed of fibrotic cells and blood resulting from repeated disintegration of the fallopian tube wall [5]. An ectopic pregnancy can form a massive hematocel, and

this case was related to this such condition, massive hematocele with intrauterine 31-32 weeks gestation.

## CASE PRESENTATION

A pregnant woman, aged 24 years, came to the hospital's emergency room with complaints of upper right abdominal pain and felt since the morning before entering the ER, accompanied by complaints of nausea and vomiting. The patient was the first pregnant, with a 31-32 weeks gestational age. A month earlier, the patient had the same complaint and was hospitalized. From the previous examination results, the patient was diagnosed with anemia and thrombocytopenia with a right ovarian tumor.

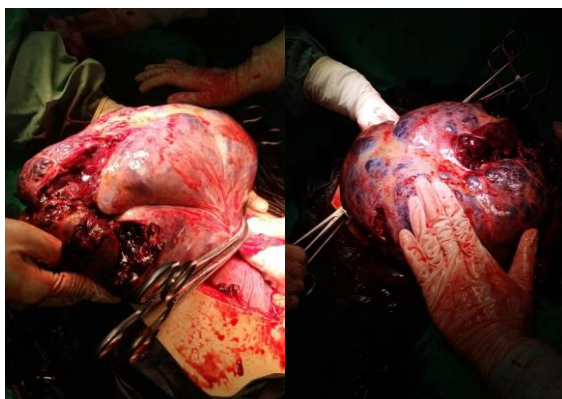


Fig. 1. Shows a tumor tissue obtained in Laparotomy

## Investigation

From the physical examination, she was aware of compositentis, with blood pressure at the time of admission that was 120/80 mmHg, pulse 84 x/min, RR 20x/min, temperature 36.7 o C, and SpO2 of 98%. The patient was anemia, and abdominal examination revealed right upper quadrant tenderness. Fetal FHR is 142x/min. Based on the laboratory results, there was severe microcytic normochromic anemia (Hb 4.5 mg/dl; MCV 96.6 Fl; MCH 30.2 pg), thrombocytopenia (platelets 133,000 L), and hypoalbumin (albumin 2.82 L). Based on the ultrasound results, it was found that a mass was formed in the right adnexa with a heterogeneous hypoechoic echo structure with fibrillar areas; the hypoechoic portion was concentrated with minimal intralesional vascularization suspected mature ovarian teratoma. Ascites and intrauterine pregnancy were also identified.

## Treatment

The patient was planned to undergo a laparotomy after anemia correction based on signs and symptoms. After the anemia and hypoalbuminemia had been corrected, the patient underwent laparotomy while maintaining an intrauterine pregnancy. The patient

underwent extirpation of the adnexal tumor and right oophorectomy by removing all tumor tissue and the right ovary measuring 30x20x20 cm.

## Outcomes and Follow Up

After extirpation of the adnexal tumor and right oophorectomy, we found an ovarian tumor tissue with necrotic and massive bleeding. Histopathology examination was concluded that it was a hematocele due to an ectopic pregnancy with infiltration of polymorphonuclear (PMN) and mononuclear (MN) inflammatory cells and necrotic chorionic villi. At 40 weeks of gestation, the patient underwent a cesarean section with a good baby APGAR score.

## DISCUSSIONS

The case raised in this report is a massive hematocele measuring 30x20x20 cm accompanied by an intrauterine pregnancy, where the patient's gestational age at arrival was 31-32 weeks. Before pre-operation, the patient had anemia and hypoalbuminemia. Based on persistent pain, this patient is planned to undergo a laparotomy procedure to remove the tumor tissue while maintaining the existing intrauterine pregnancy.

Symptoms and signs of an ectopic pregnancy vary widely, including abdominal or pelvic pain, missed periods, vaginal bleeding, and gastrointestinal disturbances to urinary disturbances and pain during bowel movements. Differential diagnoses of this case could be a pelvic inflammatory disease, endometriosis, and uterine fibroids [6]. From this case, the patient was diagnosed with a right ovarian tumor based on ultrasound; in addition, a histopathological result of a hematocele has also obtained a study conducted by Turan et al., stated that they used histopathological criteria to see the presence of a blood clot formation, the formation of a hematocele mass in the pelvis and the presence of tubal adhesions and surrounding organs such as the omentum as criteria for diagnosing chronic ectopic pregnancy [11].

Chronic ectopic pregnancy occurs when trophoblast tissue invades the implanted structure, causing prolonged damage to the attachment site, resulting in repeated rupture and minor bleeding [3]. The presence of a hematocele containing blood, blood clots, and active or inactive trophoblast tissue is a marker of development ectopic pregnancy and repeated rupture of tubal pregnancy. This hematocele will form adhesion and induce an inflammatory response. Clinically the growing hematocele will look like a pelvic mass in the peritoneal cavity [7,8]. In this case, the hematocele was found at the age of 31 - 32 weeks of pregnancy, and it was suspected that the hematocele had a progressive development.

Nacharaju presented a similar case on a 22-year-old woman with abdominal pain and spotting symptoms, and a bleeding hematocele measuring 8x6 cm was identified. Likewise, from the cases presented by Tempfer, a mass diameter of 6.8 cm was reported as a chronic ectopic pregnancy in their case report [1,2]. Moreover, this is a relatively large size in cases of chronic ectopic pregnancy; however, our case has obtained the size can grow to 30x20x20 cm, more extensive than the case reported before.

Serum  $\beta$ -hCG in early pregnancy was increased by two times compared with baseline values. The increment of serum  $\beta$ -hCG levels that occurs every 48 hours reflected the pregnancy progress and was not specific to ectopic pregnancy and logically clarified because of the presence of intrauterine pregnancy. Typically, an increase in serum levels that tend to be sluggish or decreased can also indicate the incidence of ectopic pregnancy [7]. One study found that the cut-off value of serum  $\beta$ -hCG levels on day 12 after embryo transfer was very useful in determining a pregnancy condition with a value of 91 IU/L as a marker of ectopic pregnancy incidence [9].

In this case, the patient's  $\beta$ -hCG was not examined, considering that the patient's gestational age was 31-32 weeks. Physiologically serum  $\beta$ -hCG increases at 9-10 weeks of gestation, however, after these weeks, the levels begin to decrease, and the production of HPL (human placenta lactogen) will start to increase, especially at 20 weeks of gestation until the end of pregnancy [10]. On this basis, the serum  $\beta$ -hCG in this patient was not examined considering the normal physiology of pregnancy, where results cannot be interpreted.

This is a rare case because ectopic pregnancy is usually found in early pregnancy, but a vast mass (30x20x20 cm) was found at 31-32 weeks of gestation and tends to grow and pain. This case is intended to be a particular case and can be used as a reference for further research.

## CONCLUSION

Chronic ectopic pregnancy is a rare condition, especially in developed countries. A clinician must be more detailed in diagnosing and considering that the ultrasound results obtained were an amorphous mass with avascularity to amass with complex vascular formation. It is essential to consider fetal growth disorder related to the progressiveness of hematocele.

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## CONFLICT OF INTEREST

The authors declare there is no conflict of interest.

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