

First-trimester sonographic diagnosis of massive subchorionic hemorrhage: a case report

Büyük subkoryonik hemorajinin ilk trimester sonografik tanısı: olgu sunumu

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Abstract

We present a 23-year-old woman was admitted due to vaginal bleeding at 14 weeks of gestation to our outpatient clinic. At 16th week of gestation, ultrasound examination showed a massive subchorionic hemorrhage at the anterior wall of the uterus with a size of 10 cm in length, 8 cm in width, and 2.2 cm in depth and extending to the posterior wall of the uterus through the cervix. At the 32 weeks of gestation the subchorionic hematoma disappeared. At the 38th week of the gestation successful vaginal delivery was performed without any complication. A good perinatal outcome was obtained with careful surveillance of maternal and fetal condition.

Keywords: Subchorionic hemorrhage, first trimester, pregnancy.

Özet

Polikliniğimize 14. gebelik haftasında vajinal kanama şikayeti ile başvuran 23 yaşındaki bir bayan hastayı sunuyoruz. Gebeliğin 16. haftasında yapılan ultrasonografi boyutları 10 cm uzunluğunda, 8 cm genişliğinde ve 2.2 cm derinliğinde olan, uterus ön duvardan başlayarak serviksi katedip uterus arka duvara uzanan büyük bir subkoryonik hemorajiyi göstermiştir. Gebeliğin 32. haftasında subkoryonik hematoma kaybolmuştur. Gebeliğin 38. haftasında komplikasyonsuz olarak başarılı bir vajinal doğum gerçekleştirilmiştir. Maternal ve fetal durumun dikkatli takibi ile iyi bir perinatal sonuç elde edilmiştir.

Anahtar sözcükler: Subkoryonik hemoraji, ilk trimester, gebelik.

Geliş tarihi/Received: March 12, 2009; **Kabul tarihi/Accepted:** April 18, 2009

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Introduction

Vaginal bleeding is a common problem in the first trimester, occurring in 20 to 40 percent of pregnant women [1, 2]. Vaginal bleeding in the presence of a closed cervix and ultrasonographic visualization of an intrauterine pregnancy with positive fetal cardiac activity is diagnostic of threatened miscarriage. In patients with threatened miscarriage, vaginal bleeding does not always result in pregnancy loss, even after repeated episodes or large amounts of bleeding in the first trimester. The bleeding may be a result of disrupted decidual vessels due to a separation at the subchorionic area.

Transvaginal or transabdominal ultrasonography is the cornerstone of the evaluation of bleeding in early pregnancy. Intrauterine hematomas are commonly observed features on ultrasound examinations, especially among patients with clinically evident bleeding in

early pregnancy [3]. If a small amount of bleeding is present, it cannot be visualized with ultrasonographic examination, but when it is large enough, it can appear as a hematoma. It may found in the subchorionic, retroplacental, and preplacental area.

We report a case of massive subchorionic hemorrhage diagnosed in the first trimester and showed successful recovery with a good perinatal outcome.

Case report

A 23-year-old woman, gravida 2, para 1, at 14th week of gestation first admitted to our clinic with the complaint of brown staining vaginal bleeding with no relation to intercourse and without cramping. She had no significant past medical history and had a unremarkable previous pregnancy, in addition, there was no history of trauma. The vaginal examination revealed no abnormality related to vagina, cervix, or uterus. Transabdominal ultrasound showed a single fetus with a normal heart rate. The placenta was located on the posterior wall of the uterus and no evidence of subchorionic hemorrhage at the ultrasonographic evaluation. The bleeding resolved but she was readmitted at 16th weeks of gestation with recurrent vaginal bleeding. Ultrasound examination showed a subchorionic hemorrhage at the anterior wall of the uterus with a size of 10 cm in length, 8 cm in width, and 2.2 cm in depth and extending to the posterior wall of the uterus through the cervix (Figure 1).



Figure 1. Representative ultrasound image of subchorionic hematoma (SH: subchorionic hematoma, P: placenta).

There was no intra-amniotic small floating debris. Vital signs were normal and complete blood count showed that the hemoglobin level was 13 g/dL. Second trimester screening with triple test (MS-AFP, uE3, hCG) showed a low risk for trisomy 21. She was treated with oral hydration, oral magnesium citrate 300 mg daily and bed rest. After five days of hospitalization, the patient discharged with no vaginal bleeding. Screening ultrasound at the 20th week of gestation showed no fetal anomaly. The patient managed on an outpatient basis until 38th gestational week and there was no intrauterine growth restriction and the amniotic fluid index was within reference range. During this period the patient did not have any obstetrical problem, ultrasound examination revealed that there was a gradual decrease in the size of subchorionic hematoma and at the 32th week of gestation, the subchorionic hematoma disappeared. At the 38th week of the gestation, spontaneous uterine contractions began and successful vaginal delivery was performed without any complication. A male infant weighing 2900 g was delivered with Apgar scores of nine and ten at one and five minutes, respectively. During macroscopic

examination of the placenta and membranes, there was an area of subchorionic hematoma 5x5 cm in size. On microscopic examination, there was areas of focal infarction, intervillous hemorrhage, and fibrotic mature villi (Figure 2, 3).

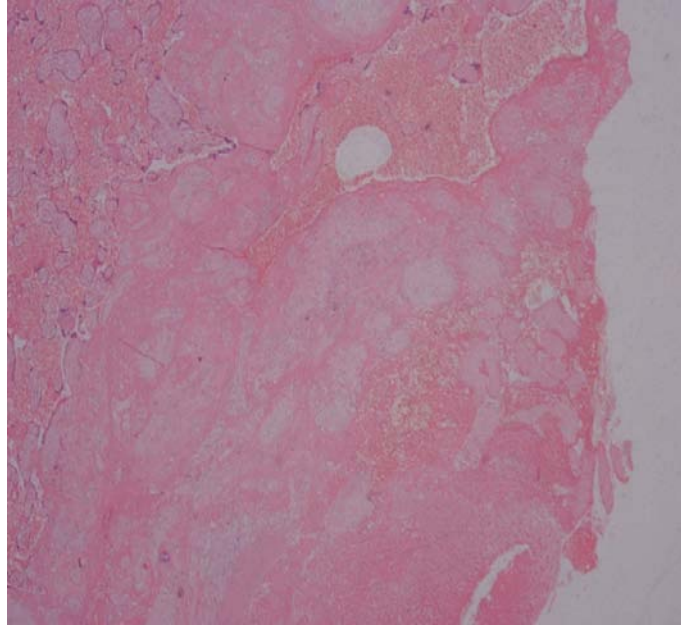


Figure 2. Representative microscopic picture of placental infarct (x4).

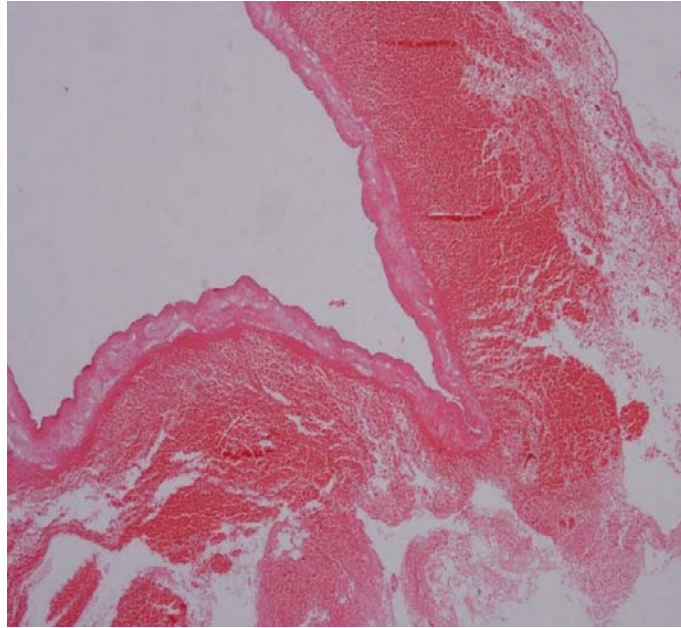


Figure 3. Representative microscopic picture of subchorionic hematoma (x4).

Discussion

Although hematomas vary significantly in shape and size, most follow the arch of the uterus and form a crescent-shaped fluid collection or a heterogeneous-appearing space in a retroplacental or subchorionic area between the chorion and the myometrium [3, 4]. The incidence of subchorionic hemorrhage is thought to be about 3% to 48% in the general population during the first trimester [5, 6]. The largest series describing subchorionic hematomas involving the examination of 19,000 placentas concluded that the incidence of massive subchorionic hematomas was 1 in 2,000 pregnancies [7]. Numerous studies have examined the effect of the presence of a subchorionic hemorrhage on perinatal outcome.

The presence of a subchorionic hematoma in the first and early second trimester increase the risk of abnormal perinatal outcome including miscarriage, stillbirth, abruptio placenta, and preterm labor; however, the size of the hematoma does not seem to be significant [3]. Second trimester bleeding is under-recognized and is worthy of a more lengthy evaluation owing to a higher rate of fetal loss and maternal morbidity than earlier presentations of vaginal bleeding [8].

The clinical picture resulting from the placental hematomas is extremely variable, with several factors probably coming into play including the site and size of hematoma, gestational age, chronicity of bleeding and underlying disease process [9]. Although there is no agreement in the clinical management of such patients, careful surveillance of pregnancy is needed. In our case, a good perinatal outcome was obtained with careful surveillance of maternal and fetal condition.

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