

Heterotopic Pregnancy – urgent ultrasonographic diagnosis Gravidez heterotópica – diagnóstico ecográfico de urgência

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Abstract

Heterotopic pregnancy refers to the coexistence of intrauterine and extrauterine gestations, which can occur in two or more implantation sites. Although still a rare event, its incidence is increasing because of the use of assisted reproductive techniques (ART). The diagnosis is often delayed, which can lead to serious complications. We present a case of heterotopic pregnancy diagnosed in the emergency room in a pregnant woman with hypovolemic shock with the intrauterine pregnancy reaching term.

Keywords: Heterotopic pregnancy; Reproductive techniques; Hemorrhagic shock

Heterotopic pregnancy is defined as the presence of simultaneous pregnancies at two different sites of implantation. The most common place of implantation is the ampulla (70%), followed by the isthmus (12%), the fimbria (11,1%), the ovary (3,2%), the interstitium (2,4%) and the abdomen (1,3%)¹. It is often a serious emergency and can become a life-threatening situation in cases of delayed diagnosis. When occur spontaneously, its incidence is estimated to be 1 in 30 000 pregnancies. The use of assisted reproductive techniques (ART) has significantly increased the occurrence of heterotopic pregnancy with estimated rates near 1%². Several factors contribute to this increased incidence such as an increased incidence of pelvic inflammatory disease, endometriosis, tubal surgery, intrauterine device use and ART procedures with superovulation/ transfer of two or more embryos³.

The most frequent symptoms may mimic those of threatened abortion or ectopic pregnancy, such as abdominal pain, adnexal mass and hypovolemic shock. However, vaginal bleeding that can occur in ectopic pregnancy is unusual to be observed in heterotopic pregnancy due to intact endometrium⁴. Because of the lack of clinical symptoms, the diagnosis of heterotopic pregnancy can be delayed and lead to major complica-

tions because of the rupture of the ectopic pregnancy. Vaginal ultrasound is the gold standard for diagnosis, but at early gestational ages an existing intrauterine pregnancy may lead to a miss diagnosis of an heterotopic pregnancy.

We present a case of a 29-year-old primigravida referred to our emergency with severe abdominal pain and vomiting. She had been diagnosed with primary infertility and the current pregnancy occurred after an Intracytoplasmatic Sperm Injection procedure; two embryos were transferred. An ultrasound was performed during her first medical consultation showing an intrauterine gestational sac with a crown to rump length of 6⁺¹ weeks and with cardiac activity; no other findings were documented.

On admission, vital signs were stable and gynaecologic examination was normal without vaginal bleeding. Transvaginal ultrasound revealed two gestational sacs containing two viable embryos – one inside the uterine cavity and other in the right Fallopian tube (Figure 1), both with a crown-rump length of 7 weeks.

Immediately after ultrasound examination, patient presented stronger pain and syncope. Because of hemodynamic instability, we performed an emergent laparotomy under general anesthesia, which revealed a large hemoperitoneum and rupture of the right Fallopian tube that was excised. The anatomopathological examination confirmed an ectopic pregnancy. Intrauterine pregnancy progressed uneventfully till 40 weeks' gesta-

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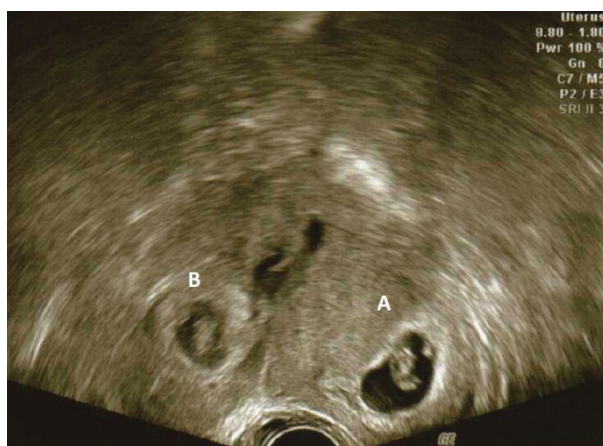


FIGURE 1. Intrauterine pregnancy (A) and ectopic pregnancy (B)

tion when a vaginal delivery occurred.

Since heterotopic pregnancy is a rare event, no treatment standard recommendations exist. Literature advises to perform laparotomy when the patient is hemodynamically unstable or large hemoperitoneum is suspicious. Medical options involve local injection of methotrexate or potassium chloride⁵ but surgical treatment remains the most common approach. In stable patients, laparoscopy can be a safe and successful option².

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