Middle East Fertility Society Journal (2016) xxx, xxx–xxx

Middle East Fertility Society

Middle East Fertility Society Journal

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A rare presentation of ruptured interstitial ectopic pregnancy with broad ligament hematoma: A case report

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Received 22 April 2016; revised 5 June 2016; accepted 10 July 2016

KEYWORDS

Rupture ectopic pregnancy;
Interstitial pregnancy;
Broad ligament hematoma;
Maternal morbidity

Abstract Ectopic pregnancy is a major cause of maternal morbidity and mortality in the first trimester. Interstitial type is the most dangerous variety with a high risk of life-threatening internal hemorrhage. Obstetricians need a high index of suspicion to diagnose such rare type. We are reporting a rare case of ruptured interstitial ectopic pregnancy presented with a large broad ligament hematoma early in the first trimester. A 25-year-old woman was presented with gradual onset of increasing abdominal pain after 6 weeks of amenorrhea. She had a positive urinary pregnancy test. Abdominal ultrasound revealed bulky empty uterus and ill-defined mass at the right side of the uterus. On exploration, incision and drainage of broad ligament hematoma were performed in addition to right salpingectomy. Interstitial ectopic pregnancy represents a diagnostic and therapeutic challenge and frequently constitutes an obstetrical emergency. Its rupture early in the first trimester should be expected. Early diagnosis and proper management are the most important issues to avoid its catastrophic consequences.

1. Introduction

Ectopic pregnancy (EP), a term that entails implantation of the fertilized ovum outside the uterine body, is considered the leading cause of maternal mortality in the first trimester (1). Ampullary, isthmic, interstitial and cervical are different types of EP, but most of ectopic pregnancies occur in the ampullary region of the fallopian tube and less commonly in other sites (1). Among ectopic pregnancies, the interstitial type is the most hazardous, as it is associated with maternal mortality up to 2–2.5% which is the highest compared with other types (2).

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Peer review under responsibility of Middle East Fertility Society.

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http://dx.doi.org/10.1016/j.mefs.2016.07.003
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Please cite this article in press as: Abbas AM et al. A rare presentation of ruptured interstitial ectopic pregnancy with broad ligament hematoma: A case report, Middle East Fertil Soc J (2016), http://dx.doi.org/10.1016/j.mefs.2016.07.003

Symptoms and complications of interstitial EP commonly occur after 12 weeks of gestation in contrast to other types which become manifested earlier (3). Medical therapy, conservative and radical surgery are the management options for dealing with interstitial ectopic pregnancy, with no role for expectant management (4). Inherit difficulty in diagnosis and treatment greatly affects the catastrophic outcomes of interstitial EP (5). In spite of advances in diagnostic modalities, rupture of interstitial EP is still encountered from time to time.

Here, we are reporting an extraordinary case of rupture interstitial EP at 6 weeks of gestation with an uncommon presentation of large broad ligament hematoma.

2. Case history

A 25-year-old woman, gravida 2 para 1 + 0, presented to the emergency department of Assiut Women Health Hospital, Egypt, complaining of gradual onset of increasing abdominal pain and vaginal spotting of 2 days duration following 6 weeks of amenorrhea. A urinary pregnancy test was positive. Her first pregnancy ended by normal vaginal delivery. She had no past history of contraception use or previous uterine surgery.

On general examination, the patient was conscious, but she was uncomfortable and irritable. Her blood pressure was 100/60 mmHg, pulse 100 beats/min, and she was afebrile. An abdominal examination revealed positive guarding and tenderness in the right iliac fossa. Pelvic examination revealed enlarged tender uterus pushed to the left side, positive cervical motion tenderness, ill-defined mass in the right fornix, closed cervix and the examining finger was stained with blood. Transvaginal ultrasound (TVS) revealed empty uterus with thickened endometrium and smooth outline. There was an ill-defined mass on the right side of the uterus 7 × 7 cm suggestive of pelvic hematoma (Fig. 1). No free fluid collection in Douglas pouch. Hematological examination showed hemoglobin level of 8.8 gm/dl and white blood cell count of 12,500/mm^3.

In view of clinical and ultrasonographic findings, rupture EP was highly suspected. Presence of such large sized mass discourages the surgeons from performing laparoscopy, so abdominal exploration was done after counseling the patient and taking consent for the possible need for salpingectomy.

Laparotomy was done through a Pfannenstiel's incision under general anesthesia. On entering the abdomen, no free blood collection was found, but there was a large broad ligament hematoma nearly 10 × 10 cm on the right side, extending up to the lateral pelvic wall, pushing the uterus to the left side. The right cornu showed small defect with minimal external bleeding. The right fallopian tube and round ligament were severely congested (Fig. 2). The right ovary and the contralateral tube and ovary were normal.

Incision of the broad ligament through its anterior surface was done followed by evacuation of the collected blood and drainage of the hematoma. The right tube was nearly avulsed from the uterine wall as a result of the ruptured interstitial part, so right salpingectomy with repair of the defect was performed. Peritoneal wash with normal saline and intraperitoneal drain was left then the abdomen was closed with layers. The patient received one liter of whole cross-matched blood during the operation. Urethral Foley's catheter was fixed and 2 gm intravenous 3rd generation cephalosporin was given.

The patient had a smooth recovery from anesthesia then she was transferred to the postoperative care room. She resumed bowel functions ten hours after surgery and defecated next morning. Postoperative hemoglobin level was 10.4 gm/dl and the intraperitoneal drain was removed after 24 h.

Postoperative course was uncomplicated and she was discharged on the 4th postoperative day after advising her that cesarean section is the preferred mode of delivery in subsequent pregnancies to avoid the risk of uterine rupture.

3. Discussion

Interstitial ectopic pregnancy is a pregnancy in which the fertilized ovum is implanted in the intrauterine portion of the

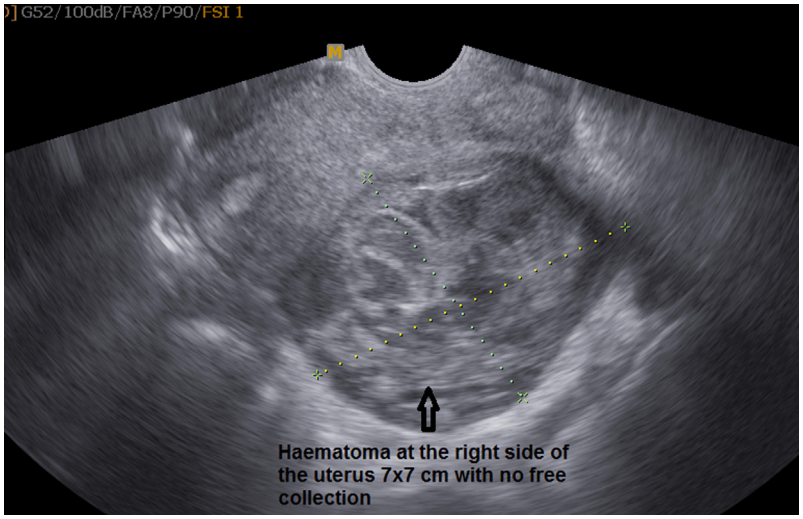

Figure 1 Transvaginal Ultrasound shows empty uterus, no free collection and a hematoma measures 7 × 7 cm at the right side of the uterus.

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