RUPTURED ECTOPIC PREGNANCY IN RUDIMENTARY HORN OF THE UTERUS AT 15 WEEKS

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Abstract

An ectopic pregnancy is a gestation that implants outside of the endometrial cavity (fallopian tubes, ovaries and abdominal cavity) or abnormal position within the uterus (cornua, cervix, rudimentary horn), it represents a serious hazard to woman's health and her reproductive potential, it occurs in 1 of every 80 spontaneously conceived pregnancy. Rudimentary horn is one of the rarest congenital uterine anomalies and consists of a relatively normal appearing uterus on one side with a rudimentary horn on the other side with majority of cases being non communicating. Pregnancy in rudimentary horn is rare and represents a form of ectopic gestation, despite recent advances in ultrasound, the diagnosis remains elusive with confirmatory diagnosis being made at laparotomy, when rupture occurs, manifesting commonly as acute abdominal pain with high risk of maternal mortality. A 27 years old gravida 2 para 1 by normal vaginal delivery, presented at 15 weeks of gestation with severe abdominal pain for the last 6 hours, by examination she was in shock state, urgent exploratory laparotomy revealed ruptured rudimentary horn of the uterus with haemoperitonium and fetus in the abdominal cavity. Excision of accessory horn was done which was non-communicating.

Introduction

Unicornuate uterus with rudimentary horn results from arrested development of one of the two Mullerian ducts. This uterine anomaly covers a wide range of anatomical variability and is divided into four subgroups according to the American Fertility Society classification of Mullerian anomalies:-Ila rudimentary horn with cavity communicating to unicornuate uterus, IIb with cavity non-communicating. Ile with no cavity IId with no horn (1). Prevalence of unicornuate uterus with rudimentary horn is very rare 1/100000. It is usually associated with obstetrical complications including miscarriage, ectopic pregnancy, uterine rupture, preterm labour, malpresentations. Renal anomaly is found in 36% of cases(2). The pregnancy in a rudimentary horn is rare, reported literature are between 1/76000 and 1/140000 pregnancies and represent a form of ectopic gestation (3).

Due to variable muscular constitute of the wall of the rudimentary horn, pregnancy can be accommodated until late in pregnancy (usually in the second trimester) and this pregnancy commonly presents with abdominal pain which may occur before or after rupture (4). For diagnosis, the magnetic resonance imaging provides a considerably improved and accurate means of diagnosis and identifying Mullerian anomalies (5), also three dimensional sonography offers advantages over two-dimensional scanning as it provides fine anatomical details useful for preoperative planning but confirmation of diagnosis is usually surgical at laparascopy or laparatomy (6). Treatment is the excision of the rudimentary horn, although hemi or total hysterectomy may be necessary to save the life of woman, excision is usually carried out at laparotomy but can be successfully carried out laparoscopically in unruptured cases, the benefits of laparoscopic surgery are decreased adhesion formation, smaller incision, reduced postoperative pain and short hospital stay. Surgical expertise, experience and availability of proper instrumentation must also be considered (7,8)
CASE REPORT:

27 years old woman from Mahasen village, Kirkuk, married since 1.5 years, G2,P1, normal vaginal delivery before 7 months, not lactating, her cycles were regular, according to her last menstrual period (LMP) she was pregnant for 15 weeks, no antenatal care, presented to emergency unit as sudden attack of severe abdominal pain, vomiting (3 times), slight vaginal bleeding for the last 6 hours and fainting attack twice, gynaecological consultation was done for the patient, she was pale, PR 120/min, regular, blood pressure could not be detected, abdominal examination revealed generalized rigidity and tenderness, fundal height could not be detected, bimanual pelvic examination revealed soft closed cervix with no vaginal bleeding. Uterus size could not be made out, there was no time for performing investigations for the patient and urgent laparatomy was decided after arranging 5 units of cross-matched blood, a lower midline incision was done, abdominal cavity was full of blood and clots (3500 cc of blood was aspirated), ruptured right rudimentary horn was found with a female fetus in the abdominal cavity, the uterus was enlarged with normal left tube and ovary and right rudimentary horn ruptured, right tube and ovary were apparently normal, excision of ruptured right rudimentary horn was done, which was non communicating to the uterine cavity, the patient received 6 pints blood during the operation and 2 pints postoperative which was smooth, ultrasound examination revealed no renal abnormality, picture of histopathology confirmed the diagnosis of rudimentary horn and she was discharged home at 10th postoperative day, later intravenous pyelogram was done for the patient and was normal.

Discussion

Rupture of rudimentary horn of the uterus is one of the remote causes of acute abdomen with pregnancy. However missing the diagnosis can lead to fatal complications while early detection can save the life of the patient, although early diagnosis of the ruptured rudimentary horn pregnancy remains challenging, few cases of early (first trimester) prerupture sonographic diagnosis of this condition have been reported, magnetic resonance imaging has proven to be more useful, non invasive tool for the diagnosis of Mullerian abnormalities, but was not feasible in this case because of acute presentation requiring early exploratory laparatomy.

In this rare form of ectopic pregnancy implantation occurs in the cavity of rudimentary horn of the uterus, the horn in this case was non communicating with the rest of uterine cavity, it must be assumed that sperm ascend through the other horn of uterus and get fertilized with an ovum in the peritoneal cavity. This, then enters the tube of rudimentary horn.

Several cases of ruptured pregnancy in the rudimentary horn of the uterus have been reported since the first case which was described by Mauriceau in 1669 such as Johansen (12), Mura et al (13), Seoud et al (14), Col JK Goel (15), Tufail A (16), Dhar (17). While A Elsaegh (18) reported rupture of pregnancy in communicating horn at 34 weeks. The majority of reported cases have occurred in the noncommunicating rudimentary horn of the uterus. In this case the ovaries and tubes were normal, the entirely separate origin of the ovaries from the gonadal ridges explains the infrequent association of uterovaginal anomalies with ovarian anomalies (19).

The reported incidence of major renal anomalies associated with rudimentary horn is 36%, the most common anomaly is renal agenesis ipsilateral to noncommunicating rudimentary horn of the uterus, with ipsilateral pelvic kidney the second most common reported anomaly (2,20). In this case no associated urinary anomaly was seen. Operative laparascopy is alternative treatment for the symptomatic noncommunicating rudimentary horn (5) but this was not done in this case because of acute presentation of the patient with rupture rudimentary horn of the uterus and haemoperitonium.

References

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