

Case Report

Combined Intrauterine and Tubal Ectopic PregnancyAshraf Talat Abdul-Fattah¹, Bakry H Tanoun², Ali Ezzat Shebl³¹Department of Obstetrics and Gynecology, Faculty of Medicine, Zagazig University, Egypt & Maternity Hospital, Kuwait²Department of General Surgery, Al-Jahra Hospital, Kuwait³Department of Obstetrics and Gynecology, Al-Jahra Hospital, Kuwait

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ABSTRACT

A rare case of combined intrauterine and undisturbed tubal ectopic pregnancy (heterotopic pregnancy) in a young nulliparous newly married female is described.

The possibility of heterotopic pregnancy should be considered in cases of acute abdomen with pregnancy, even in the absence of a predisposing factor.

KEYWORDS: acute abdomen, appendicitis, combined pregnancy

INTRODUCTION

Ectopic pregnancy is defined as the implantation of an embryo outside the normal uterine cavity. The term heterotopic pregnancy refers to coexistence of intrauterine and ectopic pregnancy. Reece and associates^[1] reviewed the literature from 1966 to 1979 and found 66 cases of combined (Heterotopic) pregnancy. More recently, Felbo & Fenger^[2] collected another 523 reported cases, bringing the total reported cases in the recent literature to 589. The incidence of combined intrauterine and ectopic pregnancy (heterotopic pregnancy) is 1/30,000 pregnancies. However, the evolving increased rate of ectopic pregnancy is accompanied by a concomitant rise in the incidence of combined pregnancy reaching 1/15,000 pregnancies^[3]. Ovulation inducing agents have also contributed to such an increase as shown by Berger & Taylor who reported a rate of 1/100 stimulated patients^[4]. Although the precise cause of combined pregnancy is frequently obscure, most of the factors are the same as those associated with ectopic pregnancy^[3]. The combination of abdominal pain, adnexal mass, peritoneal irritation and an enlarged uterus are the major clinical features. Additional findings include the presence of two corpora lutea found at the time of laparotomy or laparoscopy, hemoperitoneum and acute abdominal pain following the termination of intrauterine pregnancy or the presence of an enlarged uterus with amenorrhea after excision of an ectopic pregnancy. Continued enlargement of the uterus and a positive pregnancy test confirms the diagnosis. In most cases however, the diagnosis is not without difficulty^[3]. Unless the patient is being followed up by serial ultrasound examinations, as in assisted reproduction programs, the diagnosis is

usually late^[5]. Interpretation of a right adnexal mass with pregnancy essentially includes the appendix. Among the sequelae of untreated acute appendicitis are appendiceal phlegmona, abscess and generalized peritonitis. A phlegmona is a mass produced by inflamed matted intestine and omentum with little or no collection of pus^[6].

CASE REPORT

A 24-year-old non-Kuwaiti housewife attended the reception room complaining of sudden severe lower abdominal pain with increasing intensity for one day. The patient was in her 12th week of gestation. There was no associated vaginal bleeding, low-back pain, nausea, vomiting, dysuria, loin pain, fever, or any other symptoms of relevance. Family and past history were not relevant.

On examination, her vital signs were normal. There was mild tenderness with rebound at the right lower quadrant, together with guarding all over the abdomen. There were no palpable masses or shifting dullness. She refused a per vaginal (PV) examination. The patient was admitted to the gynecology ward for evaluation. Investigations done revealed:

Hb: 10.9 g/dL; WBC: 7.8 x 10⁹/L with normal differential count pattern; Hct: 32.4 %; platelets count: 285 x 10⁹/L; blood group B Rh (+ve); urine routine, random blood sugar, liver and renal function and serum electrolytes were all within normal range. Repeated complete blood count (CBC) done over the next two days did not show significant changes from initial values. Gynecologic ultrasonography exhibited an alive intrauterine gestation; gestational age according to the measured CRL (crown-rump length) was 11

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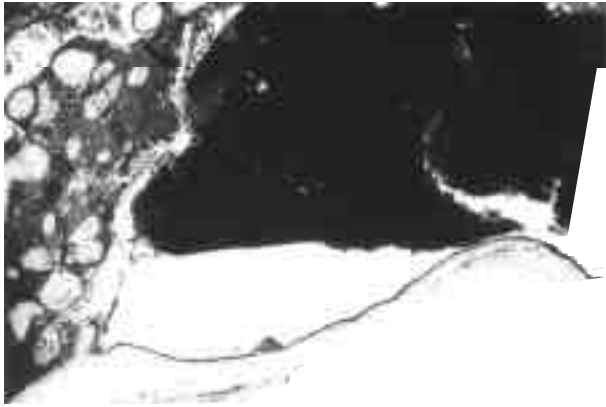


Fig. 1: Low-power magnification of the right fallopian tube showing a dilated tube with bloody material and embryonic sac



Fig. 2: High power magnification of the right fallopian tube showing chorionic villi invading the tubal wall confirming tubal ectopic pregnancy

weeks \pm 2 days. The uterus was pushed to the left side by a right adnexal mixed-echogenic mass measuring 45 x 33 mm; scanty fluid was spotted in the pouch of Douglas. Referring the patient for a surgical opinion was not of much help in making a definite diagnosis. The patient was put under observation for 24 hours during which no major clinical or laboratory changes were encountered. However, ultrasonographic assessment by a radiologist elaborated the adnexal mass in a more impressive report as an appendicular mass. Finally, a decision was taken to perform a laparotomy by the surgical team involved. Under general anesthesia, the abdomen was opened through a Lantz incision. The appendix was found to be normal with no surrounding adhesions. Minimal serosanguinous free fluid in the peritoneum and a right adnexal mass were detected. Initial inspection by the gynecologist involved in the team revealed the mass to be located in the ampullary region of the right tube with normal ipsilateral ovary, giving a spot diagnosis of co-existent undisturbed right tubal ectopic pregnancy. A transverse suprapubic incision was performed for a better approach and assessment. The left tube and ovary were normal. The 12 weeks gestation size uterus was pushed to the left side by the right adnexal mass. The mass was dark blue, with a regular outline, oblong in shape, 5 x 6 cm in size and occupying the ampullary region of the right tube with marked congestion over the mass and the surrounding tissues. Right salpingectomy was done since there was no way to preserve the tube. Cut section of the mass revealed thick wall with an ill-defined homogenous knobby part at one pole of its interior and the rest of the cavity was filled with brownish fluid. Specimens were sent for histopathological examination. Hemostasis was secured. Appendectomy was done and incisions were closed. A prophylactic antibiotic (penicillin) was given. The patient experienced a smooth recovery

and convalescence. A condensed follow up program was set up for the patient on an outpatient based fortnightly visit. The fetus showed normal growth pattern as depicted clinically and by ultrasonography. Pregnancy was uneventful until 21st February 2000 when, at 38 weeks gestation, it ended by spontaneous vaginal delivery of an alive boy, 2.880 kg in weight with Apgar scores of 8/9 at 1 and 5 minutes respectively. The baby showed normal morphologic features, and had a normal neonatal period.

DISCUSSION

It was extremely difficult to diagnose combined intrauterine and ectopic pregnancy in this case before laparotomy. The rarity of the condition, absence of any of the known predisposing factors, clinical stability of the condition, and the ultrasonographic findings suggestive of an appendicular mass were all deceiving factors that delayed the diagnosis. The patient was categorized as acute abdomen with pregnancy. She had a viable intrauterine 12 weeks gestation as well as an adjacent mass in the right iliac fossa as revealed by ultrasonography. This raised the possibility of appendiceal phlegmona. Appendicitis is the most common acute surgical condition in pregnancy and it can be encountered during every trimester as well as during puerperium. Its frequency is the same as in the non-pregnant population, roughly about 1/2000^[6]. This frequency is much higher than that of combined intrauterine and ectopic pregnancy (1/15,000)^[3]. Considering the masking effect of pregnancy over the clinical and laboratory findings among patients of appendicitis, giving a much less florid picture than in the non-pregnant state, a preliminary diagnosis of appendicular mass seemed more appropriate. It is quite clear that delay in the diagnosis occurred in view of the obscure presentation, the presence of intact intrauterine gestation, as well as lack of specific

findings (clinically and laboratory wise) differentiating an appendicular mass from an undisturbed coincidental ectopic pregnancy. Color Doppler ultrasonography could be of diagnostic importance as it can help in differentiating ectopic pregnancy from other adnexal masses with a high index of specificity as compared to conventional ultrasound real-time scans^[7]. Apart from the false positive and negative results of Doppler, the individual variations of the examiner, and conflicts about its feasibility in such cases, Doppler is not an available tool in many centers. Unfortunately we didn't have such facility at the time our patient was managed.

One of the major problems in the management of combined pregnancy is the time of termination of the ectopic component especially if both fetuses are alive and have reached the stage of mid pregnancy. Recent aggressive medical management has reduced maternal mortality to a rate of 0.98%^[3]. Salpingostomy, salpingotomy, or salpingectomy (laparoscopic or via laparotomy) are all surgical options for management. Conservative surgery of the tube depends on the timing of diagnosis, size of the mass, the condition of the ipsilateral and contralateral tubes, and parity of the patient. During surgery, minimal handling of the uterus is essential to reduce reactionary undesired uterine contractions. Bleeding from the uterine vessels might produce hypotension and reduce blood flow to the intrauterine fetus causing acute intrauterine asphyxia. Aggressive analgesia and sedation is of utmost importance in the immediate post-operative period to minimize the risk of miscarriage^[7]. Systemic medical treatment is not an option in such cases if the intrauterine pregnancy is to be preserved. However, surgically administered medical treatment (using laparoscopy or ultrasonography) selectively targeting the ectopic component is described in the literature. Intracardiac KCl injection, or concentrated glucose solution injected locally into the ectopic component are examples. However, such modalities of treatment carries the risk of persistent trophoblastic

tissue that might continue tubal erosion ending in acute internal hemorrhage^[3]. Our main concern during the planned frequent antenatal care visits was to minimize any risk that would jeopardize the living intrauterine fetus. Considering the recorded fetal mortality rate in such cases (20%-70%)^[1], we were quite satisfied with the outcome of this pregnancy. Reece *et al* in their review of the world's literature, found little information on the growth and development of infants who survived the neonatal period. However, the incidence of congenital malformations and mental retardation is increased probably due to hypotension created by the ectopic gestation^[1].

In conclusion, the possibility of combined intrauterine and ectopic pregnancy should always be considered in the differential diagnosis of acute abdomen with pregnancy. A high index of suspicion and early intervention would decrease case fatality and morbidity.

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