

Case Report

Secondary abdominal pregnancy: a case report

Ezhil Arasi Nagamuthu, Syeda Sumaiya Fatima*

Department of Pathology, Osmania Medical College, Hyderabad - 500036, Andhra Pradesh, India

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***Correspondence:**

Dr. Syeda Sumaiya Fatima,

E-mail: drsuma4u@yahoo.com

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ABSTRACT

An ectopic pregnancy is a condition in which a fertilized egg settles and grows in any location other than the inner lining of the uterus. The vast majority of ectopic pregnancies is so-called tubal pregnancies and occurs in the Fallopian tube (98%); however, they can occur in other locations, such as the ovary, cervix, and abdominal cavity. Abdominal pregnancies represent just about 1% of ectopic pregnancies. The incidence of abdominal pregnancy ranges between 1:10000 pregnancies and 1:30000 pregnancies. Maternal mortality and morbidity are also very high especially if the condition is not diagnosed and managed appropriately. Abdominal pregnancy at term with a healthy viable fetus is therefore an extremely rare condition hence we present a case of abdominal pregnancy for publication.

Keywords: Abdominal pregnancy, Placenta, Amenorrhea

INTRODUCTION

Ectopic pregnancy is the result of a flaw in human reproductive physiology that allows the conceptus to implant and mature outside the endometrial cavity.³ Abdominal pregnancy, with a diagnosis of one per 10000 births, is an extremely rare and serious form of extra uterine gestation. Abdominal pregnancies account for almost 1% of ectopic pregnancies. It has reported incidence of one in 2200 to one in 10,200 of all pregnancies. The gestational sac is implanted outside the uterus, ovaries, and fallopian tubes. The maternal mortality rate can be as high as 20%. This is primarily because of the risk of massive hemorrhage from partial or total placental separation. The placenta can be attached to the uterine wall, bowel, mesentery, liver, spleen, bladder and ligaments. It can detach at any time during pregnancy leading to torrential blood loss.⁴ Abdominal pregnancy is more common in developing countries, probably because of the high frequency of pelvic inflammatory disease in these areas .

It is classified as primary or secondary. Secondary abdominal pregnancy almost always follows early rupture of a tubal ectopic pregnancy into the peritoneal cavity with the incidence being 1 in 10000 live births. It usually occurs following an extra uterine tubal or ovarian pregnancy that ruptures and gets re-implanted within the abdomen. The placenta sits on the intra-abdominal organs generally the bowel or mesentery, or the peritoneum, and has sufficient blood supply.⁵ The diagnosis of abdominal pregnancy was confirmed according to classic Spiegelberg's anatomic and histologic criteria.⁶

Sonography is considered the front-line diagnostic imaging method, with magnetic resonance imaging (MRI) serving as an adjunct in cases when sonography is equivocal and in cases when the delineation of anatomic relationships may alter the surgical approach. We report the rare diagnosis of secondary abdominal pregnancy in an unbooked case at 20 weeks.

CASE REPORT

A 30 year old female patient gravida 4, para 3, live 3 with history of 4 - 5 months amenorrhea complains of severe pain abdomen, associated with nausea and vomiting. She was an unbooked case without any previous antenatal checkups. Her previous pregnancies were all full term normal deliveries at home. Past history is insignificant except with a history of fall 8 days back.

On examination there was pallor but her vitals were stable. Per abdomen uterus was 16 - 20 weeks size with fetal parts easily palpable. On investigating her hemoglobin was 5.5 grams%, blood group being AB positive and Hbs Ag positive,

Ultrasound examination revealed: Right ectopic pregnancy (? Cornual / ? Tubal), with minimal rupture, bicornuate uterus, pregnancy in rudimentary horn, with suggestive of chronic hematoma (Figure 1a & 1b).

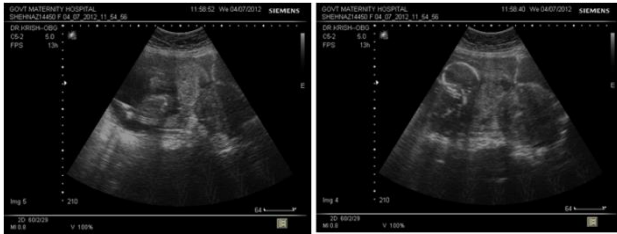


Figure 1a & 1b: Ultra sonographic pictures showing fetus, placenta with scanty amniotic fluid in between and uterine cavity.

Impression on ultrasound was a live intra-abdominal pregnancy of 17 weeks gestational age, placenta attached to the uterus - Left posterosuperior aspect.

So a clinical diagnosis of secondary abdominal pregnancy with large hematoma with low lying placenta was made .Suggesting a primary tubal or ovarian pregnancy progressed to secondary abdominal pregnancy.

Total hysterectomy with partial omentectomy was done. The whole specimen was received at department of pathology, modern government Maternity hospital / Osmania medical college. Andhra Pradesh, India.

Gross findings were uterus with cervix along with fetus of 16 weeks gestational age with sac and part of omentum. Uterus measured 12x7x3.5 cm, on cut section endometrium measured 2 mm and myometrium 1.5 cm. Gestational sac with fetus measured 16x9 cm, with a rupture site on posterior aspect of gestational sac. Ovary measured 5.5x3.5 cms with tube measuring 3.5 cm. Cut section of ovary showed haemorrhagic and necrotic areas, cut section of tube showed grey white areas.

Received omentum measuring 24x5x7 cm. Cut section was nil remarkable with only few grey brown congested

areas. Placenta measured 30 cm and umbilical cord measuring 25 cm in length (Figure 2).



Figure 2: Showing placenta cut section of uterus and fetus.

The specimens were then fixed in 10% formalin for the histopathological examination. After gross analysis representative sections were given for tissue processing. Sections were processed routinely with paraffin embedding and stained with haematoxylin and eosin.

Sections from endometrium, myometrium and fallopian tube are unremarkable.

Section from ovary showed edematous ovarian stroma and corpora albicantes with hemorrhage (Figure 3).

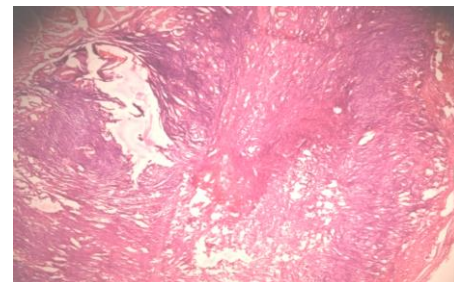


Figure 3: Showing ovarian stroma and corpora albicantes with hemorrhage.

Section from gestational sac wall showing ovarian tissue intervening areas of hemorrhage, necrosis and trophoblastic villi (Figure 4 and 5).

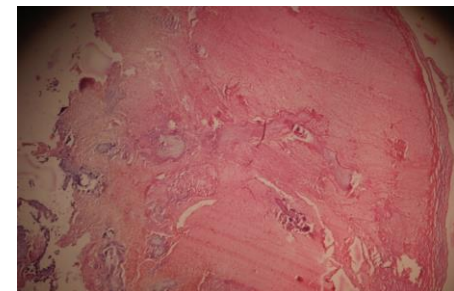


Figure 4: Showing lining epithelium separated from trophoblastic villi by areas of hemorrhage and necrosis.

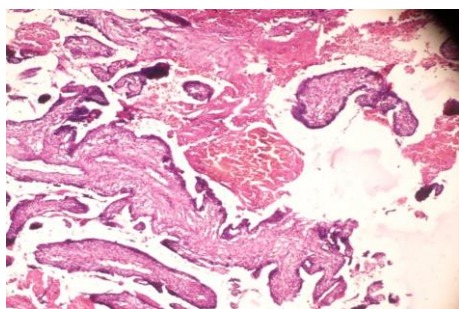


Figure 5: Showing trophoblastic villi with necrosis and haemorrhage

DISCUSSION

Abdominal pregnancy can be classified as being primary or secondary. Primary occurs when the fertilized ovum implants directly into the peritoneal cavity. Secondary occurs when the fertilized ovum first implants in the fallopian tube or ovary or uterus and then due to fimbrial abortion or rupture of the fallopian tube or rupture of ovary or uterus the fetus comes to live and develop in the mother's abdominal cavity. Our case was a primary ovarian ectopic gestation which ruptured and developed subsequently as secondary abdominal pregnancy.

Ovarian pregnancy refers to an ectopic pregnancy that is located in the ovary. Typically the egg cell is not released or picked-up at ovulation, but fertilized within the ovary where the pregnancy implants.² Ovarian pregnancies are rare, only about 0.15-3% of ectopics occur in the ovary. The incidence has been reported to be about 1:3000 to 1:7000 deliveries. It may appear as a challenging diagnostic case.⁸ It is especially so because of its rare incidence, Thus, it is reasonable to finalize the diagnosis of primary ovarian gestation according to the 4 classic Spiegelberg's anatomic and histologic criteria, which are as follows: (1) the fallopian tubes should be intact and separate from the ovary. (2) The gestation should appear in the usual ovarian pelvic location. (3) The gestation should be connected to the uterus by the ovarian ligament. (4) Ovarian tissue must be present in the histologic specimen of the gestation sac walls.⁶ Each of those 4 criteria was fulfilled in our case., the fallopian tubes showed normal anatomy, and the gestational sac was found inside the left ovary, which was normally connected to the uterus by the left ovarian ligament. The histologic study revealed ovarian tissue in the gestational sac walls.

Ultrasound examination is the usual diagnostic procedure of choice. The diagnosis of primary ovarian pregnancy is

usually histopathological. Early detection of an ovarian pregnancy permits laparoscopic surgery and excision of the ectopic pregnancy in reducing the associated morbidity and mortality.

To conclude any presentation of a pregnant woman with an unusual clinical picture that is persistent or recurrent abdominal pain along with painful fetal movements must ring the bell for the clinician for a rare possibility of abdominal pregnancy.

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REFERENCES

1. Ectopic pregnancy, 2013- MedicineNet.com. Available at www.medicinenet.com.
2. Baffoe P, Fofie C, Gandau BN. Term abdominal pregnancy with healthy newborn: a case report. *Ghana Med J.* 2011 Jun;45(2):81-3.
3. Vicken P. Sepilian, Michel E. Rivlin. Ectopic Pregnancy, 2014. Available at: <http://emedicine.medscape.com/article/2041923-overview>.
4. Recep Yildizhan, Ali Kolusari, Fulya Adali, Ertan Adali1, Mertihan Kurdoglu, Cagdas Ozgokce, Numan Cim. Primary abdominal ectopic pregnancy: a case report. *Cases J.* 2009;2:8485.
5. Pratiksha Gupta, Alka Sehgal, Anju Huria, Reeti Mehra. Secondary abdominal pregnancy and its associated diagnostic and operative dilemma: three case reports. *J Med Case Reports* 2009;3:7382.
6. Alan H. DeCherney, William O. Agel. Ectopic pregnancy, 2013. Available at: <https://www.glowm.com/resources/glowm/cd/pages/v1/v1c069.html>.
7. Gwinyai Masukume, Elton Sengurayi, Alfred Muchara, Emmanuel Mucheni, Wedu Ndebele, Solwayo Ngwenya. Full-term abdominal extrauterine pregnancy complicated by post-operative ascites with successful outcome: a case report. *J Med Case Rep.* 2013 Jan 9;7(1):10.
8. Wikipedia. Ovarian pregnancy, 2013. Available at: http://en.wikipedia.org/wiki/Ovarian_pregnancy. Accessed 28 December 2013.

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