

Ovarian Pregnancy in an HIV Positive Patient: Case Report

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Abstract

A 32-year-old single nulligravid female presented with a 7-month history of fever, weight loss, and cough, a 6-month history of irregular menstrual bleeding and a 4-month history of lower abdominal pain and brownish vaginal discharge. Investigations revealed an ovarian pregnancy, Koch's disease and seropositivity for HIV-1 and HIV-2. She had laparotomy and right salpingo-oophorectomy. She was placed on antituberculous and antiretroviral therapy and has been doing well at follow up. The diagnosis of an ovarian pregnancy is based on Spiegelberg's clinical postulates and histological findings of products of conception within and in continuity with ovarian stroma.

Key Words: Ovarian Pregnancy, Spiegelberg's Criteria [Trop J Obstet Gynaecol, 2006, 23:176-177]

Introduction

Primary ovarian gestation is a rare entity. Some studies have shown that it occurs in every 25,000 to 40,000 pregnancies and in 0.7% to 0.4% of ectopic pregnancies¹. Mercerus, in 1641, was the first to suggest the possibility of ovarian pregnancy, but the first case was reported by Saint Maurice de Perigod in France in 1682.² The occurrence of an ovarian pregnancy in a patient who was seropositive for HIV-1 & 2 elicited this report.

Case Report:

A 32-year-old single female Para 0+⁰ presented at the Gynaecology Outpatient Clinic with a 7-month history of fever, weight loss, cough, and a 4-month history of lower abdominal pain. The cough was productive of whitish sputum with occasional blood streaks. She was admitted twice in a private hospital during which some investigations, including tests on her sputum and blood, chest x-ray and abdominal ultrasound scan were done. An extrauterine pregnancy and Koch's disease were diagnosed and she was started on anti-tuberculosis therapy. She was also transfused with one unit of blood following an episode of fainting.

She attained menarche at the age of 15 years and bled for 4 to 6 days in a regular cycle of 28 to 30 days. Her menstrual period has been irregular in the 6 months prior to presentation, ranging between 11 to 21 days in cycle duration. There was positive history of vaginal discharge in the preceding two years for which she had used antibiotics. She had also been placed on anti-retroviral drugs in a private clinic. By the time of presentation she had been on anti Koch's therapy for 3 months and anti-retroviral therapy for 1 month. There was no history of contraceptive use.

On admission her blood pressure was 100/60 mmHg, pulse rate of 86 beats per minute, temperature of 37.9°C, and her bodyweight was 37kg. There was a palpable pelvic mass of size compatible with a gravid uterus at 16 weeks gestation, more towards the right

iliac fossa. Vaginal examination revealed a brownish discharge and a right adnexal mass. The initial clinical impression was of an ovarian tumour with a differential diagnosis of missed extra-uterine pregnancy and retroviral infection.

Laboratory findings included the haemoglobin concentration of 10.8g/dl., leucocyte count of $5.6 \times 10^9/L$ (differential counts of Neutrophils - 25% and Lymphocytes - 75%), Blood group = B positive, haemoglobin genotype AA and a clotting time of 6 minutes. Chest x-ray revealed perihilar opacities but no evidence of metastases. Pelvic ultrasonography showed: a normal-sized uterus with no products of conception or fetal cardiac echo, intra- or extra-uterine. There was a right pelvic adnexal mass consisting of echoic and hypo-echoic areas with septae. Her blood was ELISA positive for HIV-1 and Western Blot Positive for HIV-2. Her CD4 count was 345.

Laparotomy was done under general anaesthesia. There was no ascites but flimsy pelvic adhesions were seen. The uterus was normal, with a few fibroid seedlings. The left fallopian tube was grossly normal and its fimbrial end was to the posterior uterine wall by adhesions. The right fallopian tube was distended, its fimbrial end buried in a globular mass about 8 to 10cm in diameter. The mass was attached to the pelvic side walls via the infundibulo pelvic ligament and attached to the uterus by ovarian ligament. A fetal skull, forearm bones, and ribs were seen protruding from the anterior aspect of the mass. The right ovary was involved in the mass (Figure 1). The left ovary was grossly normal. A right salpingo-oophorectomy was done. The specimen was sent for histopathology. Her postoperative haematocrit was 0.24 and she was discharged on the eighth postoperative day. At her second follow up

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Figure 1: Ovarian pregnancy. Fetal skull protruding, frimbriael end of tube (thick arrow), and suspensory ligament of ovary (thin arrow).



Figure 2: Histology of ovarian pregnancy showing three chorionic villi within ovarian stroma.



visit, a month after discharge from hospital, she had gained 3.8kg in weight and was about to resume work. She was doing well on anti-tuberculous and anti retroviral therapy.

A globular mass measuring 12 x 9 x 7cm and weighing

190g was received in the histopathology unit. It showed a well-formed fetus protruding at one end with skull and 2 forearm bones showing prominently. Adjacent to the fetal skull anteriorly was a distended fimbrial end of the fallopian tube, which was buried in the mass. Cut sections showed areas of haemorrhage and cysts. A diagnosis of intra ovarian gestation was made, based on the presence of chorionic villi within ovarian tissue (Figure 2).

Discussion

Nicholls,³ in 1941 reported that, up till then, 38 ovarian pregnancies had been recorded to reach the age of viability with 12 living babies and 22 living mothers. In another series⁴, the incidence of extrauterine pregnancy was one in 200 gestations, that of ovarian pregnancy was one in 34 extrauterine gestation and one in 7000 normal pregnancies. Others have reported one percent (1%) of ectopic pregnancies presenting as ovarian pregnancy⁵.

The causes of an ovarian implantation are obscure. Numerous hypotheses have been formulated¹. Delay in the release of the ovum, a thickening of the tunica albuginea, a tubal malfunction, or an extrauterine contraceptive device⁴. Most authors believe that pelvic inflammatory disease, which is often involved in the genesis of a tubal pregnancy does not seem to be important in ovarian implantation of the ovum⁴.

The patient reported met Spiegelberg's six hypotheses for ovarian pregnancies. In one study⁶, 26% of patients with ovarian pregnancy were primigravida and their average age was 28 years, consistent with the findings in our patient. Although this patient had pelvic inflammatory disease with mild tubal adhesions, contrary to what obtains in most of these patients, the adhesions were only mild and did not appear to have compromised tubal function.

To the best of our knowledge, no case of ovarian gestation in an individual who was HIV-positive had been previously reported in Nigeria. This patient had HIV infection with tuberculosis, which may not have been contributory to the ovarian gestation. However the possibility of a relationship will await more reports of patients with similar clinical features.

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