

# Ovarian pregnancy with a contralateral corpus luteum: Case report

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A case is described of a woman who was found to have an ovarian pregnancy on the left with a corpus luteum on the right ovary. This was determined by both pelvic sonography and laparotomy. The case did fulfill the four criteria of Spiegelberg. (AM J OBSTET GYNECOL 1986;154:155-6.)

**Key words:** Ovarian pregnancy, corpus luteum

Ovarian pregnancy is a rare form of ectopic gestation with approximately 300 cases reported in the literature.<sup>1</sup> The etiology remains obscure. Ectopic tubal pregnancies with a contralateral corpus luteum have been previously reported.<sup>2</sup> Reported is a case of an ovarian pregnancy with a contralateral corpus luteum, which we believe is the first one reported.

The symptoms that prompted the diagnostic laparoscopy and the subsequent laparotomy proved to be secondary to a leaking corpus luteum cyst of pregnancy. Thus we were able to have a clear view of the ovaries and tubes by sonography and by observation at the time of operation without the distorted image one gets following a ruptured ectopic pregnancy.

## Case report

The patient, a 24-year-old woman, had a 16-month history of infertility. She had a seemingly normal menses and was asked to come in on the twelfth day of the

menstrual cycle for a pelvic sonogram to evaluate follicular maturation. She was found to have a follicle on the right ovary that measured 18.3 mm. No follicles or cysts >10 mm were seen on the left. When she returned in 2 days for a check on the release of the egg, the cyst had grown to 24 mm. By day 18 the cyst had grown to 34.7 mm and the patient was thought to have a luteinized unruptured follicle syndrome. However, because of severe right lower quadrant abdominal pain, a test for the  $\beta$ -subunit of human chorionic gonadotropin was performed. The level was 7522 mIU/ml, which led to the laparoscopy and subsequent laparotomy. The presumptive preoperative diagnosis was an ectopic pregnancy, probably in the right tube.

At laparoscopy there was approximately 100 to 150 ml of dark blood and clots. A large cyst of approximately 3 to 4 cm in diameter was seen on the right ovary. Blood was oozing from it and it appeared to be a corpus luteum cyst. Careful inspection of the left ovary revealed an ovarian pregnancy at the distal pole, with confirmation at laparotomy. There were products of conception on the surface of the left ovary that were adherent to the posterior leaf of the broad ligament and the posterior uterine serosa via the ovarian ligament. The left fallopian tube appeared to be free and uninvolved. It was of normal length with a well-developed fimbrial portion. There were no endometrial im-

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plants seen or any adhesions elsewhere in the pelvis. The right tube appeared perfectly normal.

At laparotomy the left tube was identified with tubal forceps and examined in its entirety. No pregnancy could be seen within the tube and the fimbriated end appeared normal and uninvolved. The pregnancy was excised from the distal pole of the left ovary along with a part of the normal ovary.

The pathology report confirmed the presence of an ectopic pregnancy along with normal ovarian tissue.

#### Comment

A case of an ovarian pregnancy with a contralateral corpus luteum is described. We are not aware of another such case although a contralateral corpus luteum in tubal pregnancies has been described previously.<sup>2</sup> This case did fulfill the four criteria to establish an ovarian pregnancy as set forth by Spiegelberg in 1878: (1) The tube on the affected side was normal; (2) the

gestational sac occupied the normal position of the ovary (distal pole); (3) the sac was connected to the uterus by the ovarian ligament; (4) unquestionable ovarian tissue was demonstrated in the wall of the sac.

This case thus supports the hypothesis that an ovarian pregnancy may arise outside the ovary followed by either intrafollicular or extrafollicular implantation. Possible explanations for this ovarian pregnancy would include: (1) the menstrual reflux theory of Iffy with the zygote transversing the fallopian tube to the distal pole of the left ovary, (2) intraperitoneal fertilization, or (3) superovulation.

#### REFERENCES

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