

First-trimester serum levels of the β -subunit of human chorionic gonadotropin in a tubal molar pregnancy

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A woman is described in whom the levels of the β -subunit of human chorionic gonadotropin were rising in a pattern consistent with a tubal pregnancy. A tubal molar pregnancy was found. Thus an early ectopic molar pregnancy is not distinguishable from a nontrophoblastic tubal pregnancy on the basis of human chorionic gonadotropin levels. (AM J OBSTET GYNECOL 1987;157:910.)

Key words: Tubal molar pregnancy, human chorionic gonadotropin

Frequently the serum human chorionic gonadotropin (hCG) β -subunit levels in ectopic pregnancy do not show an appropriate doubling time.¹ The hCG β -subunit levels in patients with gestational trophoblastic disease are generally higher than anticipated for conceptual dating.² A case is presented of a tubal molar pregnancy, in which serial hCG titers were closely monitored shortly after conception. The levels were not distinguishable from hCG patterns seen in ectopic gestations of nontrophoblastic proliferation.

Case report

A 38-year-old nulligravid woman with a history of long-term infertility and oligomenorrhea had ovulation induction with clomiphene citrate, 50 mg, on days 5 to 9. Two mature follicles of 18.3 mm (right ovary) and 19.3 mm (left ovary) formed, and the functional maturity of those follicles was evidenced by a serum estradiol level of 655 pg/ml with a serum progesterone level of 0.3 ng/ml. Release of the ova from the follicles was also documented by sonography. The patient presented 5 weeks after the documented release of the ova but the hCG β -subunit level was only 83 mIU/ml. However, the hCG level proceeded to rise such that 9 days later it was 883 mIU/ml. It then rose to 903 mIU/ml 4 days later and reached a peak of 3347 mIU/ml 19 days later. At this time a pelvic ultrasound evaluation failed to reveal a gestational sac and instead demonstrated a 16 by 12 by 13 mm echo-free area in the right adnexa with no free fluid seen. A diagnostic laparoscopy revealed a leaking right tubal pregnancy involving the right proximal and mid ampullary segment. The left adnexa appeared totally within normal limits and at this point a right partial salpingectomy was per-

formed. The pathologic diagnosis on the resected tubal segment revealed hydatidiform mole with moderate trophoblastic proliferation arising in the ectopic pregnancy within the tube. Pathologic consultation was requested from a member of the trophoblastic disease registry who also reached a similar diagnosis, hydatidiform mole arising in an ectopic (oviductal) gestation and chronic salpingitis. The patient's postoperative course was uneventful and she permitted determination of only two follow-up hCG levels: 19.6 mIU/ml 13 days after operation and <5 mIU/ml 21 days after operation.

Comment

The failure to show appropriate doubling time of the hCG β -subunit level, from an initial value of 83 mIU/ml to only 903 mIU/ml 14 days later, is consistent with a typical pattern seen with tubal pregnancy. Thus, had the day of conception not been known, the interpretation of these hCG levels would not make one suspicious of trophoblastic disease. However, the marked rise in the hCG β -subunit level despite a previous low level of 83 mIU/ml 5 weeks after conception (which had suggested spontaneous abortion) created great suspicion of trophoblastic proliferation.

After 55 days from conception an appropriate interval doubling of the hCG β -subunit was seen for the first time and one can only speculate that had there not been surgical intervention that a more rapid inappropriate elevation of the hCG levels might have been noticed.

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