Early Appearance of Hydatidiform Mole by Ultrasound

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Ultrasonic scanning has been widely used to diagnose hydatidiform moles [1–6]. The majority of cases are diagnosed between 12 and 20 weeks [6], at which time multiple anechoic areas with uneven echogenicity in the remainder of the uterine cavity are the characteristic finding [1]. We have recently seen a case in which an ultrasound examination performed at 7 weeks might have led us to suspect the subsequently diagnosed hydatidiform mole. Since a delay in treatment increases the morbidity of this condition [3], we feel that an awareness of early ultrasonic clues is important.

Case Report

A 19-year-old primipara had fever and acute lower abdominal pain. Her last menstrual period had occurred 7 weeks earlier, and a positive chorionic gonadotropin confirmed early pregnancy. She was referred for pelvic ultrasound examination to rule out ectopic pregnancy or pelvic inflammatory disease (fig. 1). The ultrasound examination was interpreted as being consistent with a 7 week intrauterine gestation. However, the unusual thickness of the trophoblastic reaction and the poor definition of the chorionic sac were noteworthy. The pelvic ultrasound examination was otherwise normal.

For about 8 weeks the patient was managed as having a normal intrauterine pregnancy, although vaginal bleeding occurred during the last 5 weeks. Because of increased bleeding, and a uterine size large for her dates, she had a repeat ultrasound examination (fig. 2). This study was interpreted as consistent with a hydatidiform mole with a theca lutein cyst of the ovary.

The beta subunit chorionic gonadotropin had risen from 200,000 to 760,000 U. The next day, 1,000 ml of bloody tissue was removed during curettage. The histologic diagnosis of the lesion was hydatidiform mole with moderate to marked trophoblastic proliferation and atypia. A metastatic workup was negative. However, a third

Fig. 1.—Pelvic echogram 7 weeks after last menstrual period. A, Longitudinal scan, 4 cm right of midline. B, Transverse scan, 14 cm below iliac crest. Densely echogenic ring of trophoblastic activity in center of uterus. In place of usual sonolucent gestational sac, ring center is filled with solid tissue, as echoic as myometrium.

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ultrasound examination showed a large amount of residual molar tissue, and the patient was started on Actinomycin-D therapy.

Discussion

Hydatidiform moles are thought to arise from progressive swelling of the chorionic villi after the death or absence of an embryo. Moles usually occur during the first 3–4 weeks of development [1]. Macroscopically there are rounded vesicles, varying from several millimeters up to 2 cm, that usually fill the entire uterine cavity [7].

A gestational sac is normally seen after the fifth or sixth week of pregnancy. In the fifth week the sac is usually signet-ring shaped, the signet containing the embryo. However, all sacs are not round or oval; some are comma, crescent, or half-moon shaped [8]. An early pregnancy can be mistaken for a hydatidiform mole because the normal decidua occupies a large part of the uterus at that stage [1].

Seven weeks after the last menstrual period, the gestational sac is usually sharply defined and contains enough fluid to present a clearly anechoic structure. With modern, high resolution gray scale equipment, it is sometimes possible to identify the fetus; with real-time scanners, motion can be appreciated. Failure to see the embryo at this time is not unusual with the slightly older and slower scanners still in widespread use.

In our case the trophoblastic reaction was the size of a 7 week gestation. However, the anechoic area due to fluid within the gestational sac was small and indistinct, and the dense zone around it was considerably thicker than expected. Although a specific diagnosis of hydatidiform mole probably could not have been made, it should have been considered along with incomplete or missed abortion and an error in dates. An early reexamination might have diagnosed the molar pregnancy 5–6 weeks earlier.

REFERENCES

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