Start With US to Diagnose Ectopic Pregnancy

BY Sherry Boschet
San Francisco — Combining an ultrasonic exam and quantitative beta-hCG measurements may be the most efficient and effective way to diagnose an ectopic pregnancy, said Dr. Amy “Meg” Autry.

A decision analysis study found that performing transvaginal ultrasound, followed by measuring beta-hCG when ultrasound results were nondiagnostic, identified all ectopic pregnancies in the fastest time (1.46 days) with the fewest interrupted intrauterine pregnancies (less than 1%). Some other diagnostic strategies were faster but less sensitive or interrupted more normal pregnancies (Obstet. Gynecol. 2001;97:464-70).

In our hospital, in reality, we’re getting ultrasound and hCCGs at the same time” for women with suspected ectopic pregnancy, Dr. Autry said at a conference on antepartum and intrapartum management sponsored by the University of California, San Francisco. Some ultrasonographs will show evidence of intrauterine pregnancies even when the beta-hCG results are below the “discriminatory zone”—the hCG level above which a normal intrauterine pregnancy can be visualized consistently.

Combined, the ultrasound and beta-hCG results are 97%-100% sensitive and 93%-99% specific in diagnosing ectopic pregnancy. “This is predicated on a reliable and consistent ultrasonographer—whether it’s an ob/gyn or radiologist—and you have to know what your discriminatory zone is at your institution,” said Dr. Autry of the university. At her hospital, the discriminatory zone is 1,500-1,800 mlU/mL, using an endovaginal probe.

Even in patients with beta-hCG levels below the discriminatory zone, ultrasound can identify 33% of normal intrauterine pregnancies, 28% of spontaneous miscarriages, and 25% of ectopic pregnancies, a separate study found (Obstet. Gynecol. 1999;94:583-7).

In normal early pregnancies up to 41 days’ gestational age, beta-hCG levels double in 48 hours. “But once you’re at 6 weeks’ gestation, you should be following by ultrasound,” Dr. Autry said, because beta-hCG levels increasingly become less accurate for identifying normal pregnancies. At 41-57 days’ gestation, the beta-hCG level will increase 33% in 48 hours in normal pregnancies. At 57-65 days’ gestation, beta-hCG level increases only 5% in 48 hours in normal pregnancies.

Previous data have shown that 64% of women with ectopic pregnancy up to 41 days’ gestation will have normal doubling of beta-hCG, emphasizing the additional value of ultrasound examination. In early pregnancy, a beta-hCG increase of less than 50% in 48 hours invariably indicates a nonviable pregnancy, but doesn’t tell you where the pregnancy is.

When ultrasound results are indeterminate, the presence of echogenic material (“I call it schmutz”) in the uterus indicates a low likelihood of a normal intrauterine pregnancy, she added. Free fluid in the cul de sac suggests a moderate risk for ectopic pregnancy, a risk that increases with increased volume or echogenicity.

Don’t Jump to Glyburide Treatment for Gestational Diabetes, Expert Warns

BY Sherry Boschet
San Francisco — A growing body of evidence suggests that the oral agent glyburide may not be as safe as injected insulin to treat gestational diabetes, and that perceived barriers to women using insulin are unsubstantiated.

“The standard of care was insulin. Then everybody changed to glyburide based on an underpowered study” of 404 women with gestational diabetes who were randomized to glyburide or insulin therapy, Dr. Aaron B. Caughey said at a conference on antepartum and intrapartum management sponsored by the University of California, San Francisco.

The study reported similar glycemic control and neonatal outcomes between groups (N. Engl. J. Med. 2000;343:1134-8). “A lot of people that use glyburide base it on this one prospective, randomized trial” that was too small and showed some worrisome trends, he said. In the Pregnancy Program at the university.

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Other signs in indeterminate ultrasonographs can be worrisome, she said. A thick endometrial stripe with a beta-hCG level below 1,000 mlU/mL predicts an increased risk for ectopic pregnancy.

An empty uterus increases the risk for ectopic pregnancy fivefold. An empty uterus plus a beta-hCG rate of change of less than 60% suggests a 25-fold increased risk for ectopic pregnancy.

Other predictors of ectopic pregnancy include a history of ectopic pregnancy or miscarriage, older age, and bleeding. Dr. Autry said she has no conflicts of interest related to these topics.

Epidural Epinephrine Reduces Labor Pain

BY Heidi Splet
Washington — Adding epinephrine to epidural bupivacaine and fentanyl significantly reduced the breakthrough pain of women in labor, based on supplemental pain relief data from a randomized study of 107 women with uncomplicated singleton pregnancies.

Previous studies have shown that epinephrine enhances the analgesic effects of local anesthetics during labor, but the effects of adding epinephrine to epidural bupivacaine has not been well studied, noted Dr. Philip E. Hess of Harvard Medical School, Boston.

In this study, Dr. Hess and his colleagues enrolled women in active labor who were at least 7 cm dilated. The average age of the women was 32 years. All the patients received a standard epidural with bupivacaine and fentanyl, and then were randomized to receive or not to receive 1.16 mcg/mL epiduralbupivacaine (1:600,000) as part of the epidural solution. The results were presented in a poster at the annual meeting of the Society for Obstetric Anesthesia and Perinatology.

“The primary outcome was the need for the treatment of breakthrough pain,” Dr. Hess said during an oral review of posters. Overall, the mean number of boluses of supplemental pain medication was significantly lower in the epinephrine group compared with the control group (1.16 vs. 0.74), and the bolus rate was significantly lower in the epinephrine group compared with the controls.

But there were no significant differences in the duration of labor or in the occurrence of side effects (including hypotension, nausea, and vomiting) between the two groups. Pain scores were recorded every 15 minutes during labor using the visual analog scale.

The results suggest that adding epidural epinephrine at the beginning of labor significantly reduced the need for extra anesthesia to manage breakthrough pain, noted Dr. Hess, who said he had no conflicts to disclose.