Five Studies That Could Change Obstetric Practices

BY SHERRY BOSCHERT
San Francisco Bureau

KAILUA KONA, HAWAII — Five studies may change the way physicians think about prolonged premature rupture of membranes, perinatal stroke in the fetus, and other topics, Dr. Michael A. Belfort said at a conference on obstetrics, gynecology, perinatal medicine, neonatology, and the law.

He delineated five areas in which obstetric practices could change because of these studies, which also included suctioning on the perineum, management of herpes in pregnancy, and vaginal birth after cesarean section.

PPROM

If a pregnant woman with prolonged premature rupture of membranes (PPROM) reaches 34 weeks' gestation, it's probably in the mother's and the baby's best interests to deliver the baby rather than continue expectant management, according to a single-institution observational study (Obstet. Gynecol. 2005;105:12-7).

The investigators studied 430 pregnancies in 1998-2000 with PPROM and 24-36 weeks' gestation to determine optimal delivery time.

Infants were delivered after reaching maturity (34 weeks or later) or after the development of chorioamnionitis, active labor, fetal compromise, or phosphatidylglycerol in vaginal pools.

Composite scores for neonatal morbidity suggested that there is limited benefit to continuing expectant management after 34 weeks in women with PPROM. Although this was not a randomized, controlled trial, physicians should seriously consider delivering these babies before 35 weeks' gestation to avoid the risk of abruption, the sudden onset of infection, or other problems, said Dr. Belfort, professor of ob.gyn. at the University of Utah, Salt Lake City.

Perinatal Stroke

An analysis of data from the Kaiser Permanente system identified four major risk factors for perinatal arterial ischemic stroke (PAS), which is present in 50%-70% of fetuses with hemiplegic cerebral palsy, epilepsy, or cognitive impairment.

"Read this [report] and understand that it is possible for a baby to have a stroke in utero" even if clinicians did nothing wrong during the pregnancy or delivery, he said at the meeting sponsored by Boston University.

Two independent investigators reviewed 1,970 cases, compared them with three matched controls per case, and conducted multivariate analyses for risk factors. They found a rate of PAS of 20 per 100,000 live-born infants (JAMA 2005;293:723-9).

'Read this [report] and understand that it is possible for a baby to have a stroke in utero.'

DR. BELFORT

The four major risk factors for PAS were a history of infertility (with the risk perhaps related to the use of infertility drugs), preeclampsia, chorioamnionitis, and PPROM lasting longer than 18 hours. To defend against a lawsuit related to a bad outcome in a baby with PAS, look at the records to see if these risk factors were present, he suggested.

Trial of Labor

A 4-year observational study of 45,988 pregnant women with a prior cesarean section who underwent either a trial of labor or elective C-section answered an important question about the risks of Pitocin that had been left hanging by previous studies of vaginal births after C-section.

Inducing labor significantly increased the risk of uterine rupture and rate of perinatal complications, the investigators found (N. Engl. J. Med. 2004;351:2581-9). Keep that in mind when counseling patients, he suggested.

Suctioning

A randomized, controlled study of 2,514 infants with meconium called into question the routine intrapartum practice of oropharyngeal suctioning. "We're all trained to do that," Dr. Belfort noted.

Routine intrapartum suctioning did not prevent meconium aspiration syndrome, and in rare cases it traumatized the nasopharynx or caused a cardiac arrythmia (Lancet 2004;364:597-602).

Recommendations for routine intrapartum suctioning should be revised, he said.

Herpes

A metaanalysis of five randomized, controlled trials involving 799 pregnant women with herpes simplex virus found that giving acyclovir therapy beginning at 36 weeks' gestation reduced herpes recurrences at delivery, viral load, symptomatic shedding, and the need for cesarean deliveries (Obstet. Gynecol. 2003;102:1396-403).

"This is hard evidence, in my mind at least, that this is the standard of care now for women with herpes," he said. ■

Set Low Threshold for Appendectomy in Pregnant Women

BY BETSY BATES
Los Angeles Bureau

PASADENA, CALIF. — The diagnosis of appendicitis can, of course, be exquisitely difficult in a nonpregnant patient. Pregnancy only makes the task more daunting.

However, the challenge must be met because early diagnosis and prompt surgery may mean the difference between life and death for both the mother and the fetus, said Dr. J. Gerald Quirk, who is professor and chairman of obstetrics, gynecology, and reproductive medicine at the State University of New York at Stony Brook.

"The risks of temporizing appendicitis in pregnant women are quite grave," he warned at a meeting of the Obstetrical and Gynecological Assembly of Southern California.

Approximately 1 in 1,000 pregnancies are complicated by appendicitis, noted Dr. Quirk. Appendectomy confirms the disease in two-thirds to three-fourths of patients.

Unfortunately, perforation is not an uncommon result of delay, with dire consequences. While fetal mortality occurs as a result of unperforated appendicitis in 3%-5% of cases, a perforated appendix is associated with the much higher fetal mortality rate of 20%-30%.

Maternal mortality, seen in approximately 0.1% of cases of unperforated appendicitis, rises precipitously to 4% with perforation.

The threshold for surgery should therefore be low, and increasingly so as the pregnancy progresses, since perforation is twice as common in the third trimester as it is in the first or second. "What you're doing is just increasing the risks … by waiting."

And still, in part out of reluctance to operate unnecessarily, "We are loathe to make the diagnosis and a lot of surgeons are loathe to act on the diagnosis," he said.

In fact, when special accommodations are made for physiologic changes associated with pregnancy, uncomplicated surgery and anesthesiology are not thought to be linked to adverse perinatal outcomes, said Dr. Quirk.

"In most cases, I think one can be assured that what's best for mom is best for the fetus."

It is not surgery that poses the greatest risk, but, in the words of Dr. E.A. Babler in 1908, "[the mortality of appendicitis is] the mortality of delay."

Uncertainty drives that delay, inasmuch as many of the classic signs and symptoms may not be present or may be confusing in the pregnant patient, and the differential diagnosis of appendicitis is long and complex. (See box.)

The location of the appendix varies during different stages of pregnancy. "What we do know is that it moves around," he said.

Direct abdominal tenderness is a fairly reliable sign of appendicitis during pregnancy, but rebound tenderness is much less reliable, because the enlarged uterus shields the abdominal wall. Rectal tenderness is frequently absent, said Dr. Quirk.

Anorexia, present in nearly all nonpregnant patients with appendicitis, occurred in only one- to two-thirds of pregnant patients in a 1975 study from Parkland Hospital in Dallas, he noted. In early pregnancy, anorexia may be associated with morning sickness, further complicating its usefulness as a contributor to a diagnosis of appendicitis.

Dr. Quirk said a urinalysis showing many white cells but no bacteria may reinforce the diagnosis of appendicitis in a pregnant woman, because perioureteritis can develop over the right ureter.

Ultrasound or spiral CT imaging may be helpful, but imaging is not always reliable. In any case, a surgical consult should be obtained immediately and the decision to operate made promptly. Also, perioperative antibiotics should be administered.

General anesthesia is generally well-tolerated in pregnancy; laparoscopy or laparotomy appear to be equally safe. The incision generally is made over the point of maximal tenderness, or at the midline if the diagnosis is seriously in doubt or if diffuse peritonitis might be present.

The table should be tilted 30 degrees to the left, and uterine manipulation minimized. Some institutions advocate external fetal monitoring.

Following surgery, Dr. Quirk recommends monitoring the uterus for contractions. The mother should ambulate early and be kept well hydrated. During rest, the patient should maintain the tilt position.

Because the diagnosis is so difficult, negative appendectomies can be expected. Acceptable rates are considered to be 25%-35% in early pregnancy and more than 40% in the second and third trimesters, "as the consequences of delay are so severe," he said. ■

Differential Diagnosis

Nonobstetric Conditions	Obstetric Conditions
Urinary calculi	Preterm labor
Cholelithiasis	Abruptio placentae
Cholecystitis	Chorioamnionitis
Bowel obstruction	Adnexal torsion
Gastroenteritis	Ectopic pregnancy
Mesenteric adenitis	Pelvic inflammatory disease
Colonic carcinoma	Round ligament pain
Rectus hematoma	Uteroovarian vein rupture
Acute intermittent porphyria	Carneous degeneration of myomas
Perforated duodenal ulcer	Uterine rupture (placenta percreta; rudimentary horn)
Pneumonia	
Meckel's diverticulum	

Source: Dr. Quirk

Pages 10a—10b