

## Classical Incision Advised In Some Circumstances

BY SHERRY BOSCHERT  
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SAN FRANCISCO — After the onset of labor, using a classical incision for C-section delivery of a very-low-birth-weight neonate in nonvertex position reduced the risk of intraventricular hemorrhage, compared with a transverse incision or transverse incision with extension, a study of 148 deliveries found.

The decrease in risk was more pronounced for more severe intraventricular hemorrhage (IVH), Dr. Kai Ling Tan and associates reported in a poster presentation at the annual meeting of the Society for Maternal-Fetal Medicine.

Previous studies have shown that vaginal delivery is safe for infants in vertex position weighing less than 1,000 g, but data are sparse on rates of IVH after delivery of very-low-birth-weight (VLBW) infants in breech, transverse, or oblique positions.

"It is a constant debate among ob.gyns. in the [morbidity and mortality] conferences in my institution whether to do a classical or a low transverse incision" in these cases, said Dr. Tan of the Medical College of Wisconsin Affiliated Hospitals, Wauwatosa, Wis., in an interview at the poster session.

The current retrospective review

found no significant difference in IVH rates between the 93 neonates delivered by classical C-section (27% with IVH) and 58 delivered using one of the two low transverse incisions (34% with IVH). For 94 women who went to C-section after the onset of labor, however, 27% of neonates in the classical incision group had IVH, compared with 54% in the low transverse incisions group, a significant difference.

In the laboring group, severe IVH (grade 3-4) or death occurred in 18% of neonates after a classical incision, and in 50% after a low transverse incision, which also was significant. The lead author of the poster was Dr. Jeffery Garland of Wheaton Franciscan Healthcare-St. Joseph, Milwaukee.

In general, physicians who encounter difficulty delivering an infant through a low transverse incision sometimes use a J or T extension of the incision. VLBW infants may be more vulnerable in these situations, Dr. Tan said. The most common reason for extending uterine incisions is to deliver a nonvertex infant, some reports suggest.

The association between classical incision and decreased risk for IVH in nonvertex, VLBW infants after labor remained significant after controlling for potential confounders, the investigators said. ■

## Aspiration Benign, Helpful For Investigating Breast Mass

BY MICHELE G. SULLIVAN  
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RIVIERA MAYA, MEXICO — Aspirate or biopsy any breast mass discovered in a pregnant or lactating woman, because breast cancer in these patients is associated with higher mortality—probably because of delay in diagnosis, Dr. Carol Scott-Conner said at a meeting on medical negligence and risk management.

Studies show that women who are pregnant within 2 years of a breast cancer diagnosis are at a much higher risk of poor outcomes, with 50% having locally advanced or regional disease at diagnosis, compared with 39% of nonpregnant patients, said Dr. Scott-Conner, professor of surgery at the University of Iowa, Iowa City.

Reasons for diagnostic delay may include the fact that masses are more difficult to detect in engorged breasts; patient denial and physician procrastination also probably play a role. "These masses also may be

confused with mastitis or other benign entities, like fibroadenoma, lactating adenoma, galactocele, or breast abscess," she said.

Although it has not been proven, there are concerns that pregnancy-associated breast cancer may be a more aggressive form of the disease. "Many patients I see have experienced no delay in diagnosis but still have a fairly advanced tumor. We just don't know," she said.

Most patients come in with a self-identified palpable mass. Fine-needle aspiration cytology will give valuable information for these lesions. "I'm a great believer in liberal use of FNAC," said Dr. Scott-Conner, previous chair of surgery at the university.

"It's a benign test that's easy to do and is very helpful." Make sure to inform the lab that the patient is pregnant or lactating, though, because normal proliferative changes can mimic neoplastic changes, she noted at the meeting, which was sponsored by Boston University. ■

## DRUGS, PREGNANCY, AND LACTATION

### Cocaine

Concerns about the adverse effects of maternal cocaine use during pregnancy on children exposed in utero have been the focus of many studies since the 1980s, when the use of cocaine began to increase, first among more affluent socioeconomic groups, then shifting to lower income groups with the advent of cheap crack cocaine.

During the mid- to late-1980s, reports suggested cocaine use during pregnancy caused different congenital malformations, which were followed by other reports suggesting that cocaine had adverse effects on long-term neurodevelopment in children exposed in utero. However, more recent systematic reviews of a large number of cases have not found an association between in utero exposure to cocaine and an increase in malformations of any kind, and these original concerns have not been borne out.

Women who use cocaine have many other risk factors for poor neonatal outcome and adverse long-term effects on the child than women who don't use cocaine, which may include low socioeconomic class, smoking, poor nutrition, and abuse of other drugs.

Over the years, studies have more carefully controlled for these other factors, comparing women who used cocaine during pregnancy to women in similar environments, who had the same risk factors but did not use cocaine. These studies have not found any association between maternal cocaine use and congenital defects or long-term effects in children.

In 2001, investigators performing a review of 36 prospective studies of prenatal cocaine exposure in children aged 6 years and younger found no convincing consistent evidence that in utero cocaine exposure was associated with negative effects on physical growth, developmental test scores, or receptive or expressive language.

They concluded that "many findings once thought to be specific effects of in utero cocaine exposure can be explained in whole or in part by other factors, including prenatal exposure to tobacco, marijuana, or alcohol and the quality of the child's environment" (JAMA 2001; 285:1613-25).

While these and later studies constitute the overall picture, some well-designed studies have suggested that prenatal cocaine exposure does have some serious adverse effects, most notably, a greater risk of prematurity and higher rates of placenta previa.

There are also reports that some addicted women take high doses of cocaine near the end of pregnancy because they believe it may induce labor, which can result in placental bleeding and shock, potentially resulting in adverse, long-term effects on brain development in the baby.

An important consideration for obstetricians and other health care professionals who follow women who may use cocaine during pregnancy and those who follow their children is that continuing use of cocaine after a woman knows she is pregnant is recognized

as essentially a sine qua non for addiction.

While many women may not disclose they use cocaine during a history, our laboratory and others have developed methods of ascertaining whether a baby has been exposed to cocaine in utero, such as analysis of neonatal hair and meconium, biomarkers for maternal cocaine use that are validated and widely used by social services and clinicians in the United States and Canada.

Cocaine and its metabolite benzoylecgonine accumulate in fetal hair during the last trimester, so a positive test is a strong indicator that the mother used cocaine during the sixth or seventh months.

Cocaine and benzoylecgonine also accumulate in meconium, which is produced in mid-pregnancy, so a positive meconium test is an indication of use earlier during pregnancy.

The meconium analysis can be used during the first few days post partum, while the hair analysis can be used for up to 3 months after the baby's birth.

Studies have documented damage to the brain in monkeys exposed in utero to cocaine at doses equivalent to doses that are typically used in humans.

Why similar findings have not been found in human studies speaks volumes to the plasticity of the newborn's or young child's brain and the ability to recover, if early environmental factors, with optimal stimulation, are favorable. This is an important area of research that is not yet fully resolved.

We conducted a study comparing children exposed in utero to cocaine who had been adopted by stable families in which, presumably, environmental factors were normal, to biologic children of mothers from the same socioeconomic class as the adoptive mothers.

The IQs of the adopted children were significantly lower than the comparator group, although the families were not aware of any neurodevelopmental problems with the children. This suggests that even in an optimal situation, however, not all damage could be reversed by brain plasticity.

Some studies have suggested there may be an effect of fetal cocaine exposure on some specialized executive functions, such as the ability to perform complex tasks, or more refined functions, but the verdict on this issue is still out.

We and others continue to follow children who have been exposed in utero to cocaine in studies, and are trying to understand sources of variability and why some children are affected and others are not.

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BY GIDEON KOREN, M.D.