Research Update

Reducing the Rate of Cesarean Birth

Mary Lou Moore, PhD, RNC, LCCE, FACCE, FAAN

Abstract

This column examines recent research that illustrates the varying perspectives of cesarean birth and vaginal birth.

Journal of Perinatal Education, 11(2), 41–43; cesarean birth rate, birth risks.

MARY LOU MOORE is an associate professor in the Department of Obstetrics and Gynecology at the Wake Forest University School of Medicine in Winston-Salem, North Carolina.

Rates of cesarean birth are rising throughout the world. Husslein, an Austrian obstetrician, stated that “no other topic has dominated the obstetrical discussion to the same extent as caesarean section” (Husslein, 2001, p.169). When I was invited in 2001 to speak to a multidisciplinary group of health care providers in Nairobi, Kenya, the requested topic was reducing cesarean births.

In the United States, the rate of cesarean birth peaked at 24.7% in 1988 and then experienced a steady decline from 1989 until 1996, when it again began to rise. Rates in Canada, though never as high as in the United States, nevertheless followed a similar trajectory, dropping from 19.6% in 1987 to 17.6% in 1993 and reversing the decline in 1994. The 1996 rate was 18.4% (Ontario Women’s Health Council, 2000).

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2010 and the American College of Obstetrics and Gynecology have established a goal of 15.5% cesareans for first time births.

Varying perspectives among both providers and pregnant women drive the discussion surrounding cesarean birth. One perspective is that cesarean delivery is a major surgical procedure and should only be used when clear medical indications are evident. This is consistent with Lamaze International's philosophy that birth is normal. Other providers suggest that a cesarean is merely an efficient way to deliver an infant, as well as one that embodies the lowest risk. Still other providers argue that the debate has focused almost exclusively on short-term sequelae and should also include information on long-term outcomes, primarily pelvic dysfunction.

Recently, the question of elective cesarean section in women with no risk factors has been debated, primarily—but not exclusively—in Europe. Husslein wondered, “Is it really justifiable to make use of a particular option when it is to our own advantage, but not extend this choice to the pregnant women entrusted to our care?” (2001, p. 170).

Pregnant women also appear to differ in their views. Some women see vaginal birth as a peak experience in their lives, while others fear the pain of a vaginal birth and are more than happy to forego that experience. In a study of Brazilian women, significantly more women who had experienced at least one vaginal birth considered vaginal birth to be the best way of giving birth (90% vs. 76%). Brazilian women who had only cesarean births felt that the absence of contractions and pain was an advantage of the cesarean method. However, less than half of the women in each group (43% and 45%) felt that an advantage of vaginal labor was less pain and suffering (Osis, Padua, Duarte, Souza, & Faundes, 2001).

Reasons for choosing vaginal or cesarean birth may go beyond the time of labor and birth. In South Korea, where elective cesarean birth is an option, parents who

believe that the birth date will determine the child's destiny may choose to have their birth on a propitious day. In Thailand, some parents believe that their sexual life may be affected by vaginal birth and, therefore, choose an elective cesarean (Kohri, 2000). In an entirely different culture, British obstetricians were queried about the preferred method of delivery in a hypothetical first pregnancy with no complications. The authors found that 31% of female obstetricians and 8% of male obstetricians would choose cesarean delivery, if requested, in the absence of any medical necessity, citing concern about potential damage to the perineum (80%) and postpartum sexual malfunction (Al-Mufti, McCarthy, & Fisk, 1997). In a second, more recent, study also from the United Kingdom, 69% of 151 obstetricians said they would agree to “maternal request for cesarean section on a woman with an uncomplicated singleton cephalic presentation at term” (Cotzias, Paterson-Brown, & Fisk, 2001). Of those who responded yes, 60% claimed their practice had changed recently. The difference in the percentages of respondents who would choose a cesarean in the absence of medical indication may reflect either a change in attitude in the four intervening years or a different sample.

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Data on the long-term effects of the route of birth are limited. In one study that examined only operative delivery, cesarean birth was observed to cause the least problems and delivery by vacuum or forceps the most problems (Barrett et al., 2000). Farrell, Allen, and Baskett (2001) reported the highest incidence of urinary incontinence among women with forceps delivery, the next highest in women with spontaneous vaginal birth, and the lowest incidence in women with cesareans. Sultan and colleagues suggested that vaginal birth may lead to pelvic-floor dysfunction (Sultan, Monga, & Stanton, 1996). Eason and her co-investigators found that forceps delivery was an independent risk factor for anal incontinence (Eason, Labrecque, Marcoux, & Mondor, 2002).

However, in an Australian study of 3,010 adults, MacLennan found that 46.2% of the population surveyed

reported current or postpelvic-floor dysfunction. The rates were 12.4% in nulliparas, 43% following cesarean birth, 58% following spontaneous vaginal birth, and 64% following instrumental delivery. The rate for nulliparous women (12.4%) was similar to that of men (11.1%). MacLennan concluded that any woman giving birth has a significantly increased risk of pelvic-floor dysfunction in comparison to women who have never birthed a child (MacLennan, 2000).

As health care providers and childbirth educators, what do these studies mean for our practice and for parents-to-be? Questions about elective cesarean and the relationship of vaginal birth to future pelvic dysfunction may arise in clinical settings and in classes. Currently, does a sufficient body of data exist upon which we can draw for answers?

The scientific data about pelvic dysfunction is limited. At least one study (MacLennan, 2000) suggests that pregnancy and birth per se, not the route of birth, are most associated with pelvic-floor dysfunction. Because the highest risk for pelvic problems is associated with episiotomy and vacuum/forceps delivery and because these interventions are often used to shorten the second stage of labor, women should question the reason for the use of operative intervention.

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Even in the 21st century, cesarean birth is not without risks, both to the mother and her infant. In a risk/benefit analysis, these risks are considered low when a clear medical indication exists for cesarean birth; however, the risks need to be carefully considered when no medical indication exists. Well-documented risks to the mother include an increased rate of maternal infection, a longer period of healing, potential complications in subsequent pregnancies, and increased period of separation of the mother and infant postbirth. Infants are more likely to experience transient tachypnea and persistent pulmonary hypertension. Decreasing cesarean births by increasing vaginal operative deliveries should not be the goal; rather, consumers and providers should work to-

gether to implement strategies to increase the likelihood of spontaneous vaginal birth.

Women need to know that vaginal birth and an intact perineum with a healthy baby are achievable goals for most women. Strong evidence already exists to support restricting the use of episiotomy (Carolli & Belizan, 2001). Researchers need to continue to identify strategies to reduce cesarean birth and to search for the best way to reduce both episiotomies and vacuum/forceps deliveries that are the most likely to lead to pelvic dysfunction.

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