

# Planned elective cesarean section: A reasonable choice for some women?

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A growing number of women are requesting delivery by elective cesarean section without an accepted “medical indication,” and physicians are uncertain how to respond. This trend is due in part to the general perception that cesarean delivery is much safer now than in the past and to the recognition that most studies looking at the risks of cesarean section may have been biased, as women with medical or obstetric problems were more likely to have been selected for an elective cesarean section. Thus, the occurrence of poor maternal or neonatal outcomes may have been due to the problem necessitating the cesarean delivery rather than to the procedure itself. The only way to avoid this selection bias is to conduct a trial in which women would be randomly assigned to undergo a planned cesarean section or a planned vaginal birth. When this was done in the international randomized Term Breech Trial involving 2088 women with a singleton fetus in breech presentation at term, the risk of perinatal or neonatal death or of serious neonatal morbidity was significantly lower in the planned cesarean group, with no significant increase in the risk of maternal death or serious maternal morbidity.<sup>1</sup>

In response to the growing demand from women to have a planned elective cesarean section, the American College of Obstetricians and Gynecologists published a committee opinion<sup>2</sup> that states

If taken in a vacuum, the principle of patient autonomy would lend support to the permissibility of elective cesarean delivery in a normal pregnancy, after adequate informed consent. To ensure that the patient's consent is, in fact, informed, the physician should explore the patient's concerns. ... If the physician believes that cesarean delivery promotes the overall health and welfare of the woman and her fetus more than vaginal birth, he or she is ethically justified in performing a cesarean delivery. Similarly, if the physician believes that performing a cesarean delivery would be detrimental to the overall health and welfare of the woman and her fetus, he or she is ethically obliged to refrain from performing the surgery.

The Ethics Committee of the Society of Obstetricians and Gynaecologists of Canada is also preparing a statement.

What are the risks of cesarean delivery? The maternal mortality is higher than that associated with vaginal birth (5.9 for elective cesarean delivery v. 18.2 for emergency cesarean v. 2.1 for vaginal birth, per 100 000 completed pregnancies in the United Kingdom during 1994–1996).<sup>3</sup> Cesarean section also requires a longer recovery time, and operative complications such as lacerations and bleeding

may occur, at rates varying from 6% for elective cesarean to 15% for emergency cesarean.<sup>4</sup> Having a cesarean delivery increases the risk of major bleeding in a subsequent pregnancy because of placenta previa (5.2 per 1000 live births) and placental abruption (11.5 per 1000 live births).<sup>5</sup> Among term babies, the risk of neonatal respiratory distress necessitating oxygen therapy is higher if delivery is by cesarean (35.5 with a prelabour cesarean v. 12.2 with a cesarean during labour v. 5.3 with vaginal delivery, per 1000 live births).<sup>6</sup> Also, a recent study has reported that the risk of unexplained stillbirth in a second pregnancy is somewhat increased if the first birth was by cesarean rather than by vaginal delivery (1.2 per 1000 v. 0.5 per 1000).<sup>7</sup> Lastly, birth by cesarean is not generally considered “natural” or “normal.”

What are the benefits of cesarean section? It may reduce the risk of urinary incontinence, which is a common postpartum problem. In one study of primiparous women, 26% had urinary incontinence at 6 months post partum, the rate being lowest with elective cesarean (5%), higher with cesarean during labour (12%), higher still following a spontaneous vaginal birth (22%) and highest following a vaginal forceps delivery (33%).<sup>8</sup> Although not as common as urinary incontinence, fecal incontinence, affecting about 4% of women giving birth, is usually a serious problem, and the risk may be reduced by cesarean section.<sup>9</sup> Other maternal benefits from cesarean delivery include avoidance of labour pain, alleviation of fear and anxiety related to labour or birth<sup>10,11</sup> and reduced worry about the health of the baby.<sup>12</sup> Also, some women may just prefer the convenience and control of being able to plan the precise timing of the birth. The baby may also benefit. The risk of an unexplained or unexpected stillbirth may be reduced by cesarean section, as may be the risk of complications of labour such as clinical chorioamnionitis, fetal heart rate abnormalities and cord prolapse.<sup>1,13</sup> Lastly, labour and vaginal birth, complete with hospital stay, continuous electronic fetal heart rate monitoring, induction or augmentation of labour, epidural analgesia, forceps delivery, episiotomy and multiple caregivers, may also not be considered “natural” or “normal.”

However, this issue involves more than a simple comparison of risks and benefits of cesarean and vaginal birth. Planning for a vaginal birth may result in an emergency cesarean section, which carries higher risks for the mother than if an elective cesarean had been undertaken.<sup>3,14</sup> For a term pregnancy with a breech presentation the risk of emergency cesarean is over 40%.<sup>1</sup> If the baby is in a cephalic presentation,

the risk of emergency cesarean may be less than 5% for a multiparous woman in spontaneous labour at 37 weeks' gestation, and as high as 35% for a primiparous woman who is having labour induced at 42 weeks' gestation.<sup>15</sup> Other factors, such as maternal age, may also affect this risk.<sup>16</sup> If the mother has a vaginal birth, it may have required a forceps delivery or resulted in tearing of the anal sphincter, or both, thus increasing the risks of urinary and fecal incontinence.<sup>17</sup> Although pelvic floor muscle training may reduce the risk of postpartum incontinence,<sup>18</sup> these exercises are not always prescribed by obstetric care providers.

The important question, therefore, is whether a planned cesarean delivery will be more beneficial than harmful to a woman and her baby compared with a planned vaginal birth. To answer this question for women with a singleton fetus in breech presentation at term, we undertook the international randomized controlled Term Breech Trial involving 2088 women.<sup>1</sup> Most (90.4%) of the women randomly assigned to the planned cesarean group delivered by cesarean section; however, only 56.7% of the women randomly assigned to the planned vaginal birth group actually delivered vaginally, the others having complications that necessitated a cesarean section. Compared with planned vaginal birth, the policy of planned cesarean delivery reduced the risk of perinatal or neonatal death (0.3% v. 1.3%,  $p = 0.01$ ) and the risk of perinatal or neonatal death or serious neonatal morbidity (1.6% v. 5.0%,  $p < 0.0001$ ). There was 1 maternal death in the planned vaginal birth group. The risk of maternal death or serious short-term maternal morbidity was low among all women and not increased among women in the planned cesarean group (3.9% v. 3.2%,  $p = 0.35$ ).<sup>1</sup> However, when these results were included in a Cochrane review with 2 other small randomized trials, the risk of short-term maternal morbidity was significantly higher with a policy of planned cesarean section than with planned vaginal birth (relative risk 1.29, 95% confidence interval 1.03–1.61).<sup>19</sup> On the basis of this information, the American College of Obstetricians and Gynecologists issued a committee opinion on breech delivery stating that "patients with a persistent breech presentation at term in a singleton gestation should undergo a planned cesarean delivery."<sup>20</sup> And at 3 months after the birth, women in the planned cesarean group of the Term Breech Trial were less likely than women in the vaginal birth group to report urinary incontinence (4.5% v. 7.3%,  $p = 0.02$ ).<sup>12</sup>

Unfortunately, for women not having a breech birth, such as those pregnant with twins, women who have had a previous cesarean section, older women, those who are having their first baby, those with incontinence problems and women who are afraid of labour, we have little information on the true benefits and risks of planned elective cesarean section compared with planned vaginal birth. Randomized studies are underway involving women with twins and women who have had a previous low-segment cesarean section, but the findings will not be available for several years.

In the meantime, what should physicians do? Most women prefer to plan for a vaginal birth.<sup>11</sup> However, if a woman with-

out an accepted medical indication requests delivery by elective cesarean section and, after a thorough discussion about the risks and benefits, continues to perceive that the benefits to her and her child of a planned elective cesarean outweigh the risks, then most likely the overall health and welfare of the woman will be promoted by supporting her request.

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