How safe are vaginal breech births?

hd healthydebate.ca/2017/10/topic/vaginal-breech-births

Vanessa Milne, Maureen Taylor & Sachin Penharkar

Jamie McCallum has had two breech babies – and two entirely different birth experiences. With the first, she wasn't given the choice of trying a vaginal breech birth because her baby was footling – with one foot down, instead of bum down – which is a higher-risk variation of breech births. Instead, she had a Cesarean section, an experience she describes as traumatic. "I was a home birth person," she says. "There was no way I wanted to be in major surgery just to have a baby. It seemed unsafe, and my mother had had two horrific, terrifying experiences with Cesareans."

Her next baby was also breech, but in a better position – and Brignell was fortunate to have Ottawa-based midwife Betty-Anne Daviss, who specializes in breech births, as her care provider.

Daviss went through the evidence around vaginal breech births with McCallum, leaving her feeling confident that this baby could be delivered vaginally. "I felt like a vaginal breech birth was safer, for me and for the baby, than a planned or unplanned Cesarean, and my husband felt the same way. But I think the rest of our families and friends thought I was nuts. My parents were really concerned – they really didn't understand why I would take what they thought was such a risk. But I felt like the odds were in our favour because of her position, because of our care provider's expertise, and because my previous labours were fast."

About 4 percent of babies in Canada will be breech at term. For years, having a breech baby meant an automatic C-section, but nowadays, patients are more likely to have both options presented to them, as they were to McCallum. It's a difficult decision, because even now, "there remains uncertainty whether planned vaginal birth or planned Cesarean section is the best approach," says Justus Hofmeyr, author of a 2015 Cochrane review on the issue. Further complicating matters is that because there are so few qualified providers to perform a vaginal birth for breech babies, it's common for women who do choose that option to have a C-section anyways.

The Term Breech Trial changes everything

In 2000, the first large randomized controlled trial on vaginal breech birth came out. The study, led by Canadian Mary Hannah, compared term breech babies in 26 countries who were delivered by planned C-section with those born with a trial of labour – where the mothers began in labour, regardless of whether that ended in a C-section or in vaginal

delivery. The study looked at infant deaths, as well as serious morbidity, which includes a long list of complications, like spinal-cord injury, seizures, or admission to a NICU for more than four days. It also looked at deaths and serious morbidity in the mothers.

The results were so dramatic that the trial was stopped early: 1.6% of breech babies born by C-section died or had serious morbidity, and 5.1% of babies born through a trial of labour did. The study included data from both high- and low-income countries, which some argue makes the results less applicable to Canada. But Hofmeyr points out that even when you analyze the data for high-income countries alone, you still see somewhat higher rates of death and serious morbidity in babies with planned vaginal birth.

The study had a huge impact almost immediately. "The Term Breech Trial basically killed breech deliveries in North America," says Howard Berger, the head of maternal fetal medicine and obstetrical ultrasound at St Michael's Hospital in Toronto. "The number of vaginal breech deliveries in Canada were steady, and then the paper came out, and the next month, there were almost none."

More research muddies the waters

However, when the Term Breech Trial's researchers re-assessed babies from high-income countries two years later, the risks from vaginal breech births seemed to disappear completely: 3.1% of the toddlers born by planned C-section died or had severe neurological disorders, while 2.8% of those born vaginally did. But the researchers guessed that was because since most newborns who have serious morbidity do recover and develop normally, their study wasn't large enough to catch anything but very large increases in morbidity. Translation: there might have been a smaller effect, but this study wasn't big enough to see it.

Daviss says she was surprised this follow-up study didn't change practice more. "I thought it was really interesting that when the 2000 data came out suggesting that planned C-sections were best, the whole world changes, but as soon as it turns out that there's another story [from the follow-up data], we didn't have the same overwhelming response," she says. She believes the 2004 follow up represents the bottom line around breech births – "that most of that morbidity is short-term" – which also fits with her personal experience as a midwife.

Then, in 2006, the Premoda study, an observational study of more than 8,000 women in France and Belgium, found no difference in the rates of serious illness or deaths between breech babies delivered by trial of labour and those delivered by C-section. This is often used as a rebuttal against the TBT, as it seems to show that well-selected cases done in high-income countries are safe.

Berger sees this as simply showing that the TBT has limitations – and warns against valuing cohort studies equally with randomized controlled trials. “Like any trial, there are limitations to the Term Breech Trial, and you can’t just broadly extrapolate from that to say that all vaginal deliveries shouldn’t be done,” he says. “What you can learn from these other studies is that yes, vaginal breech births can be very safe. My view on this is that it is possible to do a vaginal breech delivery safely, as long as certain criteria are met.”

Jon Barrett, one of the authors of the Term Breech Trial and the division chief of maternal and fetal medicine at Sunnybrook Health Science Centre, draws similar conclusions. “My opinion is that there are some flaws in the Term Breech Trial – as there are in any trial – and those probably mean that the extent of adverse effects of planned vaginal breech births was not as great as was suggested. The truth is, the risk of a vaginal breech delivery is somewhere between the TBT and other studies the Premoda trial, and we’re just not sure of the magnitude,” he says.

He points to a population study done in the Netherlands instead, which found that in the years after the Term Breech Trial was published, the hospitals who changed their policy to planned C-sections had a drop in the number of babies who died, whereas hospitals who continued with a policy of having vaginal breech births as an option did not see their rates change.

Closer to home, a 2015 study looked at over 52,000 Canadian births (excluding Quebec) from 2003 to 2011. It found that for full-term babies, the rates of death and serious illness in infants were 3.6 times higher in trial of labour deliveries than in planned C-sections. That means that for every 41 vaginal breech deliveries, one baby would be harmed.

Lead author Janet Lyons said they did the study because they felt that “after the Premoda study, breech delivery was being considered casually.” She suspects that poor case selection might explain the poorer outcomes in vaginal breech deliveries. “I think overall, it is just a riskier delivery,” she says. “But I do think that if this reflected a better selection of women who were good candidates, the numbers could be quite different.”

Choosing carefully: the right circumstances for vaginal breech birth

So what makes a woman a good candidate for vaginal breech birth? Considerations include looking at the estimated birth weight, the size of baby’s head, whether its one baby or multiples, and whether the woman has already had a baby vaginally and has a “proven pelvis.”

Good care also includes capping the amount of time the woman can be in labour, and promptly switching to a C-section if necessary. That helps avoid complications that can come up during birth – such as cord prolapse, or the baby’s head being stuck in the birth

canal.

If women are classified as good candidates for a vaginal breech birth, it's really up to them if they want to choose to try that or to book a C-section. Most women choose a C-section, says Berger. That's mostly out of fear for their baby. "When I describe what happens when it goes wrong … that's what does it," he says.

But others to try a vaginal birth. "Some of these women are planning home births, they suddenly find out they're breech, and then they're told oh sorry, that's normally done by C-section," says Daviss. "They almost always say, well, can I try it vaginally?"

Unfortunately, some of those women won't have access to a provider with enough hands-on experience to do a vaginal birth. Berger says that even if his patients decide to do a vaginal breech delivery, it's not uncommon for them to arrive at the hospital, discover that the obstetrician on call isn't experienced with it, and opt for a C-section instead.

That's because since the shift towards C-sections in 2000, many physicians have lost their experience doing vaginal breech delivery – what some describe as the "deskilling" of obstetricians.

Midwives and family doctors are even less likely to have the needed experience. And even experienced midwives, like Daviss, are also obligated to transfer care to an obstetrician at all hospitals across Canada – except in Ottawa's Montfort Hospital, where Davis has privileges.

In contrast, when she does deliveries at the Ottawa Hospital, Daviss can stay in the room and do the delivery, but the OB is technically in charge. "It becomes problematic to me that when I'm in a hospital where the physician doing the delivery doesn't have the experience, isn't sure what to do or runs into trouble, that I'm prevented from directing the delivery instead to prevent a bad outcome," said Daviss.

Barrett sees it differently. "There is a move by the midwife profession to do breech births, and twins, and even assisted Cesarean sections," he says. "Personally, I think midwifery is best suited for low-risk birth and breeches and twins are not low-risk. This is high-risk obstetrics, and I think midwives are not best suited to it, the same way I would say it shouldn't be done by a family doctor either." He does point out that in situations where there is no OB available, it might be appropriate.

This is a sensitive subject, because there have been turf wars around other mandatory transfers of care for more minor interventions, such as inducing a head-down baby. "Our regulatory bodies should be the appropriate place to tell us what our scope of practice is; it should not be up to individual hospitals to restrict it," says Elizabeth Brandeis, the president of Association of Ontario Midwives. That said, she feels that breech birth is unique, because

of the limited number of midwives who have the expertise to do it. “Ideally,” she says, “we’d receive mentorship from those obstetricians who are more experienced, to help us develop that capacity in the future.”

This transfer of care issue was key for Jamie McCallum, the mother with two breech babies. She originally pushed for a home birth before Daviss convinced her to go to The Montfort Hospital instead, explaining that she could keep control through the whole birth.

In the end, that’s just what happened – after labouring at home for a day, McCallum went to the hospital at 2:30 in the morning, and gave birth easily two hours later with Daviss. It was just what she wanted. “It was amazing,” she says. “It was like the most awesome seven hours of my whole life.”