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A Review on Normal Birth and Cesarean Birth: What is at Stake for Mother and Babies?

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Abstract
We reviewed the risks and benefits of vaginal and cesarean delivery to help frame the inherent tradeoffs that should be considered as part of the informed consent discussion between patients and providers. We performed a targeted literature review for common complications of childbirth. Approximately 30% of women will experience a maternal or neonatal complication during childbirth. Both cesarean and vaginal delivery is associated with well-known measurable short- and long-term maternal and neonatal complications and benefits. Childbirth is not risk free. There are data available that can guide the informed consent process with objective quantifiable data that patients and providers can use to weigh risks and benefits of delivery methods. This Review also aimed to identifying the contribution of the research published in both national and international journals regarding women's perception of vaginal birth versus caesarean section. The results indicate aspects of care that may contribute to women's satisfaction and the need for further research in order to better understand the multidimensionality of the delivery process, whether vaginal birth or cesarean section.
Keywords: *Vaginal and cesarean delivery, Labor and delivery complications, obstetric quality and safety.*

Introduction

Rates of cesarean delivery continue to raise worldwide[1-5], with recent reported rates of 24.5% in Western Europe, 32% in North America, and 41% in South America. In the presence of maternal or fatal complications, cesarean delivery can effectively reduce maternal and prenatal mortality and morbidity. However, an increasing proportion of babies are delivered by cesarean when there is no medical or obstetric indication .The short term adverse association of cesarean delivery for the mother, such as infection ,hemorrhage, visual injury and venous thromboembolism have been minimized to the point that cesarean delivery is considered as safe as vaginal delivery in high-income countries ,there is an increased risk of adverse short term maternal outcomes even with cesarean delivery without medical indication. An operative procedure that is carried out under anesthesia where by the fetus, placenta and membrane are delivered through an incision in abdominal wall and the uterus. Usually carried out after viability has been reached i.e. 24-48 weeks of gestation onwards. Uterine ruptures is an uncommon but potentially catastrophic outcome of pregnancy where the integrity of

myometrial wall is breached .Ruptured uterus still remains one of the serious cause of maternal and morbidity. In the past 20 years, VBAC has been encouraged but recent studies reporting an increased incidence of uterine rupture and prenatal mortality. Vaginal delivery is a natural process that usually does not require significant medical intervention. Spontaneous vaginal delivery at term has long been considered the preferred outcomes for pregnancy. Because of the perceived health, economic, and social benefits derived from vaginal delivery, lowering the cesarean delivery rate has been in United States. The overall objective taking care of women during childbirth is creating a positive experience for a women and her family while preserving their physical and psychological health, preventing of morbidity and reaction to the emergency situation.

Types of Delivery [5-12]

❖ **Vaginal Delivery**

When a baby is born through the birth canal of a woman's body, that delivery is termed as a vaginal delivery. It may or may not be assisted with epidurals or pain medication. The exact time of birth cannot be presumed in such a case, but most births tend to happen once 40 weeks of pregnancy have been completed.

Most doctors recommend for having a vaginal birth if there is a possibility for it and going for cesarean is advised against. For mothers planning to have multiple children, vaginal births are highly recommended. When done with an incision above the anal area, the procedure is called episiotomy.

With vaginal deliveries, mothers can recover from the stress of delivery in shorter time and, hence, can return home with their babies soon. The chances of infection in such cases are lower than others. The baby, too, has a lower chance of suffering from any breathing problems if born via the vagina.

❖ **Natural Childbirth**

This is one of the types of birth that is steadily gaining popularity. In this method, there are no medical procedures or invasive therapies involved, and all processes take place in the most natural manner possible. This is mostly a personal choice and a mother needs to be committed throughout the way.

Various exercises and positions are taken into account while carrying out delivery in natural ways. A midwife usually stays with the mother to ensure the delivery is successful and the mother stays in good spirits. The delivery can take place at the hospital or even in your home, with all preparations done beforehand.

Natural birth can be extremely empowering for a mother. Having skin to skin contact with the baby immediately after delivery can foster a strong bond between the mother and the child. It also triggers hormones in the body that start producing milk in the breasts right away.

❖ **Cesarean Section**

Not everything always goes according to plan in real life. One might want to undertake vaginal delivery but complications could arise. In such a case, cesarean delivery is an option that might be taken.

In this delivery, the baby is delivered by opening up the abdomen of the mother and surgically opening the uterus to remove the baby. The type of the cut is called a C-section, is how the delivery method gets its name.

Many mothers decide to have cesarean in advance, which allows the hospital and doctors to start making preparations accordingly. This could be out of choice or even after sonography has revealed certain parameters which make it necessary to undertake a C-section, such as the presence of twins or triplets, or a very large baby.

In other cases, if vaginal delivery fails or any complication arises, such as breech position while delivering or obstruction in the birth canal, the doctors will have to quickly resort to undertaking a C-section and removing the baby out of the uterus in time.

❖ **Forceps Delivery**

This is a rather peculiar type of delivery method and is required in certain cases of vaginal birth. This is an addition to the usual vaginal

delivery when the baby is on its way via the birth canal but fails to fully emerge out. This could be because of any small obstructions, or the mother being tired and losing consciousness, hence unable to push the baby out.

In these cases, a doctor makes use of specially created tongs, which resemble forceps and insert them slowly in the birth canal. These are then used to gently grab the baby's head and start guiding it outwards through the canal.

❖ **Vaccum Extraction**

Similar to forces delivery method, this type of delivery technique is again used in the case of a vaginal birth. The baby is on its way out but somehow has stopped moving any further through the canal. The doctors then make use of a specialized vaccum pump which is inserted up to the baby via the canal. The vaccum end has a soft cup which is placed on the top of the baby's head. Vaccum is created so that the cup holds the head and the baby is gently guided outwards through the canal.

❖ **Vaginal Birth after Cesarean (VBAC)**

Most of the times, once a woman has had a cesarean delivery, her chances of having vaginal deliveries after that are pretty much nullified. But in recent times, certain techniques are making it possible for women to have successful vaginal deliveries even after the previous delivery had been a C-section. This is termed as VBAC or vaginal birth after cesarean.

Smaller hospitals do not opt for VBAC since an emergency C-section could suddenly require more staff and resources which may not be always possible. Also, any previous complications during delivery or any conditions in the mother could make the doctor advice you against a vaginal delivery.

Future advantages of cesarean delivery for Mother

- Lower risk of urinary incontinence and pelvic prolapsed.
- Lower the risk of birth injuries such as asphyxia,(oxygen deprivation),shoulder dystocia, fractures.
- Prevent pelvic floor disorder.
- Safe option to save both mother and fetus during complication.
- Lowers the pain of contraction.

Future disadvantages of cesarean delivery for Mother

- Increase the rate of miscarriage and placenta previa.
- Increase bowel or bladder injuries and excessive bleeding.
- Decrease of pelvic organ prolapsed after cesarean delivery (5.6%) and (6%) in vaginal birth.
- Increase loses of blood.
- Rate of infection is high (1:12).
- Increase risk of adhesions (bonds of scar tissue).
- Increase of anesthetic (headache, nerve damage).
- Lower breastfeeding rate.
- Increase recovery time and more difficulty.
- Avoid lifting, driving for first six weeks.
- Suffer from sub fertility and trouble conceiving in future (43%) and (32%) in vaginal birth.

Disadvantage for Baby

Increased risk of asthma for up to 12 years.

- C-Section (3.1%)
- Vaginal Birth (3%)

Increase the risk of obesity for up to 5 years of age.

- C-Section (12.5%)
- Vaginal Birth (9%)

Bacteria are more susceptible to health problems, leads to allergy, hay fever, asthma, etc.

Increase risk of Tachypnea of the Newborn (TTN).

Advantages of vaginal birth for Mother

- ✓ Reduce the risk of miscarriage, less problem in future pregnancies.
- ✓ Increase fertility rate.
- ✓ Can perform regular work within a couple of days.
- ✓ Increased breastfeeding rate.

Advantages for Baby

Baby will receive a beneficial bacterium that contribute to its gut health and boosts its immune system.

- ✓ Normal breath with less respiratory problems.
- ✓ Less instances of allergy and begins breastfeeding earlier.
- ✓ Baby inhales the good bacteria on coming out of the womb which helps in boosting the immune system.

Disadvantages of vaginal birth for Mother

- ✓ Delivery time remains uncertain and no particular schedule.
- ✓ Post vaginal delivery problems.
- ✓ Excessive blood loss.

Disadvantages for Baby

- ✓ When baby is large, it might need suction cups or forceps which harms the baby body parts.

Recommended Ways to Avoid a Caesarean Birth [13-17]

Choose your health care provider carefully. It helps to know the statistics of the number of C-sections by the doctor, his views on both vaginal and C-section childbirth and also the mortality rates, and these details can help with making the choice. Hiring doula who are professionals on pregnancy and childbirth can help with additional assistance during your pregnancy and also give you guidance to induce labour with fewer complications. Going for birthing classes which teach breathing exercises and give pointers on how to get through labour in a natural manner without any medication is a good idea. Having a healthy balanced diet and regular exercising increases you chances of being prepared for a vaginal birth. Both these ways of childbirth have their pros and cons, and before making the choice, parents should consider the factors and consult with their health care provider. Although natural birth is a less invasive and traditional way, going into labour can be a painful and stressful process. Also even after opting for vaginal delivery, there are chances of things not going as per plan and the doctor may have to perform an emergency C-section. Natural delivery and C-section are both techniques which have been around for a while and are well tired and tested.

- ➢ Practice perineal massage

If you're a first-time mum, there's some evidence that you can reduce your chances of having an episiotomy by massaging your perineum in the last weeks of your pregnancy. Perineal massage prepares your perineum for the stretching it has to do when your baby is born.

Perineal massage once or twice a week in the last weeks of pregnancy is more effective than every day. But it doesn't appear to make any difference to your chance of episiotomy if you've already given birth vaginally before.

- ➢ Turning techniques

If your baby is breech (bottom down) in late pregnancy you will be offered a caesarean. Before you get to that point though, you should be offered External Cephalic Version (ECV). ECV involves your obstetrician trying to turn your baby head down by pushing with her hands from the outside. It's offered from 36 weeks of pregnancy. You could also try some self-help methods to turn your baby. If your baby doesn't turn, you can still try for a vaginal breech birth, although most breech babies in the UK are born by caesarean.

- ➢ Try to avoid induction, if possible

Induction of labour tends to mean more interventions, such as continuous monitoring, epidural for pain relief and a lower chance of having a straightforward birth.

If you and your baby are healthy, but your pregnancy has gone overdue, check with your midwife or doctor that any recommendation of induction is based on your individual circumstances, not just your hospital's policy.

- Stay at home until you're in active labour

Being admitted to the labour ward while you're still in early labour is likely to increase your risk of interventions. Such interventions include the need to speed up your labour later on and the need for medical pain relief, such as an epidural. Because of this, it's likely that you'll be advised to stay at home until you're in active labour. There are lots of coping strategies for early labour at home while you wait for signs of progress.

Precautions for first Time Parents [40 - 46]

You've gone through pregnancy, labor, and delivery, and now you're ready to go home and begin life with your baby. Once home, though, you might feel like you have no idea what you're doing!

These tips can help even the most nervous first-time parents feel confident about caring for a newborn in no time.

Getting Help after the Birth

Consider getting help during this time, which can be very hectic and overwhelming. While in the hospital, talk to the experts around you. Many hospitals have feeding specialists or lactation consultants who can help you get started nursing or bottle-feeding. Nurses also are a great resource to show you how to hold, burp, change, and care for your baby.

For in-home help, you might want to hire a baby nurse, postpartum doula, or a responsible neighborhood teen to help you for a short time after the birth. Your doctor or the hospital can help you find information about in-home help, and might make a referral to home health agencies.

Relatives and friends often want to help too. Even if you disagree on certain things, don't dismiss their experience. But if you don't feel up to having guests or you have other concerns, don't feel guilty about placing restrictions on visitors.

Conclusion

This integrative review regarding the perception of women who experienced vaginal birth and/or cesarean section reaffirms the importance of the type of delivery in their lives, impacting them deeply with different perceptions and opinions regarding the method of childbirth. Such perceptions include physical, emotional and socio cultural aspects that need to be respected in terms of the individuality and integrity of every human being. The synthesis of the studies analyzed reveals the production of scientific knowledge that reflects the experience of woman's role-playing, among the positive aspects discovered regarding vaginal birth. This role-playing was associated with emotional and socio-cultural aspects described as a unique and relevant experience beyond the physical experience, which leads to personal growth, to building a new identity, and the status of being a mother. These factors are associated with the emotion of the first meeting with the child, and bring greater satisfaction with a natural birth. Among the positive physical aspects highlighted in the natural birth, we found lower levels of postpartum pain, faster recovery and quicker return to their daily activities. In cesarean section, the positive perceptions were associated with physical events such as absence of pain, a more rapid procedure and the possibility of setting a date and/or performing a tubal ligation at the same time. The positive perceptions associated with emotional and sociocultural aspects are described as having greater control over the birth, avoiding fear of labor and induction of labor, being a pleasant experience and enjoying the child with safety.

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