Unique Case of a Tenth Cesarean Section in an Emirati Woman

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Abstract
Cesarean deliveries have risen significantly over the past few decades due to advanced maternal age, defensive obstetric practice, medico-legal concerns, and maternal request. A cesarean section is a life-saving surgical procedure when certain complications arise during pregnancy and labor. However, it is a major surgery and is associated with immediate maternal and perinatal risks and may have implications for future pregnancies as well as long-term effects that are still being investigated. A major obstetric hazard of repeat cesarean section is the increased risk of uterine scar rupture during pregnancy resulting in high fetal and maternal morbidity and mortality. Also, there are increased risks associated with placenta previa and placenta accreta spectrum. We present a unique case of a woman who underwent her 10th cesarean section which was uncomplicated.

Introduction
The risk of morbidity due to cesarean section generally increases with the number of cesarean sections, as do the incidence of scar dehiscence, adhesion formation, placental problems, and bladder injury [1]. Although not life threatening, multiple repeat cesarean sections are associated with higher risks of adhesion occurrence, higher number of blood transfusions, and increased operation time and length of hospital stay; despite all that, there is no remarkable difference in serious morbidity associated with multiple repeat cesarean sections [2]. It is necessary for the physician and the patient to be aware of maternal morbidity associated with multiple cesarean sections. The long-term complications associated with the cesarean section should be discussed with the patients in the first and subsequent pregnancies. This is achievable through a combination of optimal prenatal care, effective patient counseling on the risks of multiple cesarean sections, adequate preoperative preparation, maintenance of meticulous surgical techniques and careful postoperative follow-up. Nevertheless, the general risks associated with operative delivery and frequently repeated pregnancies remain real and patients must be made aware of these.
view of these risk factors, many clinicians suggest sterilization to women following 2 or 3 cesarean sections due to the risk of uterine rupture and several complications. Therefore, those women who are given the chance of a 4th cesarean section are rather exceptional. However, in countries where large families are encouraged by social and cultural factors, any attempt to limit the cesarean section to 2, 3 or 4 is likely to be rejected. In addition, there has been an ongoing debate about the recommended maximum number of cesarean sections that a woman may safely have [2]. Arabic countries are such an example where patients are not deterred by the risks of multiple cesarean sections.

Case Report

We present the case of a 40-year-old woman, gravida 10, para 9 + 0; all deliveries were by lower segment cesarean sections; she is fit and well and is followed up regularly in the antenatal clinic; her last delivery was exactly 1 year from this delivery at 36 weeks of gestation.

This pregnancy was uneventful, fetal growth was normal and the placenta was upper posterior. The patient had been counseled thoroughly for tubal ligation during her antenatal care in view of the complications associated with a higher number of repeated cesarean sections, but she refused.

The cesarean section was done at 36 weeks + 3 days. It was an uncomplicated smooth surgery. There were no abdominal wall adhesions, and there was scar dehiscence with only the peritoneum covering the lower segment. She delivered a healthy baby boy who was in good condition, weighing 2,550 g with an Apgar score of 9 and 10.

The patient’s subsequent postpartum clinical care was uneventful. She was advised again on the use of laparoscopic tubal ligation versus different contraceptive methods, especially long-acting ones as an alternative good method; she agreed on oral contraception. The patient was discharged on day 4 in good condition.

Four months later, she was seen in the gynecology clinic, and was again advised in detail on the various contraceptive options. She was explained the risks related to another future pregnancy, especially the risk of a uterine rupture, abnormal placentation and the comorbidities associated with them; despite that, she was happy to continue on oral contraception. Since then she had been lost to follow-up.

Discussion

The rate of cesarean sections has increased over decades due to an increase in maternal age and the uses of reproductive technology and it will even continue to increase [3].

The World Health Organization has long recommended that the ideal cesarean section rate should be between 10 and 15%. The rate of cesarean sections is different throughout the world; in our hospital, the rate increased from 25 to 37% in the last 10 years due to an increase in the number of repeated cesarean sections, and so did the risks of placenta accreta in our hospital from 0.19/1,000 to 3.8/1,000 births.

Complications associated with cesarean sections increase with the number of the cesarean sections carried out, which varies considering the different time points, i.e., the antenatal period, the intrapartum period and the postpartum period. During the initial antenatal period, there is a risk of scar ectopic pregnancy; later as the pregnancy advances, there is a risk of placenta previa and placenta accreta spectrum and uterine rupture. Intrapartum complications are scar dehiscence, uterine rupture, intra-abdominal adhesions, injury to abdominal viscera (especially bladder, bowel or the ureter), massive bleeding especially from placenta previa and placenta accreta spectrum, leading to massive blood transfusions, cesarean hysterectomy and inadvertent admission to the intensive care unit. Postpartum complications include postpartum hemorrhage, infections (both uterine and extra-uterine) and deep vein thrombosis. All those complications increase the maternal and fetal morbidity and mortality. Placenta previa and placenta accreta spectrum are among the commonest complications [4–8]. In fact, the risks of placenta previa with previous cesarean sections increase from 4.5% with 1 previous cesarean section, to 7.4% with 2 previous cesarean sections, to 6.5% with 3 previous cesarean sections, and to 44.9% with 4 or more previous cesarean sections [1].

The risk of peripartum hysterectomy during the fourth cesarean delivery is 1 in 40, increasing to 1 in 11 at the sixth cesarean delivery; however, there are insufficient data on which to base the recommendations for the “safe” number of repeat cesarean sections [9]. This is because the degree of adhesion formation after a cesarean delivery varies widely among individuals and is unpredictable. The presence of massive adhesions can make the surgery and the delivery of the baby challenging, with an increasing risk of birth asphyxia, visceral injuries, and blood loss.

It was indeed fortunate for us that our patient did not have all those anticipated complications, only scar dehiscence which was, however, uncomplicated. But as there is a trend towards an increasing number of repeat cesarean deliveries, all these factors have to be kept in mind while counseling those women, and they should be fully aware of the expected complications which can affect both themselves and their newborn babies.
Conclusion

In spite of a paucity of data about outcomes of repeat cesarean sections, performing cesarean sections is challenging. It necessitates special techniques and proper advising about all the risks associated with the surgery. Patients should have proper antenatal care; careful evaluation during labor in order to prevent a primary cesarean section is the best preventive measure for repeat cesarean sections. Those women requesting repeat cesarean sections (more than 4) should be counseled properly and all the options of contraception, including permanent methods and long-acting reversible methods, should be discussed at every antenatal visit.

Further studies to evaluate patient factors which contribute to the improvement of surgical outcomes would be important, and more studies on repeat cesarean sections are needed in order to provide personalized counseling to each patient.

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Statement of Ethics

The patient gave written consent to share her case.

Disclosure Statement

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