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Case Report

Can we have many C-sections

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ABSTRACT

The rate of cesarean section is increasing worldwide. It decreases maternal and fetal mortality when complications happen. However, it is a major surgery that could be associated with maternal and fetal risks especially after repeat cesarean deliveries. We report a case of a woman who had her 9th C-section.

Keywords: C-sections, Complications, Indications, Risk

INTRODUCTION

Cesarean section (C-section) is one of the most frequent surgical procedures whose rate is increasing worldwide. The Dominican Republic and Brazil have the highest C-section rates being 56.4% and 55% respectively. Similar trends of increasing rates were observed in Egypt (51.8%), Iran (47.9%), Turkey (47.5%) and Mexico (45.2%).[1] There are several reasons for this drastic increase. Some of the reasons are associated with the physicians. Their professional experience and training, time-convenience, financial incentives, fear of litigation as well as defensive medicine lead to increased C-section rates.[2,3] Other reasons are related to the women's demand for C-section. For example, women request to have C-section to avoid going through labor pain and to be involved in the decision-making process since they can choose the date and even the time to undergo C-section.[2]

C-section decreases maternal and perinatal mortality when complications occur during pregnancy and labor. However, it is a major surgery that could be associated with maternal and perinatal risks and could affect future pregnancies.[4-6] Although a single C-section might not be terribly risky, even two c-sections might be tolerable, but how many C-sections are too many? We report a case of a woman who had her 9th C-section.

CASE REPORT

A 33-year-old multi gravida G9P5A3L5 woman at 39 weeks' gestation (weight 70 kg, height 157 cm) presented for her 9th repeat C-section. The patient's history goes back to her first delivery which was complicated by failure to descend; thus, she had a C-section. However, the baby passed away after 4 days. Her second, third, fourth and fifth c-sections were uncomplicated. After her 6th C-section, the baby passed away at 1 week of life. Her 7th pregnancy was complicated by intra-uterine fetal death, intra-uterine growth restriction and placenta abruption. For her 8th pregnancy she had c-section and the baby survived.

Her 9th C-section was smooth without any complication. Under general anesthesia, she was put in supine position and the abdomen was dissected layer by layer until the peritoneum was reached. Adhesiolysis was done till full liberation bladder flab created lower segment uterine incision extraction of a live new-born delivery of the placenta closure of uterus in 1 layer of fascia hemostasis secured closure of skin by caprosyn. Legation of the tube is done.

The patient tolerated the procedure and left the operating room in good condition with no complications. A healthy

male was delivered weighing 2,780 g with Apgar score 9/10 at one minute and 10/10 at five minutes. The patient breast-fed the new-born and both were discharged from the hospital after two days in stable condition.

DISCUSSION

There is no specific answer to the question how many cesarean sections are too many since the answer varies among different women. There are a limited number of studies that have investigated patients with eight or more previous C-sections.[7] Although increasing the number of C-sections had been associated with maternal and fetal morbidity; yet, some studies concluded that four or more C-sections do not have greater risk for the mother and the fetus compared to lower order repeat C-section.[7-9] Nevertheless, the woman's age, weight and general health conditions play a role in maternal complications after C-section.[8,10] Some women who had several C-sections with no complications could still develop future complications such as abdominal adhesions.[8] The intention is to limit risks as much as possible when having C-section. To help minimize these risks physicians recommend, on average, that a woman have no more than three C-sections.[11]

Since C-section is a surgical procedure accompanied by abdominal and uterine incisions, the risk of dehiscence and rupture is increased. The type of uterine wall incision depends on fetal and maternal presentation.[2] The low transverse uterine incision is the most common type of incision because the incision is easier to repair. This reduces operative complications such as hemorrhage, morbidity, and incidence of uterine dehiscence or rupture in subsequent pregnancies. The second type of uterine incision is the low vertical incision. It is performed in certain situations such as during delivery of a preterm infant where the lower uterine segment may be poorly formed; hence, the vertical incision may facilitate delivery and decrease morbidity due to improved surgical access. The third type of uterine incision is the high vertical incision (classical incision). It might be used when the fetus is in a transverse position, during preterm delivery, or if there is an anterior placenta previa. However, it could be associated with more hemorrhage and the repair might necessitate a three-layer closure since the myometrium is thicker in this part of the uterus.[12] The patient presented in this case report had all 9 C-sections with a low transverse incision.

C-section is medically indicated when there is a significant risk of adverse outcome for the mother or fetus.[2] These indications include: repeat c-section, multiple gestation, macrosomia, non-reassuring fetal heart rate, malpresentation, arrest of labor dilation or descent including failed forceps and vacuum, hypertensive disorders such as preeclampsia, eclampsia and HELLP, in addition to maternal, fetal, and obstetric indications. Malpresentation comprise face presentation, breech presentation, transverse lie and unstable lie. Maternal indications are conditions that could complicate delivery such as cardiovascular disease and infection (Human Immunodeficiency virus, Hepatitis C virus, Herpes Simplex virus). Fetal indications are antenatal problems occurring before the intrapartum period (intra-uterine growth restriction and fetal anomalies). Obstetric indications are conditions pertaining to the current intrauterine pregnancy such as placenta accreta, previa, and abruption, as well as cord prolapse.[13] Although some of these indications depend on the physician's interpretation or action in response to the situation; yet, the decision for C-section is taken by balancing the risks and benefits to the mother and baby. The patient in this report had cesarean delivery due to repeat C-section.

Several maternal risks are associated with c-section. Adhesions are one of the common complications after c-section. Increasing the number of c-sections increases the adhesion rate and intensity.[8] The rate of adhesion in women who had had five or more CSs was about 54%.[7,8] Adhesions mostly occur between the uterus and bladder or anterior abdominal wall.[14] Adhesions are associated with several maternal morbidities. For instance, adhesions could prolong operative and delivery times. This delay could have adverse effects especially in the case of fetal distress.[14] Adhesions between the bladder and uterus can also result in bladder injury.[14] Adhesions can also cause chronic pelvic pain; however, this is generally associated with other diseases such as endometriosis and pelvic inflammatory disease.[15] Moreover, the incidence of small bowel obstruction is increased after C-section.[16]

Another common maternal complication due to C-section is placenta abnormalities. These include placenta previa, abruptio placenta, and placenta accreta. The risk of abnormal placenta increases with multiple C-sections with rates of around 70% for placenta accrete and 10% for placenta previa.[7] The patient in this case report had placenta abruption after her 7th C-section.

Furthermore, the risk of uterine rupture increases after repeat C-section leading to maternal and fetal morbidity and mortality. The risk occurs if the previous c-section internal scar or incision tears or breaks open during pregnancy or labor.[7] Bleeding is another morbidity that is higher after C-section than normal vaginal delivery.[8] The risk of excessive bleeding increases with the number of repeat C-sections. The risk of hemorrhage requiring a hysterectomy to control life-threatening bleeding also increases with multiple C-sections.[11] C-section could also result in wound infection and endometritis.[17]

In addition, repeated cesarean birth is associated with fetal complications in comparison to normal vaginal delivery and the first C-section.[11] Fetal risks include prematurity, low, Apgar scores and breathing difficulties.[17]

CONCLUSION

In summary, each repeat C-section is generally more complicated than the previous. The risks usually increase after the third C-section. Vaginal deliveries are not recommended after two C-sections. However, guidelines have not established the exact number of repeat C-sections that is considered safe.

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