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Forceps delivery after two previous Caesarean sections

Caesarean delivery is the most frequently performed operation in current obstetric practice. Uterine rupture occurs more frequently among women undergoing a trial of labor than among those undergoing elective repeat Caesarean section. But in selected cases reasonable women may consider a trial of labor after a prior Caesarean delivery. Such decisions must be discussed with physicians. A woman must obtain information about risks and benefits of attempting a vaginal delivery after Caesarean section, and she must make the decision for herself.

To estimate the probability of a successful trial of labor we should identify all risk factors for uterine rupture before the delivery. In connection with recent findings suggesting the need to curb the rising Caesarean section rate, we present the rare case of forceps delivery after two previous Caesarean sections.

CASE REPORT

In October 1995, a 33-year-old pregnant woman with initial uterine contractions was admitted to the Department of Obstetrics and Pathology of Pregnancy at Medical University of Lublin. The diagnosis was: *IV Graviditas 40 hbd. Status post duam sectionem caesaream, anno 1990 et 1991 factam.* There was a history of one spontaneous abortion. The first Caesarean section was performed because of breech presentation, and the second because of impending uterine rupture after Caesarean section. Both children are healthy. No complications have been observed on physical examination during present pregnancy. During each follow-up prenatal care visit, blood pressure, weight, urinalysis, morphology, ausculation of the fetal heart was performed and assessed. Pregnant woman presented initial uterine contractions. The lie of the fetus was longitudinal in cephalic presentation. The membranes were ruptured, and cervix was almost fully dilated. Spontaneous contractions were observed without fetal distress during continuous FHR monitoring (Fig. 1). Obstetric management was careful and the woman was motivated for a vaginal delivery. The patient made the decision for herself, concluding that the risks are small, and accepted a vaginal route of delivery. After four hours of delivery weak contractions of uterus were observed. Cervix was fully dilated and FHR monitoring was correct. With contraindications taken into account, and continuous cardiotocographic monitoring, as well as operative readiness secured, careful application of oxytocin was applied. Obstetric examination showed normal progression of labor until the second stage, when the fetal distress was manifested (Fig. 2). At that time we decided to complete the labor using forceps. All prerequisites were fulfilled for the successful application of outlet forceps. A male infant weighing 2920g with 1st minute Apgar score of 10 was delivered. In the same analgesia the revision of a uterine scar was done. We detected 4 cm-long dehiscence of uterine scar. Because of an uncomplicated hospital stay without vaginal bleeding and

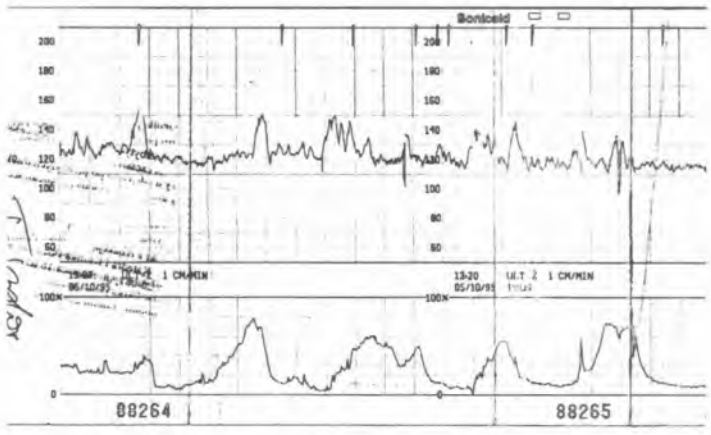

Fig. 1. FHR monitoring – the first stage of labor

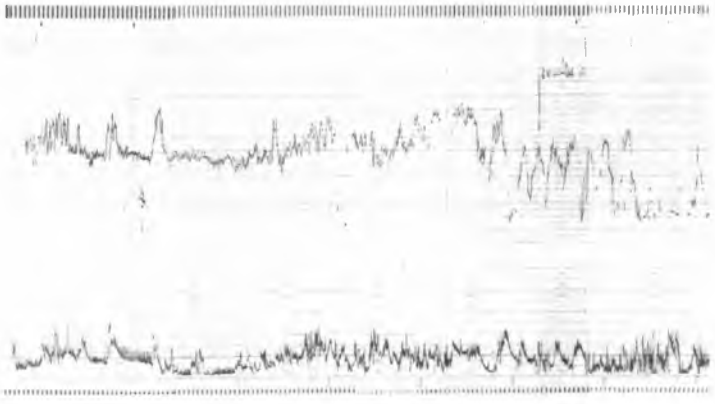

Fig. 2. FHR monitoring – the second stage of labor

normal range of coagulation parameters conservative management has been introduced with antibiotic prevention. The mother and her child were discharged from hospital on the third postpartum day without any disorders.

DISCUSSION

The rate of subsequent cesarean sections has constantly been on the rise. But in rationalized cases the practice of vaginal delivery after Caesarean section may curb the rising cesarean-section rate in contemporary obstetrics (2). The review of literature suggests that a trial of labor in patients with more than one previous Caesarean delivery is acceptable in most cases. Obstetric management should be individualized. If women are carefully selected for a trial of labor and closely supervised, the risk of serious complications can be minimized and successful outcome achieved (1, 5). The most frequent complication is rupture of the uterine scar. At present, there is no sufficient predictive method of identifying such women. Unfortunately, we had to face this problem. Careful monitoring as well as operative readiness allowed us to treat our patient.

Routine revision of uterine scars at the time of a subsequent vaginal delivery is controversial. Kaplan et al. reviewed 467 women who underwent vaginal delivery after Caesarean section. In 414 patients the scar was examined, and no case of dehiscence of the scar was observed. Prostaglandin E_2 was used in 46 patients, and in 14 cases labor was induced by oxitocin (3). Recent investigations into the effects of contraction agents have produced inconsistent results without a clear message. A different opinion was presented by Green (2). The risk of uterine rupture was 4.5 per 1,000. These rates were significantly higher than the 1.6 per 1,000 among women who had repeated Caesarean sections without labor. The most considerable was the uterine rupture rate of 24.5 per 1,000, when labor was induced with prostaglandin (2). Thus, efforts to improve the safety of vaginal delivery after Caesarean section have focused on attempts to identify risk factors for uterine rupture (2, 4).

Trial of labor may also result in small increases in the number of fetal and neonatal deaths. It was not possible to estimate what proportions of these deaths were related to uterine rupture and what proportions were attributable to other causes (4). In addition, available data on Apgar scores did not allow to control for anomalies or prematurity. In respect to this issue, Otoka and Dbowski have reported on a study in which general condition of the newborns after spontaneous delivery was better than that of babies born after Caesarean section (5).

Given the potential risks, why should a woman choose a vaginal delivery after prior Caesarean section? Such decisions must be discussed with physicians. A woman must obtain information about risks and benefits of attempting a vaginal delivery after Caesarean section, and she must make the decision for herself. With skilled and experienced doctors, as well as operative readiness secured, spontaneous delivery may be achieved. The reasons why women attempt vaginal delivery after Caesarean section are: less postpartum discomfort, shorter hospital stay, lower risk of fever and lower need for transfusion or hysterectomy (2, 4, 5). Women are also able to take care of their newborns at once. Some women who plan future pregnancies may prefer vaginal delivery to avoid such complications as placenta accreta and uterine rupture. There are also some social and cultural reasons (2).

CONCLUSIONS

Forceps delivery after two previous Caesarean sections seems to be a reasonable attitude if it is properly indicated and supervised.

REFERENCES

1. Bretelle F. et al.: Vaginal birth following two previous cesarean sections. Eur. J. Obstet. Gynecol. Reprod. Biol., 94, 23, 2001.
2. Greene M. F. Vaginal delivery after Caesarean section – is the risk acceptable? N. Engl. J. Med., 345, 54, 2001.
3. Kaplan B. et al.: Routine revision of uterine scar after prior Caesarean section. Acta Obstet. Gynecol. Scand., 73, 473, 1994.
4. Mozurkewich E. L, Hutton E. K.: Elective repeat Caesarean delivery versus trial of labor: meta-analysis of the literature from 1989 to 1999. Am. J. Obstet. Gynecol., 183, 1187, 2000.
5. Otoka A., Dbowski A.: The delivery through the natural passage after Caesarean section. Ginek. Pol., 65, supl. 2, 871, 1994.

SUMMARY

Caesarean section is one of the most frequently performed surgical procedures in current obstetric practice. There are several reasons for this upward tendency, including well developed hemotherapy, anesthesia, antibiotic treatment and skilled doctors. Despite such risks as uterine rupture, necessity of blood transfusion or the possibility of the necessity of ending the delivery by means of surgery, it is possible, in justified cases, to attempt spontaneous labor. A decision jointly made by the patient and her doctor, based on careful consideration of benefits and risks, as well as positive attitude on the woman's part may lead to positive outcome of labor. Taking the above factors into account we have decided to present a study of a difficult, operational labor after two Caesarean sections.

Poród kleszczowy po dwóch cięciach cesarskich

Cięcie cesarskie jest jedną z najczęściej wykonywanych operacji we współczesnym położnictwie. Na tendencję wzrostową ma wpływ rozwinięte krwiolecznictwo, anestezjologia, antybiotykoterapia, a także wyszkolenie zespołu lekarskiego. Pomimo takich zagrożeń, jak pęknięcie mięśnia macicy, konieczność podania preparatów krwiopochodnych czy możliwość szybkiego ukończenia porodu w sposób zabiegowy, można w uzasadnionych przypadkach podjąć próby porodu siłami i drogami natury. Wspólnie podjęta decyzja rodzącej i lekarza, wynikająca z rozważenia korzyści i ryzyka, a także pozytywnego nastawienia psychicznego pacjentki, może doprowadzić do ukończenia porodu w sposób naturalny. Biorąc powyższe pod uwagę, zdecydowano się przedstawić opis trudnego, operacyjnego porodu po dwóch cięciach cesarskich. W konkluzji możliwy jest zatem poród drogami natury po uprzednich dwóch cięciach cesarskich przy wnikliwym nadzorze klinicznym, korzystnych rokowniczo czynnikach i akceptacji pacjentki.