POLICY STATEMENT*
VAGINAL BIRTH AFTER PREVIOUS CAESAREAN BIRTH

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The policy "once a Caesarean, always a Caesarean" is no longer tenable. While rates from around the world vary from below ten percent to over 30 percent of total births,[1,2] in Canada approximately 20 percent of women giving birth do so by Caesarean section. In response to general concern about increases in Caesarean birth rates across Canada, a national consensus conference on aspects of Caesarean birth was held in 1985. A Canadian Consensus Statement on Caesarean Birth with guidelines for the appropriate use of Caesarean section was developed.[3] While this statement was endorsed by the Society of Obstetricians and Gynaecologists of Canada and the Association of Professors of Obstetrics and Gynaecology, and was widely distributed to physicians, hospitals, childbirth educators, and other interested parties, the effect was limited until implementation strategies were designed in 1991.[4,5] The vaginal birth after Caesarean section (VBAC) rates increased from three percent to 33 percent in the following years—the plateau and subsequent decrease in Caesarean section rates in Canada have been entirely due to the increase in VBAC rates.[6,7]

BACKGROUND

The success rate for labour and vaginal delivery following previous Caesarean section will vary from 50 to 80 percent, and will depend upon the knowledge and attitudes of both health care users and providers. Many women undergoing Caesarean section for dystocia in a first labour will subsequently deliver vaginally in safety and without difficulty. The slightly lower level of success of VBAC, following a primary Caesarean section for dystocia as compared with breech, may be more a reflection on the attitude of the woman and her caregivers than of

* Policy Statements: this policy reflects emerging clinical and scientific advances as of the date issued and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed. Local institutions can dictate amendments to these opinions. They should be well documented if modified at the local level.

uterine function. Numerous reports documenting the safety of labour and vaginal birth after Caesarean section have appeared in the literature over the past 30 years. These reports testify to the safety of the procedure with an incidence of "scar dehiscence," an opening of the scar without maternal or fetal consequence, of 0.5 percent. Maternal uterine rupture with haemorrhage and fetal compromise, or even death, occurs with an incidence of 0.1 percent.[8-11] The need for hysterectomy is rare. Overall fetal outcome compares favourably to that associated with uncomplicated pregnancy. For women achieving a successful VBAC, maternal morbidity is low, with fewer post-partum complications and a shorter hospital stay as compared with women undergoing Caesarean section. Accordingly, successful VBAC is associated with a significant reduction in health care costs as compared with elective repeat Caesarean section.

The effectiveness and safety of labour after previous Caesarean section are such that some authors suggest that it should be mandatory in the absence of contra-indications.[12-14]

Each hospital that provides obstetric care and is capable of performing an emergency Caesarean section is already equipped to be able to offer vaginal birth after Caesarean section. Hospital perinatal committees should review these guidelines and promote VBAC. Full participation of the patient in the decision is of supreme importance.[15,16]

RECOMMENDATIONS

A. FOR WOMEN WITH ONE PREVIOUS TRANSVERSE LOW SEGMENT CAESAREAN SECTION

1. A Trial of Labour

A trial of labour should be recommended when developing a plan of care. Respect for the woman's autonomy, her participation and the participation of her partner in decision making is of paramount importance. The trial of labour and VBAC should take place in a hospital/health centre. Physicians should follow the SOGC Policy Statement, "Attendance at Labour and Delivery Guidelines for Physicians" published in the Journal SOGC, September 1996. A process of informed consent with appropriate documentation must be part of the birth plan for any woman with a previous Caesarean section scar.[17]

2. Designation of Appropriate Hospital Facilities

Every hospital engaged in obstetrical care and capable of providing an emergency Caesarean section should be able to offer care for a woman undergoing labour after previous low segment Caesarean section. Staff at each facility should develop guidelines for management in such a situation. Women undergoing labour after a previous Caesarean must be made aware of the hospital resources and the availability of an obstetrical surgeon, anaesthetic services, and operating room personnel who may be required in an emergency.

3. Requirements for Antenatal and Intrapartum Notification/Consultation of Obstetrican/Surgeon

Antepartum consultation with an obstetrician is not mandatory. However, the primary care provider must determine the appropriateness of labour by reviewing the woman's previous Caesarean section operative report. Documentation of the location and type of uterine incision is mandatory. The advisability of antenatal specialist consultation may be influenced by local factors.

4. Contra-indications to VBAC

Contra-indications to labour following previous Caesarean section include:

a) previous classical, inverted T incision or unknown incision scar;[18,19]
b) previous hysterotomy;
c) previous myomectomy involving entry of the uterine cavity or extensive myometrial dissection;
d) previous uterine rupture;
e) presence of placenta praevia, transverse lie or any other contra-indications to labour.

5. Augmentation of Labour—Use of Oxytocin

Augmentation wih oxytocin is not contra-indicated, and the literature supports its use in carefully selected women with one previous low transverse incision.[8,9,13,20] As in all situations where augmentation is used, careful attention to monitoring the progress of labour is important. Caution should be taken in augmenting labour in a woman with a previous low segment section who arrests in the active phase of labour (late first stage or second

stage). Augmentation should only be undertaken when an immediate response to emergency events requiring Caesarean section can be mounted.

6. Induction of Labour

a) Oxytocin

Induction of labour increases the risk above that of spontaneous labour in a woman with a previous Caesarean section scar. However, induction with oxytocin is not contra-indicated.[21,22] A literature review of over 3,000 women who have received oxytocin with a previous low segment section suggests that, although the rates of scar dehiscence and uterine rupture are slightly increased compared with women in a similar situation entering spontaneous labour, the incidence is still small (1.8% dehiscence, < 0.5% for rupture). Oxytocin should be used after careful consideration of all other obstetrical factors. As with spontaneous labour, the availability of anaesthesia, operating room personnel, and obstetrical surgeons should be discussed with the woman prior to induction, and such a labour should take place in a hospital setting. Physicians should be guided by the SOGC Policy Statement entitled "Induction of Labour," published in the Journal SOGC in February 1997.[23]

b) Use of Prostaglandins

The safety of prostaglandin gel use in women with previous low segment sections has not been established and further research is needed. Prostaglandin preparations may be associated with very strong uterine contractions, and there are little data available on their use in women with uterine scars. At this time, if prostaglandin gel is to be used in the presence of a low segment Caesarean section scar, the woman must understand the limitation of knowledge in this area, and the immediate availability of physicians and resources to respond to an emergency must be provided.[21,22,24]

c) Foley Catheter

Insertion of a Foley catheter into the cervical canal, extra-amniotically, and inflating it, is an alternative method of cervical ripening. It is less expensive than prostaglandin gel, and can be deflated and removed immediately if undesirable side effects occur. It may be effective in ripening the cervix. However, there is no evidence to support or refute its ability to decrease the incidence of Caesarean section or instrumental delivery associated with induction.[23]

7. Fetal Monitoring

One of the most consistent early signs of scar dehiscence and/or rupture is an abnormal fetal heart rate pattern. Thus, in cases of induction and/or augmentation, continuous electronic fetal heart rate monitoring is advised. Intermittent fetal heart monitoring is to be reserved for cases in which neither induction nor augmentation with oxytocin is performed.

8. Twin Pregnancy or Breech Presentations

Twins—labour and vaginal delivery with twin pregnancy is not contra-indicated. Although there is limited information concerning labour following previous low segment Caesarean section and twin gestation, what data are available show no significant difference in maternal or fetal morbidity compared with singleton pregnancy.[25,26]

Breech—previous transverse low segment incision is not of itself a contra-indication to labour with breech presentation. As in all cases of breech presentation, careful obstetrical assessment is required prior to a decision to embark upon labour.[13,27]

9. Suspected Fetal Macrosomia

Published information does not suggest that a diagnosis of suspected macrosomia (estimated fetal weight greater than 4,000 grams) is a contra-indication to labour after previous low segment Caesarean section.[13,28]

B. FOR WOMEN WITH MORE THAN ONE PREVIOUS TRANSVERSE LOW SEGMENT CAESAREAN SECTION

Labour and vaginal delivery in women with more than one previous transverse low segment incision is an acceptable option, although there are less data available. Each situation should be carefully assessed. The incidence of scar dehiscence (less than 4%) is higher than that associated with one previous section.[8,10,19,29]

CONCLUSION

Every hospital equipped for obstetrical care should be able to offer women vaginal delivery after previous Caesarean section. These clinical guidelines will help each hospital to evaluate and complete their own protocols for vaginal birth after Caesarean section. Full participation of the patient in these decisions is vital.

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