South Australian Perinatal Practice Guidelines

Birth Options after a Caesarean Section

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Literature review

- The average success rate when vaginal birth after caesarean section (VBAC) is attempted is 70 % (Flamm et al. 1994; Appleton et al. 2000a)
- Compared with repeat caesarean section, women who give birth vaginally after a previous caesarean section have a lower morbidity and fewer post-partum complications (Flamm et al. 1994)
- In developed countries, the incidence of any type of uterine rupture after caesarean section is estimated to be 0.5 % to 1 % (Lynch et al. 1996; Enkin et al. 2000; Appleton et al. 2000a; Flamm et al. 1994).
- With appropriate care, 9 out of 10 uterine ruptures will be recognised and acted upon such that long term harm to both mother and / or baby can be avoided
- An Australian study has shown that, irrespective of whether oxytocin or prostaglandins are used, induction of labour and augmentation of labour in women with a previous caesarean section increases the risk of uterine rupture compared with spontaneous labour (Dekker et al. 2010)

Definition

- Vaginal birth in a current pregnancy after a caesarean section in a previous pregnancy (VBAC)

Incidence

- In 2008, 17 % of women giving birth in South Australia had had a caesarean section in a previous pregnancy. Only 17 % of these women had a vaginal birth in their current pregnancy (Chan et al. 2009)

Contraindications

- VBAC is contraindicated in the following circumstances:
  - Previous classical, inverted T incision or unknown incision scar.
  - Previous hysterotomy
  - Previous uterine rupture
  - Placenta praevia, accreta, increta, percreta
  - Previous myomectomy involving entry of the uterine cavity or extensive myometrial dissection
  - Transverse lie or other malpresentation contraindicating vaginal birth

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Precautions

- Advice should be individualised according to the woman's specific circumstances
- Prostaglandins for cervical priming are generally contraindicated for use in women with a caesarean section scar
- When induction of labour is deemed necessary in the presence of a uterine scar and an unripe cervix, careful consideration should be given to alternative options, such as postponing the induction or caesarean section

Antenatal care

- Women who present with a history of caesarean section require obstetric referral and counselling appropriate to their individual needs

Obstetric Review

- Should occur at first or second antenatal visit
- Exclude any medical / obstetric contraindication to VBAC
- Document suitability for VBAC in case notes
- Thorough review of previous births should take into account all contributing factors
- The review should take the woman's autonomy (ability to make her own decisions) into account. Any discrepancy between what is advised by her caregivers and preferred by the woman should be documented
- If VBAC is not advisable, offer appropriate counselling and advice regarding the timing of an elective caesarean section *(for further information refer to the PPG 'care of the woman having a caesarean section')*
- If the woman chooses repeat caesarean section (where VBAC has been advised by an experienced obstetrician as a safe option) this discussion and the woman's informed consent should be documented
- Explain surgical and anaesthetic risks of caesarean section, both short and long term if elective caesarean section is decided upon. Explain possibility (approximately 1 in 3) of emergency caesarean section if VBAC is chosen
- Assess the woman's emotional needs around the birth
- Recommend support groups as appropriate

36-38 week Obstetric review

- The decision for VBAC or elective caesarean section may be reviewed at the request of the woman or her primary caregiver

Management of women at 41 weeks or more

- A clinical assessment and opinion from an obstetrician should be sought for women who proceed to 41 weeks or more and require induction of labour
- The decision to induce labour, in a woman, who has had a previous caesarean section, should be based on a full history as well as clinical assessment. An unripe cervix, unengaged head or large fetus reduce the likelihood of vaginal birth. The final decision for induction or elective caesarean section should be an informed choice made by the woman guided by advice from her obstetrician and midwife

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Intrapartum care

- Ensure the hospital of choice is equipped with facilities for emergency caesarean section and transfusion
- Continuous midwifery support of the woman in labour
- Intravenous access once established in labour
- Group and save with access to prompt cross-match
- Use of the partogram to monitor progress of labour
- Any lack of progress in the first or second stage must trigger a complete clinical reassessment by an experienced obstetrician
- Continuous electronic fetal monitoring is recommended when the woman is in established labour. Several VBAC studies have reported that in over 70 % of cases of uterine rupture, the first signs or symptoms presented as prolonged fetal bradycardia. Of these cases, only 8 % presented with pain and 3 % with bleeding (Flamm et al. 1990; Farmer et al. 1991; Leung et al.1993; Menihan 1998; Lieberman et al. 2004, Martel et al 2004)
- If pain does develop an atypical pattern, particularly with unusual radiation (such as to the shoulder tips), or pain previously controlled by analgesia (epidural or otherwise) which becomes more severe, then complete clinical reassessment is required by an experienced obstetrician (Lieberman et al. 2004; Martel et al. 2004)

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References

1. Flamm B, Goings J, Liu Y and Wolde - Tsadik G. Elective repeat cesarean delivery versus trial of labor: A prospective multicenter study. Obstet Gynecol 1994; 83: 927-32 (Level III-2).
2. Appleton B, Targett C, Rasmussen M, Readman E, Sale F, Permezel M and the VBAC Study Group. Vaginal birth after caesarean section: an Australian multicentre study. Aust N Z J Obstet Gynaecol 2000a; 40: 87-91 (Level IV).
3. Lynch J and Pardy J. Uterine Rupture and Scar Dehiscence. A Five-Year Survey. Anaesthesia and Intensive Care 1996; 24: 699-704 (Level III-3).
4. Enkin M, Keirse MJNC, Neilson J, Crowther C, Duley C, Hodnett E and Hofmeyr J. A guide to effective care in pregnancy and childbirth, 3rd edition, Oxford: Oxford University Press; 2000. p. 358-71 (Level I).
5. Chan A, Scott J, Nguyen AM & Sage L. Pregnancy Outcome in South Australia 2008. Adelaide: Pregnancy Outcome Unit, SA Health, Government of South Australia, 2009.
6. Grant JM. Induction of labour confers benefits in prolonged pregnancy (Review). Br J Obstet Gynaecol 1994; 101: 99.
7. Flamm BL, Newman LA, Thomas SJ, Fallon D, Yoshida MM. Vaginal birth after cesarean delivery: Results of a 5 year multicentre collaborative study. Obstet Gynecol 1990; 76:750 (Level IV).
8. Dekker GA, Chan A, Luke CG, Priest K, Riley M, Halliday J, King JF, Gee V, O'Neill M, Snell M, Cull V, Cornes S. Risk of uterine rupture in Australian women attempting vaginal birth after one prior caesarean section: a retrospective population-based cohort study. BJOG 2010; 117:1358-1365.
9. Farmer RM, Kirschman T, Potter D, Strong T, Medearis AL. Uterine rupture during trial of labor after previous caesarean section. Am J Obstet Gynecol 1991; 165:996-1001 (Level IV).
10. Lieberman E, Ernst EK, Rooks JP, Stapleton S, Flamm B. Results of the national study of vaginal birth after caesarean in birth centres. Obstet Gynecol 2004; 104 (5pt1): 933-942.
11. Martel MJ, MacKinnon CJ. Guidelines for vaginal birth after caesarean birth. J Obstet Gynaecol Can 2004; 27: 660-83.

Abbreviations

VBAC	Vaginal birth after caesarean section
%	Percent
et al.	And others (et alii)

Version control and change history

PDS reference: OCE use only

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1.0	08 Mar 04	22 Oct 04	Original version
2.0	22 Oct 04	18 Jan 11	Reviewed
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