Views & Reviews

Vaginal Birth after Cesarean Section

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Increasing Cesarean delivery (CD) with its adverse consequences is a currently a major issue globally. One of the leading indications of cesarean section is repeat section in a women with previous CD. Therefore, the scope for vaginal birth after cesarean (VBAC) is a topic for debate and discussions.

The common belief that 'once a cesarean, always a cesarean', is a myth. It should be replaced by "once a cesarean, always a delivery in a well equipped Hospital".

Who are the Candidates for VBAC?

Singleton pregnancy with Cephalic presentation at 37 weeks or more of gestation who had a single previous lower segment cesarean section with / without previous vaginal birth and not having the contraindications is a suitable candidate.

What are the Contraindications?

ABSOLUTE contraindications are: Previous classical cesarean scar, previous uterine scar rupture, absolute contra indications of vaginal birth (Major placenta Previa, grossly contacted pelvis etc) — two or more previous section is not a contraindication to VBAC. They require opinion of senior obstetrician and they should be counselled regarding the risks and benefits.

RELATIVE contraindications are: women with 40 years or more of age, short inter-pregnancy interval, multiple pregnancy, macrosomia, post dated pregnancy, pregnancy with medical complications.

Antenatal Care for Women with previous CS

Women with previous CD should be considered high risk and needs to be thoroughly interviewed and examined in each antenatal visits.

Women with previous Cesarean delivery should be interviewed regarding the following specific points in order to individualize the feasibility of VBAC.

WHY It was done? Recurring or non recurring indication.

WHEN it was done? Elective or emergency?

WHERE it was done / WHO did it?

HOW was the post operative recovery?

WHAT was the type of Incision: If previous records are available, it is important to check whether T, J shaped incisions were required or any if any extension /tear occurred which relatively contraindicates VBAC.

The integrity of the scar is likely to be better if it was an elective section, done in a better equipped operation theatre and by a consultant and without postoperative complications. Indications as placenta previa, obstructed labor and post operative infection are likely to weaken the scar.

Standard General and obstetric examination to assess maternal wellbeing and fetal growth is recommended. Scar tenderness is not a reliable sign to predict scar integrity.

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Routine investigations and standard antenatal care should be provided. Ultrasonography for localization of placenta should be done in third trimester.

ANTENAL COUNSELLING is the most important part for VBAC.

INFORMED CONSENT regarding the mode of delivery is essential before the decision for VBAC is taken.

Following points need to be informed preferably as a written document/booklet.

a) The risks of VBAC: Risk of scar rupture is 1 in 200 (0.5%)
b) The Perinatal death during VBAC is low and is comparable to nulliparous women in labor.
c) Successful VBAC has few complications. Adverse outcome occurs most often in failed trial of VBAC resulting in emergency Cesarean section.
d) VBAC is successful in 72-75% cases. Previous vaginal birth or previous VBAC increases the success rate of VBAC to 85-90% and reduces the risk of uterine rupture.

ALTERNATIVE MODE OF DELIVERY: Elective Repeat Cesarean Section (ERCS) after 39 weeks is the alternative method of delivery. It is associated with a small increased risk of morbid adherence of placenta in future pregnancies and risk of pelvic adhesions.there is also increased incidence of respiratory morbidity in neonates if the section is done before 39 weeks.

How should VBAC to be conducted? Intra–Partum Care during VBAC Trial of Labour

PLACE OF VBAC: It should be done in a well equipped hospital with availability of adequate staff for continuous maternal and fetal monitoring and availability of operation theatre where Cesarean section can be done round the clock if emergency arises. Availability of advanced neonatal care is also needed.

CLOSE MONITORING: One to One care is preferable. Maternal symptoms should be reviewed time to time. Maternal pulse rate should be recorded half hourly as maternal tachycardia is an early sign of scar dehiscence. Progress of labor should be documented in a standard WHO partogram.

Continuous Electronic Fetal monitoring is necessary. Unexplained Fetal tachycardia is also a predictor of scar dehiscence.

Maternal IV access with wide cannula should be done. Hemoglobin and blood grouping reports should be available.

Analgesia and Epidural anesthesia are not contraindicated. However, the increased requirement of analgesia may alert the obstetrician regarding the possibility of scar dehiscence.

INDUCTION – AUGMENTATION of labor: As chances of scar rupture is 2-3 fold higher and chances of Cesarean section is 1.5 fold higher in induced/ augmented labor compared with spontaneous VBAC labor, a senior obstetrician should be involved in the decision to induce /augment labor in VBAC trial. For, induction of labour, mechanical methods as amniotomy or Foley's catheter are safer than prostaglandins. Oxytocin, for augmentation, although not contra indicated but should be judiciously used and close observation is mandatory.

Second stage of labor may be cut short by prophylactic outlet Forceps.

Active manaagemant of third stage of labor should be done as usual. Exploration of uterus for checking the scar should not be practised.

What are the Dangers of VBAC?

THE MOST DREADED RISK IS SCAR RUPTURE

RISK OF RUPTURE IS MORE IN- Maternal age 40 years or more, Obesity, Short inter pregnancy interval of less than 1 year since last delivery, Multiple pregnancy, macrosomia, Post dated pregnancy, Poor pre labor Bishop's score, Induced / augmented labor, Decreased ultrasonographic lower segment myometrial thickness.

WHAT ARE THE EARLY CLINICAL FEATURES OF SCAR DEHISCENCE/ RUPTURE

SYMPTOMS like severe abdominal pain persisting in between contractions,vaginal bleeding, hematuria should be considered important.

ADVANTAGES and DISADVANTAGES of VBAC VS ERCS at 39 weeks

MATERNAL	
VBAC	ERCS at 39 weeks
1. Scar rupture-0.5%, If occurs, maternal and neonatal mortality and morbidity increases.	1.No risk of scar rupture.Risk of anesthesia, increased blood loss is more.
2. Successful in 72-75% cases .shorter hospital stay and recovery if successful.	2. Certainty regarding the intervention .longer hospital stay.
3. Short and long term vaginal birth related complications as Perineal/ sphinterinjuries/Pelvic organ prolapsed/urinary incontinence	3. Risk of Pelvic organ prolapsed/urinary incontinence is lower.
4. Sterilization should be done as separate operative procedure if wished.	4. Sterilization can be done at the same time.
5. Good prospects of future vaginal birth	5. Incresed risk of placenta previa/morbidly adherent placenta and pelvic adhesions.
6 Risk of maternal death is 4/ 100000	6. Risk of maternal death is 13/100000.
NEONATAL OUTCOME	
1. Transient respiratory morbidity -2-3%	1. Transient respiratory morbidity -4-5%
2. Hypoxic ischemic encephalopathy (HIE) risk-0.08%	2. Hypoxic ischemic encephalopathy (HIE) risk-<0.01%
3. 0.1% risk of stillbirth if spontaneous labor is awaited after 39 weeks and 0.04% risk of delivery related perinatal death.	3. These risk are not applicable.

SIGNS as maternal tachycardia, acute onset of scar tenderness, sudden cessation of uterine contractions, fetal tachycardia/bradycardia are alarming.

Sudden onset of Abnormal CTG without any apparent reason often predicts a dehiscence of scar.

VBAC trial should be given to judiciously selected women with informed consent in well equipped centres. Close monitoring of maternal and fetal parmeters are essential to detect the complications at the earliest. Overall, the benefits appears to be more than the risks of VBAC when compared with that of ERCS.

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