

Pregnancy Outcomes for Women Giving Birth After Previous Cesarean Section

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ABSTRACT

INTRODUCTION- Cesarean section is a surgical trauma to mother there is many complications associated with it. Due to changing trends incidence of cesarean section increases which leads to some permanent damage to mother. So vaginal birth after cesarean section can reduce the chances of cesarean section and its associated morbidity. But both method have its advantage and disadvantage so decision regarding based on individual patient and their characteristics. This study performed to assess the maternal and fetal outcome in patients of previous cesarean section by both the methods.

METHODS- This is retrospective study was carried out in the department of obstetrics and gynecology at unaid hospital S.N. medical college Jodhpur from March 2020 to august 2020.

RESULTS- Out of 300 cases, elective repeat cesarean section was occurred in 71.2% of cases, 28.8% gave trial of labor. Successful VBAC occurred in 20.4% of cases and 8.4% had emergency cesarean section. Median age chosen for VBAC cases (25-30 year) and most elective LSCS was occur in >30 year of age. 37week-39week of gestation is most appropriate for trail of labor. Most common cause of failed trail of labor after cesarean section was fetal distress (64.7%). Most common complication with elective LSCS was adhesion formation (12.5%). In trial of labor scar dehiscence was most common complication (15.6%). Perinatal outcome was also worst in failed trial of labor.

RESULTS- Rising incidence of LSCS and complication of failed trial of labor both were challenging for a patient of previous LSCS. So individual patient should assess and decide mode of delivery in patient of previous cesarean section.

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I. Introduction

Cesarean section is a commonest obstetric procedure evolved to save a maternal and fetal life during difficult childbirth, its incidence become increasing now a days. Even though variation exist in the rate of caesarean delivery across countries, currently the rate range from 10% to 40% (1,2). The international health care community has considered the ideal rate for caesarean section to be 10- 15%. Rising rate of caesarean section is an issue of particular concern in global maternity care field (3). Caesarean section can cause significant and sometime permanent complications, disability or death, particularly in poor hospital setting to conduct safe surgery and treat complications. Moreover many countries try to solve the problems by offering a trial of labor after caesarean delivery (TOLAC), reducing the number of caesarean section. It is now safe to say that **“Once a cesarean section, always a hospital delivery”**. Both TOL and repeat cesarean section carry risks, including maternal haemorrhage, infections, operative injury, hysterectomy and mortality. But in an appropriate clinical setting and properly selected group of women, VBAC offer a distinct advantage over a repeat cesarean section, since the operative risk is completely eliminated, the hospital stay is much shorter, expenses involved are much less. Deciding when to attempt VBAC is a major decision and should be based on careful selection of patients after thorough counseling, estimation of patients risk of uterine rupture and strict adherence to watchful progress of labor, in units where there are facilities for immediate access to surgery, if complications arises. This study was carried out to access the maternal and fetal outcomes in post cesarean pregnancy.

AIMS AND OBJECTIVES-

- 1) Comparison of socio demographic data in patients of elective LSCS and TOL.
- 2) Mode of delivery in patients of previous LSCS.
- 3) Pregnancy outcome in elective repeat LSCS and failed TOL patients.

II. Material And Methods

STUDY LOCATION- Department of obstetrics and gynaecology, Dr S.N. medical college, Umaid hospital, Jodhpur, Rajasthan, India.

STUDY DURATION- March 2020 to august 2020.

STUDY DESIGN- Retrospective Observational study

STUDY POPULATION- Antenatal mother admitted in umaid hospital with history of previous one LSCS after 37 completed weeks of pregnancy.

INCLUSION CRITERIA-

- 1) Singleton pregnancy
- 2) Cephalic presentation
- 3) Gestational age >37 weeks
- 4) History of pervious one LSCS

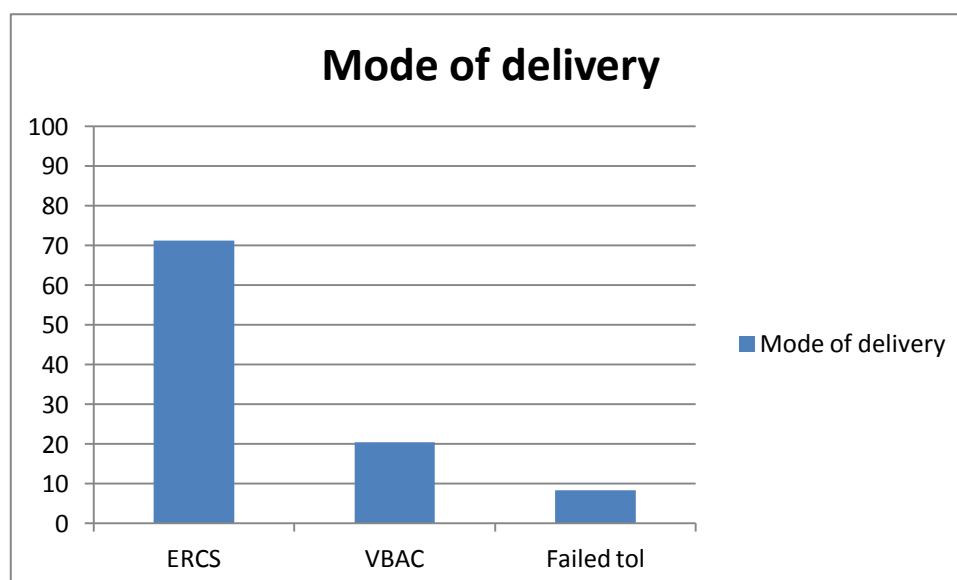
EXCLUSION CRITERIA –

- 1) Multifetal pregnancy
- 2) Malpresentation
- 3) Gestational age <37 weeks
- 4) History of more than one previous LSCS
- 5) History of classical caesarean section and hysterotomy and any other scar

SAMPLE SIZE - This study consist of 300 patients who studied for pregnancy outcome and fetal and maternal complications.

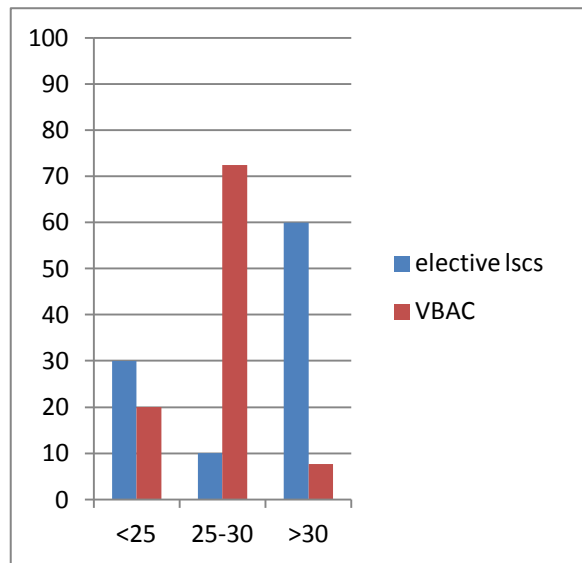
METHODOLOGY – This was a hospital based study, data collected retrospectally from the patient sheet regarding previous LSCS indication; gestation age, baby weight and any complication with it and history, investigation regarding this pregnancy were also collected. Mode of delivery and mother, fetal were noted. If vaginal delivery occur due to failed TOL than indication of failed TOL were also noted

MODE OF DELIVERY



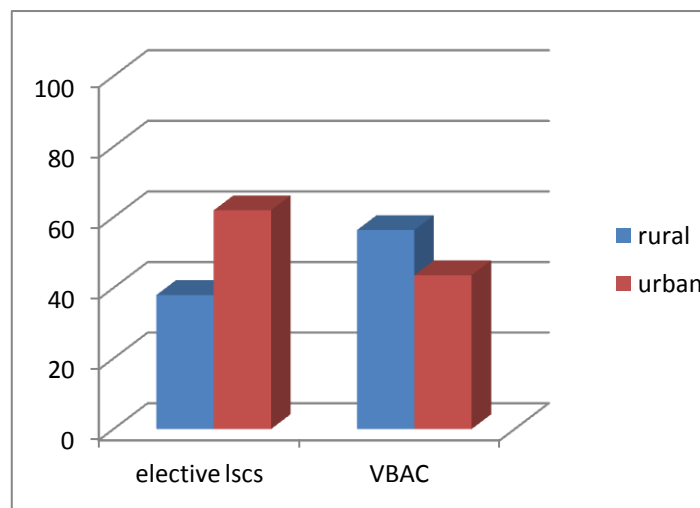
Elective repeat cesarean was in 71.2% of cases, VBAC in 20.4% and failed TOL in 8.4% of patients

AGE DISTRIBUTION



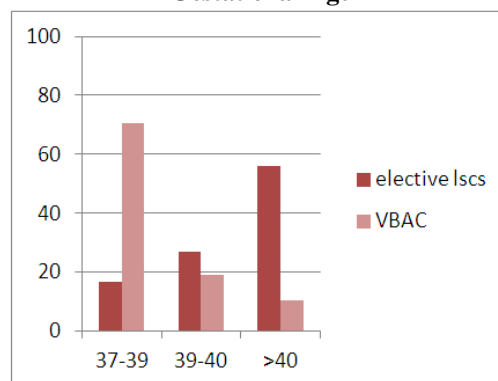
Elective LSCS was more common in age >30 years i.e. 60% and VBAC was more common in 25-30 years of age i.e. 72.4% of cases.

GEOGRAPHICAL DISTRIBUTION



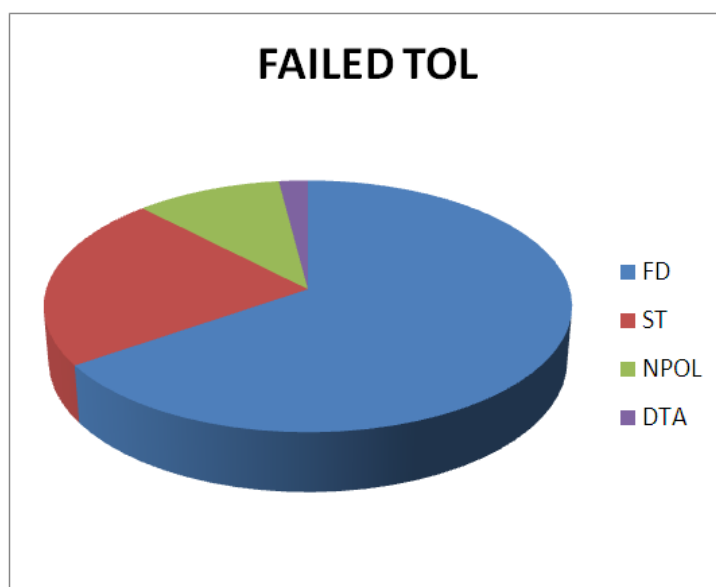
Elective LSCS was more in urban areas i.e 62% and in rural area VBAC was 56.4%.

Gestational Age



Elective LSCS was frequently occurred in >40 week of gestation (56.2%) and VBAC occurred in 37-39 weeks of gestation (70.6%).

ETIOLOGY OF FAILED TOL



The most common reason for failed TOL was fetal distress (64.7%), scar tenderness (22.2%), NPOL (10.1%) and DTA was 2%.

COMPLICATIONS OF ELECTIVE REPEAT CEASERIAN SECTION

Complications	Percentage
Adhesion	12.5
Scar dehiscence	2.2
Hysterectomy	0.15
Broad ligament hematoma	0.15
PPH	10.1

In repeat Elective cesarean section adhesion found in 12.5% , scar dehiscence in 2.2% cesarean hysterectomy were 0.15% and PPH was in 10.1% of cases.

COMPLICATIONS OF FAILED TOL

COMPLICATIONS	PERCENTAGE
Scar dehiscence	15.6
Scar rupture	3.4
PPH	12.2
Hysterectomy	0.30

Scar dehiscence was found in 15.6%, scar rupture was 3.4%, PPH 12.2% and Hysterectomy was 30%.

PERINATAL OUTCOMES

PERINATAL OUTCOMES	ELECTIVE LSCS	FAILED TOL
Still birth	0.2%	2.2
NICU Admission	1.2%	6.7

Still birth in elective LSCS was .2% and in failed TOL it was 2.2%. NICU admission in elective LSCS was 1.2% and in failed TOL it was 6.7%.

III. Discussion

Cragin (1916) stated that “Once a cesarean, always a caesarean”. In current situation this is not always right; there are chances of spontaneous labor or caesarean section.

In our study there were 70 patients in which 50 patients taken as elective repeat cesarean section and 20 patients taken for trial of labor. Out of which 13 patients have successful labor and delivery and 7 patients had failed trial of labor so taken for emergency cesarean section. Success of TOLAC was 65%. In **CHINIWAR MA et al**⁽⁴⁾ studied that success rate of TOLAC was 75.48% that is similar to our study. Most common age group for VBAC is 25-30 yr and for elective repeat cesarean section was >30 years. Same results were found in study of **KALISA et al**⁽⁵⁾. Majority of VBAC occur in rural area as compare to elective repeat caesarean section was occur in urban part of district. Elective cesarean section was done in post dated pregnancy there was no trial of

labor 37-39 weeks were gestation age for trial of labor. **Anastasia et al**⁽⁶⁾ was found that most common gestation age was 39-40 week.

In our study most common reason for failed trial of labor was fetal distress that is 64.7% , scar dehiscence was 22.7%, non progress of labor was 10.1% and deep transverse arrest was in 2% cases. **PANDEY et al**⁹ same results and reported that 53.84% for fetal distress and 10% for failure to progress. In **ANAGHA N et al**⁷ reported 2.75%, **AKANKSHA N et al**⁸ reported 7.4% seen intra operatively during repeat cesarean section.

In this study most common complication in repeat elective cesarean section was adhesion formed between uterus and anterior abdominal wall that is 12.5%, another was scar dehiscence in 2.2%, hysterectomy was 0.15%, broad ligament hematoma was 0.15%, post partum haemorrhage was 10.1%. over all complications were 25.1% of cases. **NAZANEEN S et al**¹⁰ adhesion was found 34.76% of cases, **ANAGHA et al**¹¹ was reported in 39.99% and **SINGH S et al**¹² was found in 26.92%. **MENGESHA et al**¹³ was found that caesarean hysterectomy in 3% cases, scar dehiscence was in 6.8% of cases and PPH was in 5.6% of cases. Results were almost similar to our study.

Complications of failed trial of labor were scar dehiscence defined as disruption of uterine muscle with intact serosa was seen in 15.6% , scar rupture was 3.4%, PPH was in 12.2% cases and hysterectomy was in 0.30% of cases. Overall complications rate were more than elective LSCS that is 31.5% of cases. **KALISA et al**⁵ scar rupture was seen in 1.6% in cases, **GOEL SS et al**¹⁴ found that actinic PPH was maximum in emergency LSCS for failed trial of labor (32.43%).

In our study still birth was seen in 0.2% in elective LSCS vs 2.2% in emergency LSCS and NICU admission was in 1.2% in elective LSCS and 6.7% in emergency LSCS. So overall perinatal outcome was worst in emergency LSCS. Same results was found in study of **SHARADA B et al**¹⁵ still birth was seen in 3.85% and NICU admission was seen in 12.87% of cases.

IV. Conclusion

Elective repeat cesarean section and VBAC both have their advantage and disadvantage so decision regarding mode of delivery should be individualized. Women should inform about risk and benefits about both mode of delivery. Proper selection, appropriate timing, adequate facilities are requirement of conduct a safe delivery. It remains a challenge to strike a balance between concerns for safety and need to decrease cesarean section. Sonographic evaluation of lower uterine segment scar and myometrial thickness is a safe reliable and noninvasive method for predicting the risk of scar dehiscence.

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