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FETOMATERNAL OUTCOME IN PREVIOUS TWO LSCS WOMEN IN TERTIARY CARE CENTRE IN SOUTH GUJARAT

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ABSTRACT

Aim: To study maternal and fetal morbidity and mortality in previous two lscs women with pregnancy. **Methods:** It was an prospective observation study conducted collecting data from medical records of around 100 consecutive consenting subjects undergoing previous 2 CS in a tertiary care centre over a period of 1 year after HREC approval. **Results:** In our study majority of participants(56%) are within the age group of 20-29 years.Majority (84%)of subjects underwent their second caesarean section for non recurrent indication.Among them previous cs with negative consent for vbac accounts for majority(72%). In our study total 5 patients have placentae previa out of which 2 have placentae acretae.Total 6 patients have morbidly adherent placentae.Out of which 5 have placentae acretae and 1 have placentae percetae.Out of 6 subjects obstetric hysterectomy done in 3 subjects(2 with placentae acretae and 1 with placentae percretae) with morbidly adherent placentae due to uncontrolled bleeding from placental bed site. In my study 14 patients required obicu admission.Out of them 10 patients have emergency cs and 4 patients have elective cs. Maternal mortality occur in 1 patients.It is seen with patient having morbidly adherent placentae and placentae previa. NICU admission was required in 18 newborns.Majority of neonate admitted in nicu due to prematurity. Total peripartum loss was 4%. **Conclusion:** Maternal morbidity and fetal morbidity is increased due to previous two caesarean section.Lack of birth spacing and lesser threshold for VBAC leads to increase in number of patient with previous 2 cs.Operative time,blood loss,adhesions,chances of bowel/bladder injury are more in previous two cs.Nicu admission increased in case of previous 2 cs due to operative intervention in previous 2 cs in <37 week who presented with labour.Major cause of Nicu admission is prematurity/Respiratory distress syndrome/Transient tachypnoea of new born.

KEYWORDS :

INTRODUCTION

Childbirth is a natural process but being the most intelligent species on this planet we have the ability to intervene the nature and assist childbirth leading to introduction of Cesarean Section.

Cesarean Section has witnessed its evolution over ages. In 1985 WHO stated: "There is no justification for any region to have Cesarean Section rates higher than 10-15%" [1]. However, its recommendations were limited by incomplete data and varying trends of Cesarean Section over years.

In United States, rates of Cesarean Section were 4.5% in 1970 which has increased to 32 % in 2015 [2]. As per latest data in India, NHFS-4 (2015-2016), Cesarean section rates at population level is 17.2%(3). Consistent increase in Cesarean section rates have been noted in developed as well as developing Countries. The reasons for it are multifactoral which includes maternal request for Cesarean Section, increase in induction of labour, medical reasons and medical risk factors and increasing negative consent for TOLAC.

With increasing incidence of Cesarean section and it being a most common obstetric procedure worldwide, it gives a women frequently an obstetric status of „Previous 2 Cesarean Section . Scarring and adhesion formation becomes an important sequel after any abdominal and pelvic surgery.

With subsequent Cesarean Section, there is increase risk for encounting adhesions, morbidly adherent placenta, need for blood transfusion, possibility of bowel or bladder injuries, need for longer hospital stays, extension of uterine incisions and need for hysterectomy.

Hence, present study aims at identifying the incidence of difficulties encountered during a Repeat Cesarean Section and its complications.

MATERIALS AND METHODS

Study Design: Observational study

Place of study: Department of obstetrics and gynaecology, Government Medical college, surat.

Period of study: One year after HREC approval.

Study Population:
All consecutive consenting women with previous two lscs admitting in obstetrics and gynaecology department of new civil hospital surat were enrolled in this study.

Sample size: 100 participants.

Inclusion criteria:
- All consenting women having previous 2 lscs admitted in obstetric department of tertiary care hospital.

Exclusion criteria:
Pregnant women with
- Previous 1 Caesarean sections
- Normal vaginal delivery

All consecutive eligible consenting subjects who had undergone a previous two cesarean section were explained regarding the indications of this Caesarean section. Women giving consent for participation in the study were explained regarding the aims, objectives of the study and a written consent was taken for their enrollment in the study.

Medical records review was done to note

- Socio-demographic data
- Obstetric history(including indications, timing, emergency or elective, intraoperative and postoperative complications during a previous cesarean section)
- General examination
- Abdominal examination
- Antenatal investigations including Usg findings (especially placental localization, morbid adherence if any)

The postoperative management was done as per departmental SOPs and details of requirement of postoperative blood transfusion or prolonged catheterization was noted. All details were noted in the proforma and data entry and analysis was done according to SSPS software version 26.

RESULTS

This prospective observational study was conducted in the department of Obstetrics and Gynaecology in our institute, enrolling 100 consecutive consenting pregnant women undergoing two Caesarean section in our institute, over a period of 1 year.

Socio-demographic Factors

Age wise distribution of participants(n=100)		
Age	No of participants	Percentage
< 20 years	0	00
20-29 years	56	56
30-39 years	44	44
> 40 years	0	00

Antenatal Registration status of participants(n=100)		
Registration	No of participants	Percentage
Registered inside	83	83
Registered outside	4	4
Referred	5	5
Emergency	8	8

Gestational age	No of participants	Percentage
≤36 weeks	05	05
37 to 39 weeks	84	84
≥ 40 weeks	01	01

ANC visits of participants(N=100)	
No. of ANC visits	No. Participants
0 visits	08
3<= visits	07
>3 visits	85

- Majority of the subjects were within the age group of 20-29 years(56%).
- Mean age of our subjects was 29 years.
- 83% of the participants were registered at hospital and had taken previous antenatal visits whereas 4% registered outside.
- 8% of the participants inspite of having a previous 2 cesarean section and had not taken any antenatal visits in current pregnancy and presented for first time in tertiary care.This emphasizes the need to create awareness regarding importance of antenatal care.
- 5% of patients were referred.
- Majority of the participants (84%) underwent a repeat Caesarean section at 37 completed weeks of gestation.
- However, 5% of the subjects in our study underwent a preterm repeat Caesarean section.

Indication of 2nd Caesarean section

	No. Participants	Percentage
Reccurent Indication	16	16%
Non-reccurent Indication	84	84%

- Only 16 % of the patients have repeated cs that have recurrent indication like oligohydroamnios,cephalo pelvic disproportion .while majority of repeated cs have non recurrent indication live previous cs with negative consent and short inter delivery interval.This emphasizes that the bcoz patient is not giving trial for vbac there is increased incidence of previous 2cs.
- 72% participants gave negative consent for vaginal delivery after 1st cesarean section.

Maternal Complications

Placental location (n=100)		
Location	No of participants	Percentage
• FundoAnterior	44	44
• FundoPosterior	39	39
• Low lying	06	06
• Placentae previa	5	5
• Placentae acretae	5	5
• Placentae percretae	1	1

Associated Morbidly adherent placenta(n=100)		
Morbid adherence	No of participants	Percentage
Yes	06	06
No	97	97

	Emergency CS	Elective CS
Mortality	01	00
BT	15	07
OB-ICU	10	04
Hysterectomy	02	01

Associated APH		
Cause of APH	No. of participants	Percentage
Placenta Praevia	05	02
Placentae percretae	01	01
Placentae acretae	05	05
Abruptio Placenta	04	04
Uterine rupture	01	01

- Placentae previa was noted in 5(5%) of our subjects
- In our study total 5 patients have placentae previa out of which 2 have placentae acretae.
- Total 6 patients have morbidly adherent placentae.
- Out of which 5 have placentae acretae and 1 have placentae percetae
- Out of 6 subjects having morbidly adherent placentae obstetric hysterectomy done in 3 subjects(2 with placentae acretae and 1 with placentae percretae) with morbidly adherent placentae due to uncontrolled bleeding from placental bed site.
- In our study there are total 16 subjects that are associated with APH.Among that 5 subjects have placentae previa , 1 have placentae percreta, 5 have placentae acretae 4 patients have Abruptio placentae, 1 has uterine rupture.
- In our study mortality of 1 patient has occurred that has placentae previa and morbidly adherent placentae.
- Among participants where hemorrhage was not controlled medically, uterine artery ligation was done in 7% of the participants.Among 7 subjects in whom uterine artery ligation done 3 of them have placentae previa and 2 have morbidly adherent placentae.
- Among participants 3 subjects undergo Obstetric hysterectomy.All 3 of them have morbidly adherent placentae and mortality occur in one of the subject who underwent hysterectomy.
- In my study maternal mortality occur in 1 patients.It is seen with patient having morbidly adherent placentae and placentae previa.
- Blood is given to 22 subjects(22%).out of 22 subject 15 patient have undergo emergency cs and 7 patient undergo elective cs.It emphasizes that patient undergoing elective cs have less chances for blood demand as compared to patients undergoing emergency cs.

- In my study 14 patients required obicu admission.Out of them 10 patients have emergency cs and 4 patients have elective cs. Majority of patients required obicu admission have morbidly adherent placentae,bladder adhesion, placentae previa.
- In my study 3 patients undergo obstetric hysterectomy.out of them 2 have emergency cs and 1 have elective cs.In all patients where hysterectomy done have morbidly adherent placentae.

Fetal Complications

NICU admission was required in 18 newborns

Causes of NICU admission		No. of participants
Low birth weight	Prematurity	09
	IUGR	00
Other complications and neonatal outcome	Jaundice	00
	MAS	01
	Foetal hypoxia	00
	RDS	04
	Neonatal death	04

Majority of nicu admission is due to prematurity(9%)

Total neonatal death is 4

1. 2 of them due to hypoxic ischemic encephalopathy
2. 2 of them due to fetal hypoxia

DISCUSSION

- Majority of the subjects were within the age group of 20-29 years(56%).
- Majority of our participants resided in urban locality, while only 12% were from rural area
- 83% of the participants were registered and had taken previous antenatal visits.
- Majority (84%)of subjects underwent their second caesarean section for non recurrent indication.Among them previous cs with negative consent for vbac accounts for majority(72%).
- Adhesions were noted in 24 subjects (24%) in our study.
- Due to adhesions intra operative time increases,also there is difficulty in delivery of baby and there is difficulty while placing uterine incision
- Placentae previa was noted in 5(5%) of our subjects
- In our study total 5 patients have placentae previa out of which 2 have placentae acretae.
- Total 6 patients have morbidly adherent placentae.
- Out of which 5 have placentae acretae and 1 have placentae percetae
- Out of 6 subjects obstetric hysterectomy done in 3 subjects(2 with placentae acretae and 1 with placentae percretae) with morbidly adherent placentae due to uncontrolled bleeding from placental bed site.
- Among participants where hemorrhage was not controlled medically, uterine artery ligation was done in 7% of the participants.Among 7 subjects in whom uterine artery ligation done 3 of them have placentae previa and 2 have morbidly adherent placentae.
- Among participants 3 subjects undergo Obstetric hysterectomy.All 3 of them have morbidly adherent placentae and mortality occur in one of the subject who underwent hysterectomy.
- 97% newborns were live born.
- Three subjects were stillborn.Among them 2 had abruption placentae.
- 86 of our newborns had weight between 2 to 3.5kg,
- Three subjects(3%) had baby weight more than 3.5 kg,
- 91 of newborns were term, while 09 were pre-term.
- NICU admission was required in 18 newborns.Majority of neonate admitted in nicu due to prematurity .
- Total peripartum loss was 4%.

CONCLUSION

- We conclude that maternal morbidity and fetal morbidity is increased due to previous two caesarean section.
- Lack of birth spacing and lesser threshold fpr VBAC leads to increase in number of patient with previous 2 cs.
- Due to operative intervention and previous existing anemia leads to requirement of blood transfusion in this patient.
- Operative time,blood loss,adhesions,chances of bowel/ bladder injury are more in previous two cs.
- Duration of stay at hospital is more in this patient so maternal morbidity is increase in previous 2 cs
- Nicu admission increased in case of previous 2 cs due to operative intervention in previous 2 cs in <37 week who presented with labour.
- Major cause of Nicu admission is prematurity/Respiratory distress syndrome/Transient tachypnoea of new born.

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