



“THE WAR WHEN YOU ALREADY HAVE A SCAR” -STUDY OF DIFFICULTIES IN EXTRACTION OF BABY IN PREVIOUS CESAREAN SECTION

Obstetrics & Gynecology

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ABSTRACT

Background: The study of intraoperative difficulties in extraction of baby in previous cesarean section

Method: This is a tertiary centre based prospective observational study conducted in the department of Obstetrics and Gynaecology, at our tertiary health care hospital between the study period October 2018-september 2020. A total 1200 cases of patients with previous cesarean section were studied. They are divided into number of previous scar and the intraoperative surgical difficulty encountered by the surgeon in delivering the baby based on the consequences of scar from previous cesarean section.

Results: The incidence of repeat cesarean section being 9.4%, among which only of 38% cases were encountered with difficulties in cesarean section by the surgeons in the institute. Among which 26.3% cases were encountered with Adhesions, 4.2% with difficulty in delivery of baby, 1.5% cases needed assistance by senior surgeon in delivering baby and 6% among that had poor perinatal outcome.

Conclusions: The common clinical entity of “previous cesarean section” in subsequent pregnancies, giving a high risk pregnancy status to the reference pregnancy. The risks associated with repeat cesarean section can be reduced by many measures including-vigorous ANC surveillance to reduce the risk of primary CS, intervention by operative vaginal delivery whenever needed, giving trial of labor in cesarean section (TOLAC) with skilled monitoring, counselling of patients regarding perineal exercises in pregnancy. Most complications will be recognized at the time of operation and easily corrected either by the operating surgeon or by seeking assistance from other specialties.

KEYWORDS

LSCS- Lower segment cesarean section, ANC-Antenatal care, CS-cesarean section

INTRODUCTION

A cesarean section can be a lifesaving technique for both mother and baby and has truly been one of the remarkable successes of modern medical science. Its relative safety has accelerated the acceptance and rate in recent years and this is now a public health problem in terms of economic burden and possible difficulties. Main reasons for this increase: rapidly decreasing rate of trial of labor after cesarean section (TOLAC) and increasing primary cesarean rate on maternal request¹.

Women with previous cesarean section should be considered as high risk and regular antenatal check-up is mandatory². The present study aims at knowing the surgical difficulties encountered by a surgeon while delivering the baby in this highly prevalent surgical procedures of repeat cesarean sections.

AIM AND OBJECTIVES

A clinical study of intraoperative difficulties in extraction of baby in previous cesarean section.

- To determine the incidence of repeat caesarean sections.
- To study and analyse intraoperative difficulties in extraction of baby in previous cesarean section

Present study is a prospective observational study carried out at a tertiary care centre, Total 1200 samples were selected by non-probability convenient sampling method was used to select patients at tertiary care centre, and who met the designed set of criteria.

Inclusion Criteria:

1) All women who are willing to participate in the study. 2) All women with one or more cesarean section undergoing repeat cesarean section.

Exclusion Criteria:

1) All women those who are not willing to participate in the study. 2) All Women who have undergone laparotomy, Hysterotomy, myomectomy or any other abdominal surgical procedures other than cesarean section.

OBSERVATION AND RESULTS

Table No 1: Incidence Of Total Number Of Repeat Cesarean Section

S.N.	Total no of LSCS	Incidence	Total no of repeat CS	Incidence
1	5980	30.38%	1853	9.41%

In the above study the incidence of LSCS is 30.38% amongst which incidence of repeat LSCS 9.41%

Table No 2: Comparison Of Baseline Maternal And Perinatal Characteristics Among The Study N=1200

S.N.	Number of previous cs	Frequency	Percentage
1	Previous 1 CS	808	67.33
2	Previous 2 CS	329	27.42
3	Previous 3 CS	60	05.00
4	Previous 4 CS	03	00.25
S.N.	Category of LSCS		
1	I (<30 mins)	576	48.00
2	II (30-45 mins)	169	14.08
3	III (45-75 mins)	217	18.08
4	IV (75 mins)	238	19.84
S.N.	Difficulty encountered		
1	YES	456	38.00
2	NO	744	62.00
S.N.	Change of skin incision	Number	Percentage
1	Transverse to midline vertical	10	00.83
2	Vertical to lower transverse	4	00.34
S.N.	Incision on uterus	Frequency	Percentage
1	Low Transverse	1145	95.42
2	High Transverse	16	01.35
3	Inverted T	22	01.83
4	Classical	17	01.42

S.N.	Interval b/w skin incision and baby delivery		
1	< 5 mins	792	66.00
2	5-10 mins	369	30.75
3	10-15 mins	39	03.25
S.N.	Difficulties noted	Frequency	Percentage
1	Adhesions	316	26.33
2	Thinned out lower uterine segment	214	17.83
3	Scar dehiscence	150	12.50
4	Placenta Previa	132	11.00
5	Postpartum haemorrhage	72	06.00
6	Difficulty in baby extraction	51	04.25
7	Extension of uterine incision	42	03.50
8	Scar rupture	18	01.50
9	Obstetric Hysterectomy (OH)	16	01.33
10	Adherent Placenta	11	00.92
11	Bladder injury	09	00.75
12	Bowel injury	00	00

Table No 3: Difficulties In Extraction Of Baby

S.N	Difficulty encountered in delivering baby	Managed by	Number	%
1	Floating head	Instrumental use	21	01.75
2	Deeply engaged head	Vaginal disengagement, Reverse breech, Patwardhan, Modified Patwardhan method	13	01.08
3	Breech presentation	Maneuver	4	00.33
4	Transverse lie	Breech or reverse breech extraction	2	00.16
5	Multifetal gestation	Delivering one after other	2	00.16
6	Deflexed head	Maneuver	9	00.75
		Total	51	04.25

The incidence of repeat cesarean section being 9.4%, among which only of 38% cases were encountered with difficulties in cesarean section by the surgeons in the institute. Previous 1 LSCS being 67%. Indication of LSCS based on category of LSCS with emergency section (Cat 1) being 48% increasing the risk of complications. Majority of skin and uterine incision being Transverse incision. Among 38% of difficulties encountered, 26% were encountered with Adhesions as intraoperative difficulties. 4% were encountered with difficulty in delivering baby.

Table No :4 Evidence Of Perinatal Morbidity

S.N.	Type of injury	Number of cases	Percentage
1	Head laceration	4	00.33
2	Asphyxia	38	03.16
3	Prematurity	36	03.00
4	Fracture	00	00.00
5	Nerve injury	00	00.00
	Total	78	06.49

Table No 5: Of Previous CS With Intraoperative Difficulty n=1200

Difficulty	Previous I (n=808)		Previous II (n=318)		Previous III (n=71)		Previous IV (n=3)		P value
	No	%	No	%	No	%	No	%	
Diff. in baby extraction	21	02.60	17	05.35	13	18.31	00	00	0.631

Multiple cesarean sections predispose to an increased risk of severe dense adhesions, scar dehiscence, lower uterine segment thinned out, abnormal placentation, significant hemorrhage, bladder injuries and cesarean hysterectomies associated with intraoperative difficulties in extraction of baby according to number of previous cesarean section has been concluded according to present study. Major difficulty encountered was among previous 3 LSCS among the total number of cases as the CS is mostly elective and is done before the patient goes into labor.

DISCUSSION

Cesarean section is the most common obstetric operative procedure worldwide. The incidence of C-section is continuously increasing for the last couple of decades giving women frequently an obstetric status of "previous cesarean section". While the crucial, lifesaving role of cesarean section (CS) in modern obstetrics is obvious, the potential adverse impact of high CS rates is less expressed about raising CS rates and their potential difficulties especially during a repeat cesarean section in many countries.

The studies conducted by Sinha³, Singh p et al⁴ and Laxmi et al⁵ had higher cases with previous 1 LSCS of around 80-88% and previous 2, previous 3 and previous 4 with comparable lowest rates but present study shows previous one LSCS with 67%- comparatively less, previous 2 LSCS with 27%, previous 3 with 5%- comparatively high. This disparity is due to increased incidence of higher grades of C-section compared to primary C section as my institution is the Tertiary care centre. Akhter et al⁶, Shanmugham et al⁷ and Laxmi et al⁵, the indication of maximum LSCS belonged to Category I (47%, 51% and 58% respectively) i.e. Emergency LSCS followed by Category IV i.e. Elective LSCS. Studies by Sinha³ and Chavan at al maximum cases belonged to cases with Low transverse incision f/b high transverse (52% and 86% respectively) as compared with present study being with 95%. The observational study conducted by Akhtar et al⁶, Shanmugham⁷ or Somani⁸ the most common difficulty encountered was with Adhesions. Major difficulty dealing with the outcome and prognosis of the baby was dealt with delivering of the baby as the cesarean in previous scar is done before the women goes into labor head remains floating or at times deeply engaged when in labor leading to use of different maneuvers or intraccesarean instrumental use being 21% and 13% respectively, the other studied shows the reduced incidence of difficulty as the referral rate with previous cesarean section is high. In support with this study Herkowitz et al suggested that single cesarean section is enough to interfere with the normal physiological stretching of LUS in subsequent pregnancies, thus preventing normal migration of the placenta away to upper uterine segment which results in increased incidence of placenta previa resulting in increased incidence of preterm and associated difficulty and perinatal outcome.

CONCLUSION

Modern obstetrics practice for medical, social, economic, and legal reasons has witnessed an increase in the primary cesarean section rates everywhere. This has created a common clinical entity of "previous cesarean section" in subsequent pregnancies, giving a high risk pregnancy status to the reference pregnancy.

The risk increases with the increasing number of CS, parity, early marriages, early conception, short intervals between subsequent pregnancy, undernourishment, inadequate ante-natal checkups, high prevalence of illiteracy and poverty especially in our Indian women. In developing countries where antenatal care seeking rate is poor and last moment reporting or transfer to tertiary units is very high, these high risk cases are managed as emergency sections as against the ideal for them, the elective cesarean.

Every patient with previous cesarean section is considered high risk and during the section a senior Obstetrician should be present on floor, in order to tackle any intraoperative difficulty noted and to provide intraoperative assistance. A variety of intra-operative difficulties such as increased incidence of adhesions, abnormal placentation, intra-operative hemorrhage, scar dehiscence, thinning of lower uterine segment were noted, and these were more in women with more no of cesarean sections.

Obstetricians must operate with a meticulous surgical technique and retain a high index of suspicion for complications, particularly visceral trauma, as delayed recognition is associated with significantly poorer outcome. Most complications will be recognized at the time of operation and easily corrected either by the operating surgeon or by seeking assistance from other specialties. The risks associated with repeat cesarean section can be reduced by many measures including-vigorous ANC surveillance to reduce the risk of primary CS, intervention by operative vaginal delivery whenever needed, giving trial of labor in cesarean section (TOLAC) with skilled monitoring, counselling of patients regarding perineal exercises in pregnancy, external cephalic version in breech presentations under vision, best technique to reduce the multiple potential risks of repeat cesarean

section is to reduce the rates of primary and repeat cesarean sections whenever possible.

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