



ORIGINAL RESEARCH PAPER

Gynecology

A STUDY OF INTRAOPERATIVE DIFFICULTIES IN REPEAT CESAREAN SECTIONS AND THEIR MANAGEMENT

KEY WORDS: Repeat Cesarean Section, Adhesion, Hemorrhage

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ABSTRACT

Objective: To determine the intraoperative difficulties in Repeat Cesarean Sections and their management.

Material & Methods: It is an observational prospective study of repeat cesarean sections conducted on all subjects who were admitted in Zenana Hospital from June-Dec 2013.

Results: More than 50% cases showed a variety of intraoperative difficulty. The main complications were adhesions, thinned out lower uterine segment, bladder high-up, extension of uterine incision hematoma scar dehiscence, rupture uterus etc. No maternal mortality was found.

INTRODUCTION

Cesarean delivery is defined as the birth of fetus through incisions in the abdominal wall and the uterine wall. A repeat cesarean section is done when a patient had a previous cesarean section. Typically it is performed through the old scar. Although the operation is now safer than in past because of improvements in anesthesia, antibiotics and blood transfusion services, a cesarean section still carries a significant risk to mother compared to normal delivery. Complications of cesarean can result from any number of factors that include maternal and fetal health, timing of procedure, surgical technique & technician experience. Repeat cesarean section is associated with additional risks when compared with primary cesarean section.

MATERIAL & METHOD

An observational prospective study of 300 cases of repeat cesarean sections in Department of Obstetrics & Gynecology, Zenana Hospital, attached to SMS Medical College Jaipur from June-2013 to Dec-2013. All women who have undergone one/more cesarean sections and had repeated C-sections performed at 28 weeks of gestation or later were include in the study. The routine investigations were done. The particular difficulty encountered while operating a repeat cesarean section were meticulously noted. The collected data was analyzed for type and incidence of the intraoperative problem.

DISCUSSIONS

In the present study 91.33% cases TCLI uterine incision were used. In 4% cases incisions was given on scan dehiscence site. In 1.33% cases inverted T shaped incision were used and in 0.67% cases J shaped incision were used due to adhesion and difficulty in head delivery. In 2.67% cases rupture uterus was found (Table 1). Foetus extracted as vertex in 90% cases and placenta delivered spontaneously in 95% cases. (Table 2&3)

The complications during surgery were adhesions (35.33%), thinned out lower uterine segment (13%), hemorrhage (12.67%), bladder high up (11.33%), extension of uterine incision (5.33%), hematoma (4.33%), scar dehiscence (4%), rupture of uterus (2.67%), placenta previa (2.33%), cesarean hysterectomy (1%), bladder injury (.67%), adherent placenta (.33%). There was no bowel injury (Table 4) this is comparable to other study (Nahar K¹, Ramakrishnarao², V.Suhasini³)

In the present study incidence of adhesion, thinned out LUS and hemorrhage increase with increased number of previous C-Section (Table 5) which is similar to study of Nisenblat⁴. Incidence of other complication did not correlate with no of previous C-section similar to study of Caimohe M Lyncher⁵ and Rasid M⁶.

Adhesions were present in 35.33% cases. In study of

Ramkrishnarao et al², Nahar K et al¹ and Togas Tulandi⁷ had an incidence of 25.43%, 39% & 24.4% of adhesions respectively. Different type of adhesion were present (Table 6). Many patient had more than one type of adhesion. The most common type of adhesion were observed between parietal peritoneum and anterior surface of uterus (A1-77.35%) and between omentum and uterus (A5-48.11%). which was managed by adhesiolysis in many of cases and in some cases incision was taken higher up. Majority of these cases were associated with difficulty in opening the abdomen, identifying LUS, difficulty in separating bladder, excessive bleeding due to increase operating time and increase in raw surface area following adhesiolysis. Adhesion increase with increased number of previous C-section, different combination of adhesion were present. Most common type of combination were A1, A3 similar to study of Ramkrishnarao². The complications were managed accordingly (Table 7)

A study conducted on 240 repeat cesarean sections by Khursheed F, Sirichand P and Jatoi N⁸ observed that there was a high incidence of extremely thinned out lower uterine segment (16.6%) in women with previous two sections as compared to women with previous one cesarean section (8.7%) and 8.3% in previous 3 cesarean section. In present study 13% of the study group had thinned lower uterine segment distributed in 11.65%, 12.85%, 40% and 100% cases of previous 1, 2, 3 and 4 cesarean respectively. (Table 5)

In present study 12.67% of the cases had hemorrhages on table due to adhesions, atonic uterus, abnormal placentation and extension of uterine incision which is comparable to study of Wuttikonsammabit et al⁹ (6.3%) and Suhasini³(10.9%). Intra-operative blood loss was managed by uterotonic drug, extra hemostatic suture at bleeding site (4%), Intrauterine packing (5%), bilateral uterine artery ligation (2%) and Cesarean hysterectomy (1%) (Table 7). The rate of excessive bleeding after cesarean delivery increase as the number of previous cesarean delivery increases (Table 5)

It is seen 5.33% cases which is comparable to study of Suhasini³ (6%). Managed by repair of extension. (Table 5)

In a study in 240 repeat cesarean section by Khursheed F, Sirichand P, Jatoi N⁸ observed that scar dehiscence was seen 7.8% of women with previous one cesarean section, 4.4% with previous two cesarean section and 5.5% in previous three cesarean section. In present study increased frequency of scar dehiscence and scar rupture was not observed with increased number of previous C-section. The incidence of scar dehiscence was seen in 4% cases, which were asymptomatic and an incidental on table finding which is comparable to study of Nahar¹ (4%), Ramkrishnarao² (6.22%) & Suhasini's³ (4.65%) (Table 5).

Uterine rupture was seen in 8 cases (2.67%) in present study which is comparable to study of Ramakrishnarao² (2.09%) and Farkhundah et al⁸ (1.6%). Repair of rupture uterus done in 7 cases and one case cesarean hysterectomy were done due to unreparable rupture of uterus. (Table 5)

In the present study placenta previa and adherent placenta is present in 2.33% cases and .33% cases respectively which is comparable to study of Wuttikonsammabit et al⁸ study (1.1%, 1.3%).(Table 5)

In present study cesarean hysterectomy is performed in three cases (1.34%) which is required for atonic uterus in two cases (66.6%) and for rupture uterus in one case (33.33%). In study conducted by Shellhas¹⁰ 0.5% cases require cesarean hysterectomy.(Table 5) In present study .67% of the cases had bladder injury which was managed on table by suturing the bladder in two layers. Study conducted by Nahar k¹, Ramkrishnarao² and Suhasini⁵ incidence of bladder injury was .6%, .69% and 1.2% respectively.(Table 5)

CONCLUSION

We conclude from present study that repeat C-section is associated with significant intraoperative morbidity. The difficulty during repeat cesarean section can be reduced by educating cases of primary cesarean section about need of good antenatal care, need of last few visits to a tertiary level centre in order to decide the mode of delivery and to undergo elective or emergency cesarean section in a centre both better equipped and manned and also to maintain and preserve all the records and details of previous cesarean delivery as it could play a very vital role in deciding and handling the women in the subsequent pregnancies and intra operative complications.

Small family norms should be encouraged with awareness and availability of all family planning methods. Cases of primary C-section should also be educated about various family planning methods like PPIUCD so subsequent early pregnancy can be avoided, that will reduce rate of repeat C-section and their complications during repeat C-sections. The best technique to reduce multiple potential risk of repeat cesarean sections is to reduce the rate of primary and repeat cesarean section whenever possible.

TABLES

TABLE NO. 1: DISTRIBUTION OF CASES ACCORDING TYPE OF UTERINE INCISION

Uterine Incision	No Of Cases	Percentage
TCLI	274	91.33
Inverted T Shaped	4	1.33
J Shaped	2	.67
Upper Uterine Segment	0	0
Scar Dehiscence	12	4
Rupture	8	2.67
Total	300	100

TABLE NO. 2: DISTRIBUTION OF CASES ACCORDING TO EXTRACTION OF FOETUS

Delivery of Foetus	No Of Cases	Percentage
Vertex	270	90
Breech	20	6.67
Patwardhan Technique	8	2.67
Assistant help from below	2	0.67
Total	300	100

TABLE NO. 3: DISTRIBUTION OF CASES ACCORDING TO DELIVERY OF THE PLACENTA

Delivery of Placenta	No Of Cases	Percentage
Spontaneous	285	95
Manual Separation	15	5
Total	300	100

TABLE NO. 4: DISTRIBUTION OF CASES ACCORDING TO INTRAOPERATIVE MATERNAL MORBIDITY

Complications	No of Cases	Percentage (300 Cases)
Adhesions	106	35.33
Thinned out lower uterine	39	13
Hemorrhage	38	12.67
Bladder High Up	34	11.33
Extension of uterine incision	16	5.33
Haematoma	13	4.33
Scar Dehiscence	12	4
Rupture of Uterus	8	2.67
Placenta Previa	7	2.33
Cesarean Hysterectomy	3	1
Bladder Injury	2	.67
Adherent Placenta Previa	1	.33

TABLE NO. 5: RELATION BETWEEN THE NO. OF PREVIOUS C-SECTION WITH INTRAOPERATIVE DIFFICULTY IN PRESENT C-SECTION

Complications	No Of Previous C-Section			
	1 (223) (%) (n)	2 (70) (%) (n)	3 (5) (%) (n)	4 (2) (%) (n)
Adhesions	27%(62)	55.7%(39)	100%(5)	0
Thinned out lower uterine segment	11.65%(26)	12.85%(9)	40%(2)	100%(2)
Hemorrhage	10.31%(23)	15.71%(11)	60%(3)	50%(1)
Bladder High Up	8.96%(20)	17.14%(12)	40%(2)	0
Ext. Of Uterine Incision	5.38%(12)	5.71%(4)	0	0
Haematoma	4.4%(10)	4.2%(3)	0	0
Scar Dehiscence	4.03%(9)	4.28%(3)	0	0
Rupture of Uterus	3.13%(7)	1.42%(1)	0	0
Placenta Previa	2.69%(6)	0	20%(1)	0
Cesarean Hysterectomy	1.34%(3)	0	0	0
Bladder Injury	0.44%(1)	1.42%(1)	0	0
Adherent Placenta	0.44%(1)	0	0	0

TABLE NO. 6: DISTRIBUTION OF CASES ACCORDING TO DIFFERENT TYPE OF ADHESION

Adhesion Type	No of cases	Percentage
A1 (Parietal peritoneum, anterior surface of uterus)	82	27.33
A2 (Parietal peritoneum and bladder)	15	5
A3 (Parietal peritoneum and omentum)	30	10
A4 (Parietal peritoneum and bowel)	1	.1
A5 (Omentum and uterus)	51	17
A6 (Omentum and uterovesical fold)	3	1
A7 (Bladder & uterus {dense})	20	6.66
A8 (Bladder & uterus {Loose advancement})	20	6.66

TABLE NO. 7: MANAGEMENT OF DIFFERENT COMPLICATIONS

Management	No of cases	Percentage (300 cases)
Adhesiolysis	106	35.33
Extension Sutured	16	5.33
Extra Hemostatic Suture	12	4
Intrauterine Packing	15	5
Bilateral Uterine Artery Ligation	6	2
Cesarean Hysterectomy	3	1
Bladder Repair	2	0.66
Repair of ruptured uterus	7	2.33

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