

TO STUDY THE INCIDENCE AND TYPE OF SURGICAL DIFFICULTIES ENCOUNTERED IN REPEAT CESAREAN SECTION IN COMPARISON WITH THE PRIMARY CESAREAN SECTIONS.

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Abstract

Cesarean section is the most common surgery performed with over 30% of deliveries occurring via this route. This number is likely to increase given decreasing rates of vaginal birth after cesarean section (VBAC) and primary cesarean delivery on maternal request, which carries the inherent risk for intraoperative complications. Previous C-section delivery was a major indication for a repeat C-section delivery. The present study aims knowing the intra-operative difficulties encountered by an obstetrician, in this highly evolved surgical procedure called C-section especially in a repeat C-section. It was a Prospective observational study conducted on 60 cases of repeat cesarean section in c/o previous one cesarean section. Difficulties encountered while operating on cases of previous one cesarean section were noted. The intraoperative complications were compared with respect to adhesions (peritoneal, bladder, bowel, omental etc), blood loss, extension of tears over uterus, bladder injury, scar dehiscence, uterine rupture, need for hysterectomy. In present study, following intraoperative morbidities were encountered- adhesions 38.33%, advanced bladder 20%, excess blood loss 10%, placenta accrete was found in 1.67%, thinned out scar seen in 5%. Bladder injury seen in 1.67% patients. No cases of uterine rupture & bowel injury were noted. None of the patient needs caesarean hysterectomy. In modern obstetric practice, objective is safe motherhood and healthy baby by proper management. From present study, it can be concluded that repeat caesarean sections in c/o previous one cesarean section are associated with increased complications which lead to increased maternal morbidity

Keywords: Primary Cesarean section , Repeat Cesarean section , Cesarean Section Difficulties.

Introduction

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, life saving 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 complications especially during a repeat cesarean section in many countries.[1] For e.g. In USA, CS rates increased from 5-25% in first 2 decades.[2] in China, in the part 3 decades, the proportional of babies delivered by C-section increased from 4.7 to 22.5%.[3] In Brazil, the CS rates increased from 14.6% in 1970 to 31% in 1980.⁴ In India, the national C-section rate is 16.6%. [4] However there has been an increase in the C-section rate in the urban. Centers of India.[5] For e.g. The rate of C-section in Chennai is 45%.[6] After any lapotomy it is fairly common to develop scar tissue, adhesions and bladder extension. C-section holds no exception to this. Scaring and adhesion formation is known to cause increase in the major complication rates from 4.3 to 12.5% depending up an the number of

previous cesarean section.[7] Intra peritoneal adhesions have an incidence of 5.5% to 42.5%.[8] Previous C-section delivery was a major indication for a repeat C-section delivery.[9] The present study aims knowing the intra-operative difficulties encountered by an obstetrician, in this highly evolved surgical procedure called C-section especially in a repeat C-section.

Aim: To know the various intraoperative complications encountered during of repeat cesarean section in c/o previous one cesarean section.

Objective: To study the incidence & type of surgical difficulties encountered in repeat cesarean section in c/o previous one cesarean section.

Material and Methods:

Present study was conducted at Department of Obstetrics and Gynecology in Sir T Hospital, Bhavnagar from January 2017 to July 2019. It was a Prospective observational study conducted on 60 cases of repeat cesarean section in c/o previous one cesarean section. An informed consent was taken. Patients were selected according to inclusion and exclusion criteria.

- Inclusion criteria: Previous one cesarean section.

- Exclusion criteria :
 1. First cesarean section
 2. Previous 2 or more cesarean section
 3. H/o other abdominal surgeries.

Difficulties encountered while operating on cases of previous one cesarean section were noted. The intraoperative complications were compared with respect to adhesions (peritoneal, bladder, bowel, omental etc), blood loss, extension of tears over uterus, bladder injury, scar dehiscence, uterine rupture, need for hysterectomy etc. The operating time (defined as skin incision to skin closure) was noted. Intra peritoneal adhesions of varied types increased surgery duration by causing difficulties in opening abdomen. Routine pre operative investigations like Complete blood count, Hemoglobin percentage, Urine routine were done.

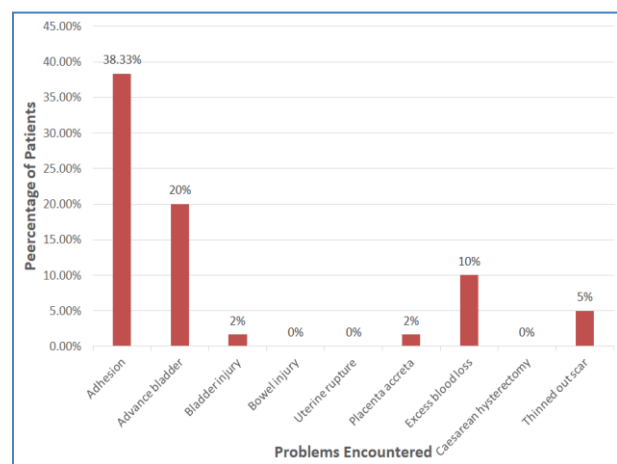
Statistical analysis: All statistical calculations were done using computer programs Microsoft Excel 2007 and SPSS version 21. Numbers and percentages were calculated.

Results:

In present study total 60 patients of repeat cesarean section in c/o previous one cesarean section was taken.

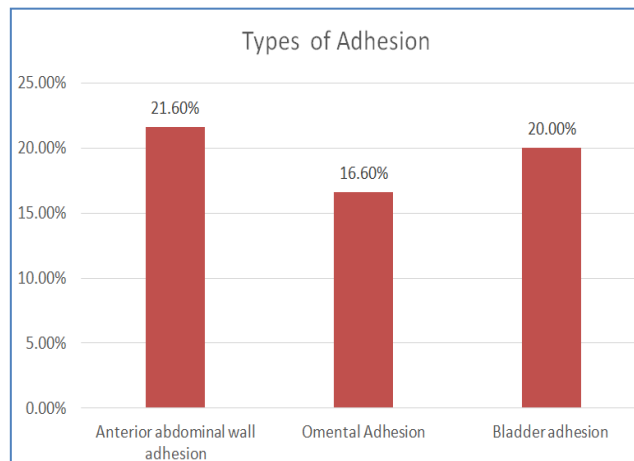
Table 1: Problems encountered in repeat cesarean section.

Problem encountered	Number of Patients	Percentage of Patients
Adhesion	23	38.33 %
Advance bladder	12	20%
Bladder injury	01	1.67%
Bowel injury	0	0%
Uterine rupture	0	0%
Thinned out scar	3	05%
Placenta accreta	1	1.67 %
Excess blood loss	6	10%
Caesarean hysterectomy	0	0%



Graph 1: Intraoperative complication observed with repeat cesarean section.

The urinary bladder was advanced (adherent at a higher level of anterior uterine wall) in 20.00% of the patients of repeat cesarean section. The bladder was inadvertently injured in 1 case of repeat cesarean section. One case of (1.67%) placenta accreta was found but in that case hysterectomy was not needed. Uterine rupture was not seen in any case. Excess blood loss was noted in 10%.



Graph 2: Types of Adhesion.

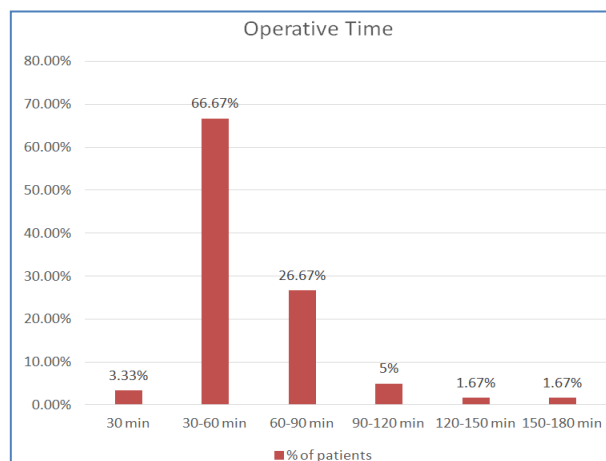
Above graph shows various types of adhesions encountered during repeat Cesarean section.

21% were anterior abdominal wall adhesion, 16.6% were omental adhesion, and 20 % were bladder adhesions.

Table 2: Number of Patients required Blood Transfusion.

Number of Blood Transfusions	Number of Patients	Percentage of Patients
0	45	75%
1	09	15%
2	06	10%

Table 2 shows number of patients required blood transfusion. 75% patients did not required blood transfusion. Out of 15, 11 patients require blood transfusion because of intraoperative complication & 4 patients require due to preoperative less hemoglobin.



Graph 3: Minimum operative time.

Graph 3 shows minimum operative time. Total operating time in cases with adhesions was significantly longer. In this study Mean operative time was 60 min. Minimum time in this study was 30 min & Maximum time was 170 min.

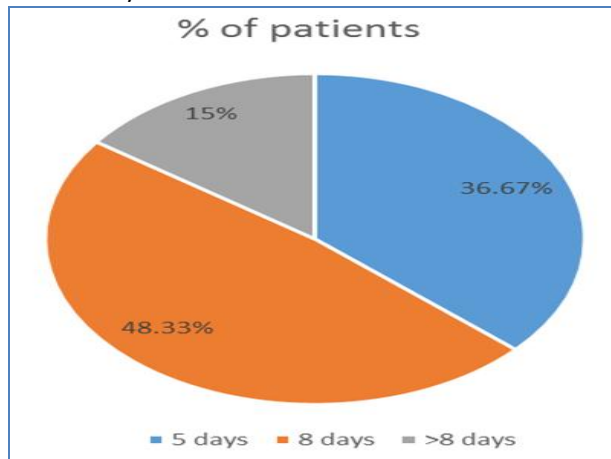


Diagram 1: Post operative day of discharge from hospital.

Among 60 patients, total 22 patients were discharged on 5th postoperative day, 29 patients were discharged on 8th postoperative day after stitch removal. 9 patients had >8 days stay because of wound complication. Total 11 patients having wound infection, among them 3 patients required Resuturing, another were healed by Primary healing.

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, life saving 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 complications especially during a repeat cesarean section in many countries [10]. In present study, following intraoperative morbidities were encountered- adhesions 38.33%, advanced bladder 20%, excess blood loss 10%, placenta accrete was found in 1.67%, thinned out scar seen in 5%. bladder injury seen in 1.67% patients. No cases of uterine rupture & bowel injury were noted. None of the patients need cesarean hysterectomy. In a study by Khusboo et al complication rate were adhesions (35%), thin LUS (19%), extension of uterine incision (3%), postpartum haemorrhage (5%) and placenta previa / accreta (5%) [11]. In a study by Joseph et al, the complication rate were adhesions (34%), thin LUS (17%), extension of uterine incision (3%), postpartum haemorrhage (5%), placenta previa (3%) and placenta accrete (2%) [12]. Although peritoneal adhesions develop in the overwhelming majority of intra-abdominal and pelvic surgery. The most common adhesions found in the group are between bladder and uterus and also between uterus and omentum. Most of the patients require prolonged hospital

stay due to intraoperative complication and wound infection. For previous caesarean pregnancy – chance of bladder injuries increases as number of caesarean section increases. [13] Majority of these cases were associated with increased bleeding due to increase in raw surface following adhesiolysis and increased operating time. [14].

Conclusion:

In modern obstetric practice, objective is safe motherhood and healthy baby by proper management. From present study, it can be concluded that repeat caesarean sections in c/o previous one cesarean section are associated with increased complications which lead to increased maternal morbidity. The best way to reduce this is by reducing primary section rates especially where indication is maternal request by counselling patients. Vaginal birth after CS option should be recommended to these patients whenever possible.

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