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Fourth Cesarean Section and onwards – How safe it is?, A retrospective Study

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Abstract

Till date cesarean section is the most widely performed abdominal surgery worldwide due to it's efficacy, safety, simplicity and survival for the two benefits. Overall cesarean section rate in India is 17%. Rate has risen up rapidly over the last 10 years from 8.5% in 2005 – 06 to 17.2% in 2015-16, driven particularly by increase in private sector and in Urban areas [1]. In India, a male baby is considered essential in family and people opt more cesarean section if it is safe. Even in some cases of bad obstetric history, with only one or two alive babies, couple desire for more children. Here is a retrospective study of 35 cases of 4th cesarean section onwards as a study group and 300 cases of second to third cesarean as control group. All surgery and study was conducted at urban center of Lord Buddha Koshi Medical College, Saharsa, Bihar from 2016 to 2019. One thousand two hundred eighty seven cesarean section was done altogether out of which 35 cases (0.27%) were cases of multiple repeat cesarean sections (MRCS). Alper et al, Turkey [2], quoted 0.35% rate. So it is still rare. 300 cases were selected randomly as control group.

Aim

The aim and objective of the present study is to evaluate the safety and risk of surgery in multiple repeat cesarean sections.

Methods

The study was performed by a retrograde evaluation of hospital record in between Jan 2016 to Jan 2019. This study was performed in accordance with the ethical standards of the declaration of the Helsinki and was approved by local ethics committee of out institution. A total number of 1287 Cesarean sections were done out of which 30 had forth cesarean and 5 women had fifth cesarean and two of then underwent again within 3 years for 6thcesaerean.

Out of 30 cases of C-section, 21 cases had bad obstetrical history with one or two alive babies. 9 cases of 4th CS and all cases of 5thcsection onwards wanted to have male babies. All women belong to in between 21 years to 38 years of age.

In the study group, 11 had all previous surgeries here. 24 cases had been operated outside once or twice. 20 had Pfannenstiel incision, 12 had vertical incision and 3 cases had both vertical and transverse incision. Here previous incisions were followed and in case of double incision, either of them was chosen.

There was mild to moderate adhesion in those cases which had previous surgeries outside. Those cases, where previous surgery was done in this institution; there was non or negligible adhesion. In both cases of 6th C-section there was no adhesion. 300 cases were selected as control group comprising of 2nd to 3rd C- section. Out of each 75 were elective cases either due to previous surgery, bad obstetrical history or High risk pregnancy. Emergency surgery was done for fetal distress, APH, cephalo pelvic disproportion, pre-eclampsia / eclampsia and obstructed labor. 58 cases has vertical scar and rest had transverse scar. All elective cases done, after 37 weeks of pregnancy. Mild to moderate adhesion was present in vertical scar incision. 3 cases of vertical abdominal incision had upper segment transverse scar with thinning of scar or partial rupture and omental adhesion. Following demographic data was noted like maternal age, GPLA status, Number of previous surgeries, Apgar score at 1 and 5 minutes, per operative and post-operative complications and need for blood transfusions.

At our institution, all MRCS cases were performed by me. Lines of previous skin incision were followed. In 3 cases of control group with vertical incision there was high upper segment transverse scar with complete thinning or partial dehiscence with mild to moderate adhesion. These cases presented mild pain or leakage in between 34 to 37 weeks. 3 cases of 2nd and 3rdC section have severe placenta accreta who needed several units of blood transfusion.

Results

Out of 35 patients in MRCS group, 30 cases had 4 surgeries, 5 had 5th surgeries and 2 of them had 6thCsection. Out of control group of 300 cases, 211 came for second surgery and 89 presented for 3rd surgery. Maternal age and parity were slightly higher in MRCS group. Associated complications like tear, bleeding, poor Apgar score and need of blood transfusion were higher in control group. It was due to either poor previous surgery or late arrival in institution with pain/bleeding/obstructive labour. All bad cases were advised for tub ligation / hysterectomy. Only selected cases with least per operative complication were allowed to go for 4th or onwards surgery. There was one VVF in control group due to left ureteric ligation due to tear extension which was repaired later on by urologist. Out of three cases of placenta accreta, two needed hysterectomy. Apgar score was better in MRCS group due to proper selection of cases. 2 cases of 6thCSection were completely adhesion free. No intraoperative or post-operative complications occurred. More operations might have been done but patients opted for tub ligation as they had male babies this time.

There was a maternal death in control group due to PPH of Coagulopathy. She was an unbooked case, came with obstructed labor and started having bleeding after fetal extraction. Conservative procedures fail. A team of surgeons were summoned and subtotal hysterectomy done. Bleeding was arrested temporarily but within 30 minutes massive blood poured out from drainage and lady could not be saved. (Table-1 to Table-4)

Table 1: Demographic and Clinical Presentation (Values are mean or n)

Variable	Study group (N=35)	Control (N=300)
Mean Maternal Age	33 Years	28 Years
BMI	24	23.5
Weeks of gestation	38	37
Elective C Section	34	75
Emergency C Section	1	225
Tubligation	35	112
Mid Line incision	12	85
Mid line upper segment vertical incision	--	2
Upper transverse incision	--	3

Table 2: Complication during surgery in Study and control group

Variables	4th C-Section (30)	5th C-Section (5)	6th C-Section (2)	Control Group (300)
Adhesion	6 (20%)	1(20%)	Nil	55 (18.3%)
PPH	2 (6.6%)	Nil	Nil	24 (8%)
Tear Extension	4 (13.2%)	Nil	Nil	28((9.3%)
NICU Admission	3(10%)	1	Nil	25 (8.33%)
Bladder Bowel Injury	Nil	Nil	Nil	1(.33%)
Placenta Previa	1 (3.33%)	Nil	Nil	16 ((5.33%)
Placenta Accreta	Nil	Nil	Nil	3 (1%)
Post-Operative Fever	2(6.6%)	Nil	Nil	22(7.33%)
Blood Transfusion	1(3.33%)	Nil	Nil	14 (4.6%)
Hysterectomy	Nil	Nil	Nil	5

Table 3: Post-Operative complications

Variable	Study Group(35)	Control Group(300)
HB Decrease	1.12 gms	1.5 gms
Blood Transfusion	--	6
Wound Infection	1	15
UTI	1	25
Temp rise for >48 Hours	--	11
ICU admission	--	3
Maternal Mortality	Nil	1

Table 4: Study of neonates

Neonates	Study	Control
Apgar score Less than 7 at 5 minutes	2	26
Preterm	Nil	33
NICU	2	56
Deaths	Nil	16

Discussion

With better an aesthetic and operative facilities, multiple repeat C section are quiet safe and getting more and more common. Here a retrospective study was made to evaluate safety of such procedures. Adhesions, PPH, tear extension were almost same in both groups whereas fetal/neonatal complications were higher in control group.

M Steven Piver [3] presented case series of 3060 cases out of which 560 operations were performed in MRCS (multiple repeat cesarean sections) groups over 123 patients. In his series, placenta praevia incidence was 3.2% and total post operation morbidity was 16.2%. He even quoted Potter M from Road islands with a personal experience of 13 successful C-sections upon women. This could be the highest operation number upon a lady.

M. Rashid and Rabia S Rashid [5] from Riyadh Military Hospital, Saudi Arabia, quoted 308 case records of 5th to 9th cesarean with a control group of 306 patients undergoing 3rd or 4th C-section. He inferred longer operative time with an increased rate of severe adhesion. There was no significant difference in complications. Incidence of placenta previa and placenta accreta was similar in both groups.

Robert M Silver & Mark B Landon et al [5], in a prospective observational cohort of 30132 women, who had 1st to 6th cesarean deliveries, found increased number of placenta accreta, cystotomy, bowel injury, ureteric injury, ICU admission, blood transfusion requiring more than 4 units and increased duration of operative time and hospital stay significantly increases with increase in number of cesarean deliveries.

Ali Gedik Basi [6], in his study of 122 pregnant women undergoing 4th and 5th cesarean sections concluded lower birth rates, lower Apgar score at minute 1 and 5, higher number of fetal deaths, higher rate of omental adhesions, peritoneal adhesions, etc.

In our study, we perceived that not the number of surgeries, rather good ante natal care and good selection of cases, meticulous technique, line of incision, tissue response of the patients and expertise of Obstetrician matters most. We routinely stitch the visceral and parietal peritoneum with instillation of 250-300 ml of normal saline in abdominal cavity before closure and we found least/none adhesions in our repeat cases.

References

1. Alison Peel, Abhishek Bhatia and Meensakshi Gautam. A qualitative study of health provider's reason for high rates of cesarean. https://www.ncbi, nlm nih, gov/pmc .
2. Alper Biler, Atalay Ekin, Aykut Ozcan, Abdurrahman Hamdi Inan, Tayfun Vural, Emrah Toz. Is it safe to have multiple repeast cesarean sections? A high volume tertiary care center experience. Pak J. Med Science. 2017;33(5):1074–1079.
3. M Steven Piver and Robert A Johnson SR. The safty of multiple cesarean sections. Obstretic and Gynaecology.1969;34(5).
4. Rabia M, Rabia S Rashid. Higher order repeat cesarean section, How safe are five or more?. BJOG. 2004;111:1090 – 1094.
5. Robert M Silver, Mark B Landon, Dwight J Rouse, Kenneth J Leveno, Catherine Y Spong, Elizabeth A Thom and et al. Maternal morbidity associated with multiple repeat cesarean deliveries. Multicentre study, Obstet Gynecol. 2006;107(6):1226-1232.
6. Ali Gedic Basi, Alslan Akyoi, Banu Bingol, Demet Cakmak, Akif Sargin and et al. Multiple repeated cesarean deliveries: operative complications in the fourth and fifth surgeries in urgent and elective cases. Taiwanese Journal of Obstretics and Gynaecology. 2010;49(4):425 – 431.