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An Observational Study of Intraoperative Complications during Lower Segment Caesarean Section at a Tertiary Care Institute

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Abstract

Introduction: Cesarean section is most common obstetric surgery performed worldwide. Though the caesarean section is a safe procedure still complications that have adverse consequences for the mortality and morbidity of both the mother and the newborn are well documented in the literature. So this study was done to observe various intraoperative complications encountered during lower segment caesarean section.

Method: This observational study was conducted at a tertiary care institute of Rajasthan over a period of 12 months. 450 pregnant patients undergoing caesarean section were studied in terms of intraoperative complications during lower segment caesarean section. Data were studied and statistically analysed.

Results: Repeat CS (38.4%) was the most frequent indication of the CS followed by foetal distress (12.7%) and on maternal request (9.1%). Most common complications observed were intraperitoneal adhesions

ranging from flimsy adhesion (11.8%) to dense adhesion (3.6%), extension of uterine angle (9.8%), difficulty in delivering the foetal head (7.3%), traumatic PPH (8.2%) and atonic PPH (6.9%). Most common anaesthesia related complications observed was intraoperative hypotension (14.9%) followed by spinal headache (9.3%), The complication rate increases with increase in number of CS. Risk of intra-peritoneal adhesions, extension of uterine angle, PPH, scar dehiscence and bladder injury were significantly more in women with previous 2 or more CS than primary CS (p --<0.00001 for each).

Conclusion: Best technique to reduce multiple potential complications of repeat caesarean section is to reduce the rates of primary and repeat caesarean sections whenever possible. Women should be counselled and whenever possible VBAC should be encouraged.

Keywords: Caesarean Section, Intra-operative Complications, Adhesions, PPH

Introduction

Caesarean delivery defines the birth of a foetus via laparotomy and then hysterotomy.[1]A Caesarean section is usually performed when a vaginal delivery would put the baby's or mother's life or health at risk, although recently it has also been performed upon maternal requests with no obstetric or medical indication. Consistent increase has been observed in the rate of Caesarean section deliveries in most of the developed countries and in many developing countries, including India, The rate of caesarean section in India has increased from 17.2% in 2015-16 (NFHS-4) to 21.5% in 2019-21 (NFHS-5)[2]. The increase in caesarean section is more in private sector [from 40.9% to 47.4%] than in public sector [from 11.9% to 14.3%].[2] Similar trend is seen in Rajasthan also. In Rajasthan rate of caesarean section in India has increased from 8.6% in 2015- 2016 [NFHS-4] to 10.4% in 2019-2021[NFHS-5][3].The increase in caesarean in private sector was from23.2% in 2015-16 (NFHS-4) to 26.9% in 2019-2021 (NFHS-5) and in public sector increase in caesarean rate is from 6.1% in 2015-16 (NFHS-4) to 7.2% in 2019-21 (NFHS-5)[3]. The reasons for increase in caesarean rate are multifactorial like increase in maternal age and associated medical risk factors, maternal requests for caesarean section and changing obstetric practices like increase in rate of induction of labour and continuous electronic foetal monitoring and medicolegal concerns.[4]

Caesarean section has however evolved into one of the safest operative procedures with advancements in surgical techniques, anaesthesia and patient care, availability of blood, better antibiotics, more meticulous foetal monitoring and better neonatal care facilities.[5] Though the caesarean section is a safe procedure still complications that have adverse consequences for the mortality and morbidity of both the mother and the newborn are well documented in the literature. Intraoperative morbidities such as uterine incision extensions, adhesions, thinned lower uterine segment, advanced bladder, extension of uterine incision, scar dehiscence, excess blood loss, uterine rupture, bladder injury and caesarean hysterectomy are noted in patients underwent caesarean deliveries.[6] It has also has been reported that complication rate is higher in emergency caesarean section than elective caesarean section and for repeat caesarean section than primary caesarean section.[5] With subsequent caesarean Section, there is increased risk of encountering adhesions, morbidly adherent placenta, extension of uterine incisions, possibility of bowel or bladder injuries, need for blood

transfusion, longer hospital stays, and sometimes even hysterectomy.[7] The risk increases with increasing number of caesarean section, parity, early marriages, early conception, short interval between subsequent pregnancy, undernourishment, inadequate antenatal checkup, high prevalence of illiteracy and poverty especially in our Indian women.[6] Very few studies have been done in our states to find various intraoperative complications in lower segment caesarean section. So, this study was done to observe various intraoperative complications encountered during lower segment caesarean section.

Material and Methods

This was an observational study conducted in the Department Obstetrics and Gynaecology, S.M.S. Medical College, Jaipur between October 2023 to January 2025. Sample size was calculated as 430 cases of LSCS as per previous study[6] which shows percentage of complications in LSCS 4.52% for 95% confidence interval, 80% power and 2% absolute error and sample size was enhanced to 450.

Inclusion Criteria

- Women undergoing LSCS
- Women who understand and willing to participate in the study
- Women not participating in other study

Exclusion Criteria

- Women with history of previous abdominal surgery other than caesarean section.
- Women presenting with uterine rupture.

After applying inclusion and exclusion criteria 450 women undergoing caesarean section were included in the study. Detail history such as age, parity, detailed obstetric history, course of present pregnancy, indication of previous caesarean, antenatal, intra and post-operative complications in previous pregnancy, any history of surgical procedure like D and C, findings of physical and obstetric examination, investigations (ultrasonography especially for placental localization) were noted. Indication of LSCS, elective or emergency LSCS were also noted.

Women were categorized on the basis of the number of caesarean deliveries that they had undergone (primary CS, previous 1CS, Previous 2CS and previous 3 or more CS). The intra-operative complications were noted and then compared with respect to adhesions, haemorrhage, extension of tears over uterus, injury to bladder, scar dehiscence, uterine rupture, need for hysterectomy etc. All the intra-operative complications were managed promptly. In rare circumstances, caesarean hysterectomy was decided when all the measures to preserve the uterus seemed to have failed like in cases of placenta accreta or uterine rupture. Any intraoperative anaesthesia related complication if occurred were also noted. Data were entered in to MS excel sheet and analysed.

Results

Table 1 shows distribution of the women according to their socio-demographic characteristics. Most of the women belonged to 20 – 30 age group (72.7%). Mean age of the women was 26.4 ± 4.4 years. Majority of the women in present study belonged to rural area (64.2%). Most of the women (46.7%) in present study were overweight as per Asian Cut off for BMI, followed by obese (34.7%) and with normal BMI (18.6%). Mean BMI of the women was 24.39 ± 2.25 Kg/m^2. Majority of the women in present study were primigravida (35.8%) followed by second gravida (31.8%) and gravida 3 or more (32.4%). Out of 450 women who undergone caesarean section for various indications, 277 women (61.6%) had primary caesarean section and

130 women (75.1%) had previous 1 CS and 24.9% had previous 2 CS or more. Majority of the CS were emergency CS (61.6%) and only 38.4% women had elective CS.

Table 2 shows distribution of the women according to their gestational age. Majority of the women (70.7%) had gestational age between 37 weeks to 42 weeks. Mean gestational age was 37.4 ± 2.5 weeks.

Indications for LSCS done are shown in Table 3. Repeat CS (38.4%) was the most frequent indication of the CS followed by foetal distress (12.7%) and on maternal request (9.1%).

In Table 4 type of anaesthesia used and anaesthesia related complications encountered during Caesarean section are shown. Majority of the women received spinal anaesthesia (95.1%), 3.1% women received general anaesthesia for CS and in 3.6% women general anaesthesia was supplemented as spinal anaesthesia failed. Out of 450 women 138 (30.7%) women had anaesthesia related complications. In 14.9% women there was hypotension intraoperatively which was managed by IV fluids. 9.3% women had spinal headache, 2.9% women had high spinal and in 3.6% women spinal anaesthesia failed they were supplemented by GA.

Table 5 shows various intraoperative complications observed during caesarean section. Most common complications observed were intraperitoneal adhesions ranging from flimsy adhesion (11.8%) to dense adhesion (3.6%), adhesion of bladder over lower uterine segment (2.4%), extension of uterine angle (9.8%), bladder injury (1.6%), bowel injuries (0.7%), difficulty in delivering the foetal head (7.3%), traumatic PPH (8.2%), atonic PPH (6.9%). placenta accreta spectrum was observed in 4 women (0.8%). 2 women (0.4%) with placenta accreta spectrum required obstetric hysterectomy. In 7.3% cases previous caesarean scar was thinned out. Scar dehiscence was observed in 3.6% women. Other complications observed were uterine rupture (0.4%), uterine inversion (1.3%).

Table 6 shows complication rate in primary CS, previous 1CS and previous 2 or more CS was 58%, 50% and 86% respectively. The complication rate increases with increase in number of CS. The incidence of intra-peritoneal adhesions of varied types was 4.7% in primary CS, 23.8% in previous 1CS and 83.7% in previous 2 or more CS. There was significant difference in intra-peritoneal adhesions in three groups (p-<0.00001). Risk of extension of uterine angle, PPH, scar dehiscence and bladder injury were significantly more in women with previous 2 or more CS than primary CS (p -<0.00001 for each). PAS was seen in women with previous 2 or more CS but not in primary or previous 1 CS.

Discussion

In present study majority of the women (72.7^) were in the age group 20 -30 Years which is comparable to studies done by Rehman B U et al[8], Jawa A, et al[9], Meeta Gupta and Vineet Garg[10] and Sarma P et al[11] but in contrast to the results observed by Borkar Patil VP et al[12] where majority of the women (79%) were between 26 to 35 years of age. This may be due to the fact that early marriages are still prevalent in our state. Mean age of the women in present study (26.4 ± 4.4 years) was lower than mean age (32 ± 4.5 years) observed by Kamal et al[13]. Most of the women in present study belonged to rural area (64.2%). The results of present study are consistent with results seen by Mangi G et al[14]. Most of the women (46.7%) in present study were overweight as per Asian Cut off for BMI which is in contrast to study

done by Mangi G et al.[14] Mean BMI in present study (24.39 ± 2.25 Kg/m^2) was lower than mean BMI (29.3 Kg/m^2) observed by Kamal et al[13] in their study. Majority of the women in present study were primigravida (35.8%) followed by second gravida (31.8%). In present study 277 (61.6%) women had primary CS and 173 (38.4%) had repeat CS. Out of 173 women who had repeat CS, 130 women (75.1%) had previous 1 CS, 23.1% had previous 2 CS and 1.8% women had previous 3 or more CS. The results of the present study are in line with study done by Rana YK et al[15] and Yaghmaei et al[16]. Majority of the CS I present study were emergency CS (61.6%) and only 38.4% women had elective CS. The observation made in this study was in line with studies done by Rehman BU et al[8], Meeta Gupta and Vineet Garg[10], Mangi G et al[14], Pandya JM et al[17] and Apurwa Prasad et al[18]. Frequency of emergency Cs in their study varied from 60% to 76.5%.

Majority of the women (70.7%) had gestational age between 37 to 42 weeks. The result of this study was comparable to the result of Meeta Gupta and Vineet Garg[10]and Mangi G et al[14] where 90.5% and 77.2% of the women respectively had gestational age between 37 to 42 weeks.

In present study the most common indication for caesarean section was repeat caesarean section (38.4%) followed by foetal distress (12.7%). Results of present study are consistent with studies done by Rehman B U et al[8], Pandya JM et al[17] and Varsha Kose and Kumari Sadhvi[19]. Practice of trial of labour after caesarean (TOLAC) is less in our institute due details regarding previous CS being not available as large number of women are referred from periphery. Caesarean section on maternal request (CSMR) was done in 12.7% women in present study. With increasing living standards, more women are likely to choose CS as their preferred method of delivery to avoid the issues associated with vaginal delivery, such as the fear of pain during childbirth, subsequent pelvic floor collapse, and incontinence[20].

Majority of the women received spinal anaesthesia (95.1%) for caesarean section. In 3.1% women general anaesthesia was given and in 3.6% women general anaesthesia was supplemented as spinal anaesthesia failed. Results of this study are comparable with results of Borkar Patil VP et al[12], Huang CH et al[21] and Bloom et al[22], where majority of the patients received spinal anaesthesia for caesarean section. In present study 138 (30.7%) women had anaesthesia related complications. In 14.9% women there was hypotension intraoperatively which was managed by IV fluids. 9.3% women had spinal headache, 2.9% women had high spinal and in 3.6% women spinal anaesthesia failed and supplemented by GA. Results of the present study were comparable with results of Borkar Patil VP et al[12] and Algarni R A et al[23]. Obstetric patients are more prone to SAIH due to various pathophysiological mechanisms. During pregnancy, sympathetic activity levels increase, and the sympathetic nerve fibers become more sensitive to anesthetics. A sympathetic nerve block by SA results in an increase in the parasympathetic tone of pregnant women compared to the parasympathetic response of the general population to SA. The increased parasympathetic tone leads to systemic vasodilation, which reduces venous return to the heart. The reduced venous return is worsened by inferior vena cava (IVC) compression, leading to reduced cardiac return and output, eventually resulting in bradycardia, hypotension, nausea, and vomiting[24].

Most common complications observed were intraperitoneal adhesions ranging from flimsy adhesion (11.8%) to dense adhesion (3.6%), uterine angle extension (9.8%), traumatic PPH (8.2%), thinned out previous scar 7.3%. bladder injury was observed in 7 cases and bowel injury in 3 cases. In the study done by Rehman BU et al[8] the intrapartum complications observed were PPH (1.2%), caesarean section hysterectomy (0.5%), bladder injury (0.3%). In a study conducted by Meeta Gupta and Vineet Garg[10] various complications observed are atonic PPH (3.01%), bladder injury (1.39%) and anaesthetic complications (0.54%). Kamal et al[13] in their study observed intraoperative complications in 15% of the cases. The most common intraoperative complication was excessive bleeding, which occurred in 10% (n=25) of the surgeries. Adhesions from previous surgeries were encountered in 5% (n=13) of the cases, leading to prolonged surgical time. There were no reports of bladder or bowel injuries. Most common complications encountered in Mangi G et al study were anaesthesia related complications, need of blood transfusion and PPH[14]. In a study was done by R Wilk of-Segeva et al, 121 (6.9%) CDs were complicated by unintended uterine extension. Uterine extensions were significantly more common following induction of labor, intrapartum fever, premature rupture of membranes, a trial of labor after cesarean, advanced gestational age, emergent CD, and in particular CD during the second stage of labor (37.2% vs. 6.5%) and after failed vacuum extraction (6.6% vs. 1.1%), $p < .05$ for all. Mean extension size was 4.5 ± 1.7cm.[25]

Complication rate observed in primary CS, previous 1CS and previous 2 or more CS was 58%, 50% and 86% respectively in present study. The complication rate increases with increase in number of CS. The risk of in intra-peritoneal adhesions, extension of uterine angle, PPH, scar dehiscence and bladder injury were significantly more in women with previous 2 or more CS than primary CS (p -<0.00001 for each). PAS was seen in women with previous 2 or more CS but not in primary or previous 1 CS. The results of present study were comparable with results of Morang K et al[26]. They observed that the risk of complications increases with increasing number of caesarean section. Incidence of adhesions was significantly higher with increased number of previous caesarean sections. Somani et al[27], Joseph et al[28], Khursheed et al[29], Lyell et al[30], Morales et al[31] and Tulandi et al[32] also observed increase in complication rate as number of CS increases. Though safety of cesarean sections has increased with advances in surgical techniques and patient care, they are still associated with potential risks. Fetomaternal status, gestational age, the expertise of surgeons and anaesthetists as well as available facilities at the hospital play an important role in the occurrence of complications with repeat cesarean section[16].

Conclusion

Cesarean section rate is increasing particularly in tertiary hospital where referral cases are more frequent. Women with caesarean scar are at high risk in subsequent pregnancies particularly in a low resource country like India where antenatal care is often neglected. Best technique to reduce multiple potential complications of repeat caesarean section is to reduce the rates of primary and repeat caesarean sections whenever possible. Women should be counselled that repeat caesarean section are bound with intra-operative difficulties and complications. Whenever possible, keeping in mind the risks and difficulties, VBAC should be encouraged in women fulfilling the criteria for the procedure.

References

1 Cunningham FG *et al*. cesarean delivery and peripartum hysterectomy, Williams Obstetrics 26th edition, Mac Graw Hill, New York, 2022, 1380-1449.

2 National family health survey -5; 2019-2021, India Fact Sheet. https://www. dhsprogram.com/ pubs/ pdf/OF43/India_National_Fact_Sheet.pdf

3 National family health survey -5; 2019-2021, Rajasthan fact sheet. rajras.in › nfhs-5-rajasthan-fact-sheet-2021

4 Nazaneen S, Kumari A, Malhotra J, Rahman Z, Pankaj S, Alam A, Roy V K. "Study of Intraoperative Complications Associated With Repeat Cesarean Sections At A Tertiary Care Hospital in Eastern India. "IOSR Journal of Dental and Medical Sciences.2017;16(8):77-82

5 Singh P, Agarwal R, Yadav S. An analytical study of intraoperative, immediate post-operative and perinatal complications in previous two caesarean section. International Journal of Reproduction, Contraception, Obstetrics and Gynaecology. 2018 Oct 1;7(10):4239-43

6 Shekhar Amale, Anjali Bhirud, Pankaj Sarode. Study of intraoperative complications in lower segment caesarean section at tertiary care hospital. MedPulse International Journal of Gynaecology. July 2021; 19(1): 06-09.

7 Tailor S, Jagtap V, Rathod K, Verma R. Intra-Operative Difficulties and Complications in Repeat Cesarean Section. International Journal of Pharmaceutical and Clinical Research 2023; 15(11); 150-154

8 RehmanBU, GulH.Indication and complication of caesarean section at tertiary care hospital: a retrospective study.Int J Reprod Contracept Obstet Gynecol2019;8:1646-9.

9 Jawa A, Garge S,Tater A, Sharma U. Indications and rates of lower segment caesarean section at tertiary care hospital-an analytical study. Int J Reprod contracept Obstet Gynecol. 2016; 5(10):3466-9.

10 Meeta Gupta, Vineet Garg. The rate and indications of caesarean section in a tertiary care hospital at Jaipur, India. International journal of reproduction, contraception, obstetrics and gynecology.2017; 6:1786-1792

11 Sarma P, Boro RC, Acharjee PS. An analysis of indications of caesarean sections at Tezpur medical college and hospital, Tezpur (a government hospital). Int J Reprod Contracept Obstet Gynecol.2016;5(5):1364-7

12 Borkar Patil VP, Upadhye JJ. Anesthetic complications in cesarean section. Int J Res Med Sci 2018;6(10):1-5

13 Kamal S and E Jha. A Study of Intraoperative and Postoperative Complications in Repeat LSCS Cases. International Journal of Pharmaceutical and Clinical Research 2024; 16(1); 1902-5

14 Mangi G., Mlay P, Oneko O, Maokola W. and Swai P. Postoperative Complications and Risk Factors among Women Who Underwent Caesarean Delivery from Northern Tanzania: A Hospital-Based Analytical Cross-Sectional Study. Open Journal of Obstetrics and Gynecology. 2022;12: 243-257.

15 Rana YK, Patel AJ, Sharma P, Thakkar C. Repeat cesarean section: Its indications and impact on maternal morbidity. International Journal of Clinical Obstetrics and Gynaecology. 2024;8(5):168-171.

16 Yaghmaei M, Ajori L, Mokhtari M. Repeat cesarean sections: maternal and neonatal outcomes and complications. JOGCR. 2024;9(1):95-101.

17 Pandya JM, Pandya MJ, Joshi JM, Velani SP. Analytical study of indications of cesarean section. Int J Reprod Contracept Obstet Gynecol 2015;4(5):1460-3

18 Apurwa Prasad, Garima Bhandari, Rachana Saha. Profile of Caesarean Section at Kathmandu Medical College. JNHRC. 2017;15(2):110-113

19 Varsha Kose, Kumari Sadhvi. Study of caesarean section at tertiary care centre: a retrospective study. International journal of reproduction, contraception, obstetrics and gynecology. 2020;9:2138

20 Turner CE, Young JM, Solomon MJ, Ludlow J, Benness C. Incidence and etiology of pelvic floor dysfunction and mode of delivery: an overview. Dis Colon Rectum. 2009;52:1186–1195. doi: 10.1007/DCR.0b013e31819f283f.

21 Huang CH, Hsieh YJ, Wei KH, Sun WZ, Tsao SL. A comparison of spinal and epidural anesthesia for cesarean section following epidural labor analgesia: a retrospective cohort study. Acta Anaesthesiologica Taiwanica. 2015 Mar 1;53(1):7-11.

22 Bloom SL, Spong CY, Weiner SJ, Landon MB, Rouse DJ, Varner MW, et al. Complications of anesthesia for cesarean delivery. Obstet Gynecol. 2005;106:281-7.

23 Algarni R A, Albakri H Y, Albakri L A, et al. (January 25, 2023) Incidence and Risk Factors of Spinal Anesthesia-Related Complications After an Elective Cesarean Section: A Retrospective Cohort Study. Cureus 15(1): e34198. DOI 10.7759/cureus.34198

24 Klöhr S, Roth R, Hofmann T, Rossaint R, Heesen M: Definitions of hypotension after spinal anaesthesia for caesarean section: literature search and application to parturients. Acta Anaesthesiol Scand. 2010, 54:909 921. 10.1111/j.1399-6576.2010.02239.x

25 Renana Wilkof-Segeva, Amir Naeha, Sivan Bardaa, Mordechai Hallaka and Rinat Gabbay-Benziva. Unintended uterine extension at the time of cesarean delivery – risk factors and associated adverse maternal and neonatal outcomes. The Journal Of Maternal-Fetal & Neonatal Medicine. 2023; 36(1):1-8

26 Morang K, Lotha L, Konda KR. Intraoperative surgical difficulties encountered during repeat caesarean section in a tertiary care centre in Northeast India. Int J Reprod Contracept Obstet Gynecol 2021;10:4144-9.

27 Somani SS, Sudhir S, Somani SG. A study of intra operative maternal morbidity after repeating caesarean section. Int J Reprod Contraception. Obstet Gynecol. 2017;7(1):291-6.

28 Joseph S, Gilvaz S. A Comparative Study on Intra Operative Problems during Primary versus Repeat Caesarean Sections. Sch J App Med Sci. 2016;4:303-10.

29 Khursheed F, Sirichand P, Jatoi N. Intraoperative Complications Encountered in Patients with Repeat Cesarean Section. JLUMHS 2009; 08(1):76-79

30 Lyell DJ, Caughey AB, Hu E, Daniels K. Peritoneal closure at primary cesarean delivery and adhesions. *Obstet. Gynecol*. 106(2), 275–280 (2005).

31 Morales KJ, Gordon MC, Bates GW Jr. Postcesarean delivery adhesions associated with

delayed delivery of infant. *Am. J. Obstet. Gynecol*. 196(5), 461 (2007).

32 Tulandi T, Agdi M, Zarei A, Miner L, et al: Adhesion development and morbidity after repeat caesarean delivery. Am J Obstet Gynecol 201(1):56.e1, 2009

Legend Tables

Table 1: Distribution of women according to their socio-demographic characters

Socio-demographic Character	Number	Percentage
Age (Years)		
<20	23	5.0
20 – 30	327	72.7
≥30	100	22.3
Mean Age	26.4 ± 4.4	
Residence		
Urban	161	35.8
Rural	289	64.2
BMI (Kg/m^2)		
18 – 22.9	84	18.6
23 – 24.9	210	46.7
≥25	156	34.7
Mean BMI ± SD	24.39 ± 2.25	
Gravidity		
G 1	161	35.8
G 2	143	31.8
≥3	146	32.4
Frequency of Caesarean Section		
Primary C S	277	61.6
Previous 1 C S	130	75.1
Previous ≥2 C S	43	24.9
Category of caesarean section		
Emergency	277	61.6
Elective	173	38.4

Table 2: Distribution of the women according to Gestational Age (Weeks)

Gestational Age (weeks)	Number	Percentage
$28 - 32^{6}$	37	8.2
$33 - 36^{6}$	95	21.1
37 - 42	318	70.7
Mean GA±SD	37.4 ± 2.5	

Table 3: Distribution of the women according to the Indication of CS

Indication of LSCS	Number	Percentage
Repeat CS	173	38.4
Foetal Distress	57	12.7
On maternal request	41	9.1
Failed Induction	28	6.2
Failure to progress	25	5.6
Malpresentation	35	7.8
Twin Pregnancy	9	2.0
Hypertensive disorder of Pregnancy	28	6.2
GDM	9	2.0
Placenta Previa	7	1.6
Abruptio Placenta	5	1.2
Oligohydramnios	26	5.8
Anhydramnios	4	0.8
IUGR	4	0.8
CPD	27	6.0
BOH	7	1.6
Cord Prolapse	1	0.2
DTA	1	0.2

Table 4: Distribution according to Type of anaesthesia used and related complications

Variables	Number	Percentage
Type of Anaesthesia used		
Spinal	428	95.1
General	6	1.3
Spinal + General	16	3.6
Anaesthesia related complications		
Intraoperative Hypotension	67	14.9

Spinal Headache	42	9.3
High spinal	13	2.9
Failed spinal	16	3.6

Table 5: Distribution according to intra operative complications

Intraoperative Complications	Number	Percentage
Intraperitoneal adhesions (n=80)		
Flimsy Adhesion between omentum with uterus	53	11.8
Dense adhesion between anterior abdominal wall and uterus	16	3.6
Adhesion of bladder over lower uterine segment	11	2.4
Accidental Visceral injuries (n =54)		
Uterine angle extension	44	9.8
Bladder injury	7	1.6
Bowel injury	3	0.7
Difficulty in delivery of foetal head	33	7.3
PPH (n=93)		
Traumatic PPH	37	8.2
Atonic PPH	31	6.9
Mixed	14	3.1
Placental abnormalities (n=16)		
Placenta Previa	7	1.6
Abruptio Placenta	5	1.1
Placenta accreta spectrum	4	0.8
Previous Scar abnormalities (n=71)		
Thinned out previous scar	33	7.3
Scar Dehiscence	16	3.6
Uterine Rupture	2	0.4
Uterine inversion	6	1.3
Increased intraoperative time	158	35.1
Obstetric hysterectomy	2	0.4

Table 6: Comparison of Intraoperative Complications in Primary and Previous CS

Variables	Primary CS (n=277)		Previous 1CS (n=130)		Previous ≥2CS (n=43)		P value
	No	%	No	%	No	%	
Intraoperative Complications							
Present	58	20.9	65	50	37	86	<0.00001

Absent	219	79.1	65	50	6	14	
Various Adhesions							
Present	13	4.7	31	23.8	36	83.7	<0.00001
Absent	264	95.3	99	76.2	7	16.3	
Extension of uterine angle							
Present	10	3.6	16	12.3	18	41.8	<0.00001
Absent	267	96.4	114	87.7	25	58.2	
PPH							
Present	42	15.1	22	16.2	29	67.4	<0.00001
Absent	235	84.9	108	83.8	14	32.6	
Scar Dehiscence							
Present	0	0	10	7.7	6	13.9	<0.00001
Absent	277	100	120	92.3	37	86.1	
Bladder Injury							
Present	1	0.3	1	0.7	5	11.6	<0.00001
Absent	276	99.7	129	99.3	38	88.4	
PAS							
Present	0	0	0	0	4	9.3	
Absent	277	100	130	130	39	90.7	