

A COMPARATIVE STUDY OF THE POST-OPERATIVE MATERNAL COMPLICATIONS OF ELECTIVE VERSUS EMERGENCY LOWER SEGMENT CAESAREAN SECTION- A SECONDARY DATA ANALYSIS

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ABSTRACT

BACKGROUND

Caesarean delivery is defined as the birth of a foetus through incisions in the abdominal and uterine wall. Several studies conducted across India have shown alarming increase in the rate of caesarean section deliveries. Depending on the indication, it may be elective or emergency in nature. Caesarean sections are also associated with some maternal morbidity.

Aims and Objectives- To compare the maternal complications between elective and emergency lower segment caesarean section.

MATERIALS & METHODS

A secondary data analysis was conducted in the Department of Obstetrics and Gynaecology, Tripura Medical College & Dr BRAM Teaching Hospital, Hapania, West Tripura. 290 cases of elective and 259 cases of emergency LSCS with singleton pregnancy, from January 2016 to December 2016 were included in this study.

RESULTS

Majority of the participants (54.10%) of the elective group did not suffer from complications compared to emergency group (10.40%).

CONCLUSION

Maternal morbidity was found more in emergency caesarean sections than in elective. Though emergency operations are unavoidable, planning can help in minimising complications.

KEY WORDS

Caesarean Section, Emergency, Elective, Complication.

HOW TO CITE THIS ARTICLE: Som B, Bhaumik N. A comparative study of the post-operative maternal complications of elective versus emergency lower segment caesarean section- a secondary data analysis. J. Evolution Med. Dent. Sci. 2018;7(49):5278-5280, DOI: 10.14260/jemds/2018/1171

BACKGROUND

Caesarean delivery is defined as the birth of a foetus through incisions in the abdominal wall and the uterine wall. Caesarean section is often a lifesaving procedure that is firmly encountered in obstetric practice. Today, it is one of the most commonly performed surgical procedures, but unfortunately caesarean sections are associated with some maternal morbidity.⁽¹⁾The steadily increasing global rate of caesarean section have become one of the most debated topics in maternity care as its prevalence has increased alarmingly in the last few years.⁽²⁾Several studies conducted across India have shown alarming increase in the rate of caesarean section deliveries.⁽¹⁾

Postpartum maternal morbidity associated with caesarean sections includes wound sepsis, postpartum haemorrhage, endometritis, chest infection, septicaemia, febrile morbidity, blood transfusion complication, abdominal distension, burst abdomen, urinary tract infection⁽³⁾and anaesthesia related

complications. Depending on the indication, it can be elective or emergency in nature. Elective caesarean is when the procedure is done at a prearranged time and hence ensures better time for management. In emergency caesarean, it is done due to acute emergency.⁽⁴⁾The complications are usually less in case of elective caesarean as compared to emergency.⁽⁵⁾

Aim of the Study

To compare the post-operative maternal complications in elective and emergency lower section caesarean section in Tripura Medical College and Dr. BRAM Teaching Hospital, Hapania.

MATERIALS & METHODS

A secondary data analysis was conducted in the Department of Obstetrics and Gynaecology, Tripura Medical College & Dr BRAM Teaching Hospital, Hapania, West Tripura, India. Cases of lower section caesarean sections with singleton pregnancy from January 2016 to December 2016 were included in this present study. The total number of cases of lower segment caesarean sections conducted during this period was 738. Inclusion criteria was fixed to having detail history, full laboratory investigation, indication of operation, age between 21 and 35 years, Hb% level more than 9.0 gm/dl and no other major medical disorder. Out of 738 cases only 540 cases were eligible for the present study. Out of these 540 cases, 290 cases were elective LSCS and remaining 250 cases were emergency LSCS. The outcome indicators for the study was indication of

'Financial or Other Competing Interest': None.

Submission 26-10-2018, Peer Review 19-11-2018,

Acceptance 25-11-2018, Published 03-12-2018.

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DOI: 10.14260/jemds/2018/1171



caesarean section, fever, wound infection, wound dehiscence, urinary tract infection, abdominal distension, anaemia, post-partum haemorrhage, prolonged catheterization, prolonged hospital stay. Data was in Microsoft excel 2007 and analysed using open R software. Results expressed in frequency and percentage. Permission from Medical Superintendent of Tripura Medical College & Dr BRAM Teaching hospital was taken.

RESULTS

Gravida	Elective (%) (n =290)	Emergency (%) (n = 250)
Primi	180 (62.07%)	138 (55.20%)
Multi	110 (37.93%)	112 (44.80%)

Table 1. Distribution according to Gravida

In the present, (table no. 1) elective group majority were primi gravida (62.07%), also in emergency group majority were Primi gravida (55.20%).

Intra-Operative Complication	Elective (%) (n = 290)	Emergency (%) (n = 250)
Haemorrhage	12 (4.14%)	20 (8.00%)
PPH	7(2.41%)	13 (5.20%)
Anaesthesia Complications	6 (2.07%)	8 (3.20%)
Blood Transfusion	3 (1.03%)	5 (2.00%)
Bladder Injury	0 (0%)	2 (0.80%)
No Complication	262 (90.34%)	202 (80.80%)

Table 3. Comparison between Intra-Operative Maternal Complications

The present study (Table no 3) in intra – operative complication is less in elective group compared to emergency group (OR = 0.44, p value =0.001).

Post-Operative Complication	Elective (%) (n = 290)	Emergency (%) (n = 250)
Fever	12 (4.14%)	35 (14.00%)
Wound Infection	7 (2.41%)	34 (13.60%)
Wound Dehiscence	11 (3.79%)	6 (2.40%)
Urinary Tract Infection	22 (7.59%)	21 (8.40%)
Abdominal Distension	15 (5.17%)	29 (11.60%)
Anaemia	20 (6.90%)	21 (8.40%)
Post-Partum Haemorrhage	16 (5.52%)	32 (12.80%)
Prolonged Catheterization	15 (5.17%)	13 (5.20%)
Prolonged Hospital Stay	11 (3.79%)	23 (9.20%)
Anaesthesia Complication	7 (2.41%)	10 (4.00%)
No Complication	154 (53.10%)	26 (10.40%)

Table 4. Comparison between Post-Operative Maternal Complications

In the present study, (table no. 4) it was found that urinary tract infection is more common in elective group (7.59%) and second common complication in elective group was anaemia (6.90%). Fever is more common in emergency group (14.00%) followed by wound infection (13.60%).

DISCUSSION

The aim of the study was to compare the maternal post-operative complication between elective and emergency lower section caesarean section. In our study in elective cases 62.07% were primi gravida and 37.93% were multi gravida. In the emergency group 55.20% were primi gravida and 44.80% were multi gravida.

Another study done in Manassery⁽⁵⁾ found that in elective group multi gravida (84%) were more number than primi gravida (16%), where in emergency group primi gravida

Indications	Elective (%) (n = 290)	Emergency (%) (n = 250)
Previous Caesarean Section	122 (42.07%)	68 (27.20%)
Dystocia	11 (3.79%)	36 (14.40%)
Mal presentation	15 (5.17%)	19 (7.60%)
Foetal distress	3 (1.03%)	29 (11.60%)
CPD	56 (19.31%)	23 (9.20%)
Maternal Desire	22 (7.59%)	12 (4.80%)
Abruption	5 (1.72%)	5 (2.00%)
Placenta Praevia	9 (3.10%)	08 (3.20%)
IUGR	17 (5.86%)	12 (4.80%)
PROM	15 (5.17%)	14 (5.60%)
Hypertensive Disorder	8 (2.76%)	12 (4.80%)
Bad Obstetric History	7 (2.41%)	06 (2.40%)
Others	--	06 (2.40%)

Table 2. Indications of the Lower Segment Caesarean Section

In the present study, (table no. 2) the major indications for elective caesarean sections found to be previous caesarean Section (42.07%), followed by CPD (19.31%). In emergency caesarean section cases the major indications were previous caesarean section (27.20%) followed by dystocia (14.40%).

(64.66%) more number compare to multi gravida (35.44%). Another study⁽⁶⁾ have shown multigravida (78%) were more in number than primi gravida (22%) in emergency group.

The most common indication for caesarean section in elective group found to be previous caesarean Section (42.07%) followed by CPD (19.31%). For emergency group, most common indication was also previous caesarean Section (27.207%) followed by dystocia (14.40%). In other study common indication were previous LSCS with CPD in both groups.^{(5),(7)} In the study of Diana V et al⁽⁷⁾ foetal distress was found to be the second most common indication in emergency group.

In the present study, it was observed that post-operative complications were more in emergency group (90.60%) compare to elective group (47.90%). Similar results found in other study also.^{(1),(3),(5),(7),(8)}

Most common post-operative complication was found to be urinary tract infection in elective group (7.59%) and fever (14.00%) in emergency group. Lisha Govind KV et al⁽⁵⁾ and Diana V et al.⁽⁷⁾ also found UTI as most complication in elective group.

CONCLUSION

Maternal morbidity was found more in emergency caesarean sections than in elective. Though emergency operations are unavoidable, elective operation and planning can help in minimising complications.

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