



## EVALUATION OF MATERNAL COMPLICATIONS IN WOMEN UNDERGOING CESAREAN SECTIONS: A RETROSPECTIVE STUDY

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### ABSTRACTS

**Objectives:** To analyze trends in the LSCS rate and to analyze the indications and complications of LSCS in modern day practice. **Place and duration:** The study was carried out at Department of Obstetrics & Gynecology, Katihar Medical College and hospital, Katihar, Bihar from January 2017 to June 2017, after approval of the study by institute ethical committee. **Methodology:** Total no of patients delivered were counted and total no. of LSCS done was found. For the LSCS patients parameters like elective or emergency, parity status, indications of LSCS, were noted and analyzed. Complete data records of all the subjects along with clinical and demographic details were recorded. Complications occurring in the subjects were recorded by assessing their follow-up records. All the results were compiled and analysed by SPSS software. **Result:** Frequency of LSCS in the study period was 2014/5871(34.3%) The indications of LSCS in order of frequency were previous one LSCS in 738 (36.64%) patients, followed by fetal distress in 270 (13.4%); failure to progress in 260(12.9%), previous 2 LSCS in 86(4.27%), Breech in 120 cases(5.95%)each, PIH in 120(5.95%) cases each, antepartum haemorrhage in 60(2.97%); and oligoamnios and/or IUGR in 96(4.76%). Out of 2014 cases, elective cesarean occurred in 28 percent of the cases while emergency cesarean occurred in 72 percent of the cases. Wound infection was the most commonly encountered complication in the present study 120(5.95). Urinary tract infection occurred in 100(4.96%) of the cases while post-surgical fever was present in 80(3.97%) of the subjects. Only sixty cases showed presence of post-operative headache. **Conclusion:** LSCS rate is higher than advised by WHO and previous LSCS is the commonest indication followed by fetal distress. Obstetrical audit will help us a lot in reducing the rate of LSCS and also the complication rates.

**KEYWORDS:** Caesarean rate, previous LSCS, indications, complications.

### INTRODUCTION

Caesarean section is one of the commonest operations performed all over the worlds and its incidence is increasing. In addition to the increasing rates in developed countries rates are increasing in some developing countries.<sup>[1,2]</sup> The majority of these proceed smoothly and safely; however, caesarean section is a major, open abdominal procedure, often performed in an emergency setting leading to various complications. World Health Organization advise that Caesarean Section(CS) rates should not be more than 15%<sup>[3]</sup> (with evidencethat CS rates above 15% are not associated with additionalreduction in maternal and neonatal mortality and morbidity.<sup>[4]</sup>

### MATERIALS AND METHODS

This is a retrospective study which includes all the patients delivered by LSCS at The study was carried out

at Department of Obstetrics & Gynecology, Katihar Medical College and hospital, Katihar, Bihar from January 2017 to June 2017, after approval of the study by institute ethical comitee. In all the LSCS patients indications of LSCS were noted and their parity, nature of labour, outcome and complications was analyzed.

### RESULT

Total no of deliveries during the period was 5871 out of which 2014 delivered by LSCS there by making a LSCS rate of 34.3%.

The indications of LSCS in order of frequency were previous one LSCS in 738 (36.64%) patients, followed by fetal distress in 270 (13.4%); failure to progress in 260(12.9%), previous 2 LSCS in 86(4.27%), Breech in 120 cases(5.95%)each,PIH in 120(5.95%) cases each,

antepartum haemorrhage in 60(2.97%); and oligoamnios and/or IUGR in 96(4.76%).(Table1).

**Table 1: Various indications of LSCS.**

Indication	No of LSCS (2014)	Percentage
Previous one lscs	738	36.64
Fetal distress	270	13.4
Non progress of labour, failed induction	260	12.9
breech	120	5.95
Previous 2 lscs	86	4.27
Oligoamnios/IUGR	96	4.76
Antpartum haemorrhage	60	2.97
Preeclampsia/eclampsia	120	5.95
Other malpresentation	144	7.14
Obstructed labour	96	4.76
others	24	1.19

Out of 2014 cases, elective cesarean occurred in 28 percent of the cases while emergency cesarean occurred in 72 percent of the cases. Wound infection was the most commonly encountered complication in the present study 120(5.95). Urinary tract infection occurred in 100(4.96%) of the cases while post-surgical fever was present in 80(3.97%) of the subjects. Only sixty cases showed presence of post-operative headache.

Out of 2014 cases, elective cesarean occurred in 35 percent of the cases while emergency cesarean occurred in 65 percent of the cases. Wound infection was the most commonly encountered complication in the present study (Table 2). Maternal mortality rate of 4.6% was found in the study which was lower than earlier studies. The profile of neonatal complications observed in presentstudy were in harmony with previous reports, neonatal jaundice being the commonest (215 babies) complication followed by sepsis then birth asphyxia.

**Table 2: Complications occurring in subjects.**

Complications intraoperative	Number of subjects	Percentage of subjects
Haemorrhage	30	1.48
Bladder injury	10	0.49
Extension of uterine incision	15	0.74
Adhesion	68	3.37
Haematuria	90	4.46
<b>postoperative</b>		
Wound infection	120	5.95
Urinary tract infection	100	4.96
Post-surgical fever	80	3.97
Headache	60	2.97

## DISCUSSION

There has been a steady increase in the rate of LSCS in both developed and developing Countries. This rising

rate has become an international public health concern worldwide. LSCS rates have increased from 5-7% in 1970 to 25-30% in 2003.<sup>[5]</sup> In U.K, it rose from 9% in 1980 to 21.3% in 2000.<sup>[6]</sup> In Brazil, LSCS rate up to 50% to 72% has been reported.<sup>[7]</sup> In this study, we found 25.18% LSCS rate. In our study, previous one cs account for 42.09% and previous 2 cs accounts for 6.81% of cases. Repeat sections constitute the commonest indication for LSCS in most countries. It varies from 35% of all LSCS in the USA to 23 % in Norway, the lowest 18% being in Hungary.<sup>[8]</sup>

In this study, we found 34.3% LSCS rate. In our study, previous one cs account for 36.64% and previous 2 cs accounts for 4.27% of cases. Repeat sections constitute the commonest indication for LSCS in most countries. It varies from 35% of all LSCS in the USA to 23 % in Norway, the lowest 18% being in Hungary.<sup>[9]</sup> After one LSCS there is 67% chance of having repeat caesarean delivery.<sup>[10]</sup> The low threshold for performing VBAC (vaginal birth after cs) is probably due to fear of uterine rupture in labour which is 5.2/1000 VBAC compared with (1.6/1000) ERCD (elective repeat caesarian delivery) and it can be catastrophic leading to perinatal death (1/2000) and very rarely maternal death.<sup>[11]</sup>

On the other hand the secondary rise in repeat caesarean delivery has been associated with an increase in severe complications particularly the complication of placentation like placenta praevia and placenta accreta which in turn increases the maternal morbidity & even mortality.<sup>[12]</sup>

In our study trial of labour after cs was given very judiciously as many patients were not having documentation of previous LSCS records so were not candidate for VBAC. We are working on this group to decrease the rate of repeat cs. In our setup no trial was given to previous two or more scars due to presumed risk of maternal and fetal complications.<sup>[13]</sup>

Fetal distress is the second most common indication of LSCS. Strengthening of staff, availability of round the clock nurse and doctor, and better technology (cardiotocography, EFM) has made the detection of fetal distress easy. Computerized interpretation of CTG or use of scalp PH can be applied to definitely diagnose distress, which could save a few LSCS.<sup>[14]</sup>

Failure to progress was another major indication contributing 12.9% of LSCS cases. Failure to progress is an ill-defined terminology, arrest of dilatation or arrest of descent are often over diagnosed. We use partogram to definitely diagnose NPOL which help us to reduce LSCS rate.

Breech presentation accounts for 5.95% cases, which is higher than the average incidence of breech at term. This might be due to fact that our's is a free of cost tertiary care hospital so many patients advised LSCS in private

sector land here to undergo LSCS. Different studies from India showed incidence of emergency section was 82.7% and 85.92 %.<sup>[15]</sup> In our study, we found 72 % cases for emergency LSCS, corroborating with previous studies.

In agreement with earlier studies atonic postpartum hemorrhage was most commonly met intraoperative complication in our study contributing in 30(1.48%) patients irrespective of previous surgical history likewise post operatively wound infection was the most common complication. maternal mortality rate of 4.6% was found in the study which was lower than earlier studies. The profile of neonatal complications observed in presentstudy were in harmony with previous reports, neonatal jaundice being the commonest (215 babies) complication followed by sepsis then birth asphyxia.

Infection is the most common complication within the first 10 days after cesarean delivery. The rate of infection without prophylactic antibiotics approaches 85%, whereas the infection rate with prophylactic antibiotics is only about 5%. Prophylactic antibiotics should be administered to all patients undergoing cesarean delivery; a single dose of a first-generation cephalosporin or ampicillin is effective.<sup>[17]</sup>

## CONCLUSION

Though CS is becoming increasingly safer but issue of maternal and neonatal morbidity is still there associated with cost factor in comparison to vaginal delivery.<sup>[20]</sup> This risks are even more in recurrent pregnancies which can be a health hazard to the mother. Attempts should be done to decrease the rate of primary cs and judicious use of VBAC should be used to decrease rate of repeat cs. In subsequent pregnancies risks can be decreased by providing regular antenatal care and doing elective repeat caeserian delivery if the indication are recurrent one.<sup>[16]</sup> Furthermore, regular obstetric audit of indication of LSCS would be more than useful.

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