



Research Article

ANALYSIS OF TRENDS IN LSCS RATE AND INDICATIONS OF LSCS: A STUDY IN A MEDICAL COLLEGE HOSPITAL GMERS, SOLA, AHMEDABAD

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ABSTRACTS

Objectives: To analyze trends in the LSCS rate and to analyze the indications of LSCS in modern day practice.

Place and duration: The study was carried out over a period of seven months (from June 2013 to December 2013) at GMERS medical college, sola, Ahmedabad.

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.

Result: Frequency of LSCS in the study period was 25.18%. The indications of LSCS in order of frequency were previous one LSCS in 173 (42.09%) patients, followed by fetal distress in 45 (10.94%); failure to progress in 45 (10.94%), previous 2 LSCS in 28 (6.81%), CPD and Breech in 26 cases (6.32%) each, mal-presentation & PIH in 8 (1.94%) cases each, antepartum haemorrhage in 10 (2.43%); twin in 7 (1.7%) and oligoamnios and/or IUGR in 16 (3.89%).

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.

KEYWORDS: Caesarean rate, previous LSCS, indications

INTRODUCTION

LSCS is the most commonly performed obstetric operation worldwide. In past century, the most common change in obstetric practice that has come, is the increase in LSCS rate, to ensure a healthy outcome of the mother & newborn. Development of better anesthetic agents and techniques, availability of tertiary care neonatal facilities, better operative techniques and availability of antibiotics has given a boost to LSCS. In modern obstetrics women have four times more chance of LSCS than thirty years ago.

At present, there are no strictly defined protocols for the indication of LSCS in our country, so at present the decision of LSCS is mostly individualized and depends on the obstetrician taking care of parturient.

World Health Organization advise that Caesarean Section (CS) rates should not be more than 15% [1] (with evidence that CS rates above 15% are not associated with additional reduction in maternal and neonatal mortality and morbidity [2]).

The increase in LSCS rate has been a global phenomenon. LSCS rate in U.S.A is 29.1 % [3], England 21.5 %, [4] and in Latin American countries 40 % [5]

The present study is an effort to determine the incidence and evaluate indications of LSCS in the department of Obs & Gynae in GMERS Med. college sola. This is a step to find out indications of LSCS which may help us to reduce the incidence rate in the institute in future

patients indications of LSCS were noted and their parity, nature of labour, outcome was analyzed.

RESULT

Total no of deliveries during the period was 1632, out of which 411 delivered by LSCS there by making a LSCS rate of 25.18%.

METHODOLOGY

This is a retrospective study which includes all the patients delivered by LSCS at GMERS Medical College sola between June 2013 to December 2013. In all the LSCS

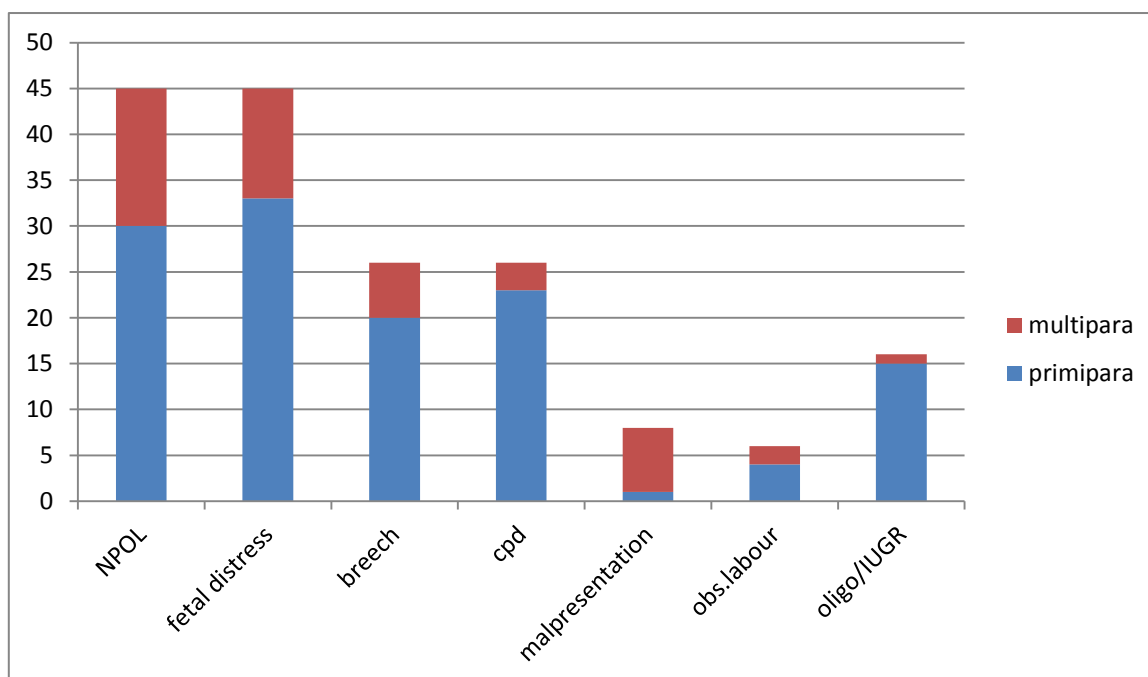
Table 1: Indications of LSCS

Indications	No. Of LSCS(total 411)	Percentage
Previous one LSCS	173	42.09
Fetal distress	45	10.94
Non Progress Of Labour includes failed induction	45	10.94
Breech	26	6.32
Cephalopelvic disproportion	26	6.32
Previous 2 LSCS	28	6.81
Oligoamnios&/or IUGR	16	3.89
Antepartum haemorrhage	10	2.43
Preeclamptic toxemia/PIH	08	1.94
Malpresentation(other than breech)	08	1.94
Obstructed labour	06	1.45
Twins	07	1.70
Others	13	3.16

Total no. of LSCS was 411. Previous one LSCS is most common indication of LSCS in present study accounting for 42.09% of case, fetal distress and non progress of labour account for 10.94% cases each, Breech and cephalopelvic disproportion account for 26 cases 6.32 %

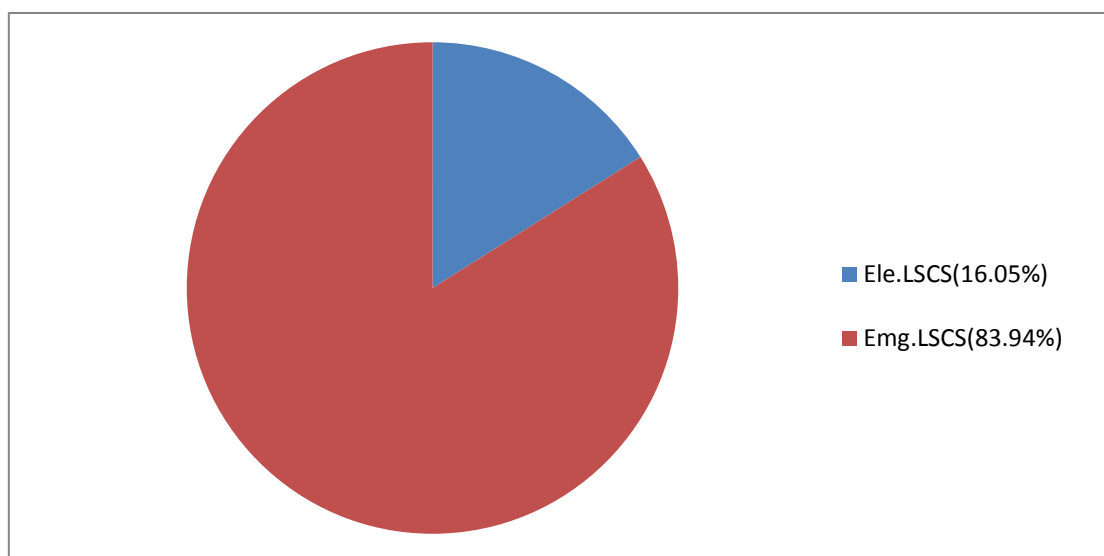
each. Previous 2 LSCS accounts for 6.81% cases. Rest in decreasing order were oligoamnios followed by antepartum haemorrhage followed by PIH and malpresentation, twins and obstructed labour. Others account for 13 cases which includes HIV, premature rupture of membranes, rupture uterus, ovarian cyst and postdatism, fibroid, and a case of previous 4LSCS.

Figure 1: Comparison of indications of LSCS in primipara and multipara



From above chart it can be seen that NPOL, fetal distress, common in primi while malpresentation was common in breech, CPD, obstructed labour and oligoamnios were multipara.

Figure 2: Comparison of elective and emergency LSCS



Out of total 411 cases 66 were elective and 345 were emergency .It shows that we are giving trial of labour to most of the patients and elective indication are more strict.

Table 2: Indications of LSCS in elective cases

Indications	No. of cases (total 66)	Percentage
Previous cs	40	60.60
Previous cs with postdatism	1	1.51
Previous cs with PIH	2	3.02
Previous 2 cs	12	18.12
Breech	6	9.06
Fibroid uterus	2	3.02
PLHA	1	1.51
Ovarian cyst	1	1.51
Twins with transverse lie	1	1.51

Out of total 66 cases 43 cases were of previous cs and 12 were of previous 2 cs, making a 83.33% cases with previous LSCS as elective indications.

Table 3: Indications of LSCS in emergency cases

Indications	No. cases(total 345)	Percentage
Previous cs	123	35.65
Fetal distress(FD)	45	13.04
Non progress of labour(NPOL) includes failed induction	45	13.04
Cephalopelvic disproportion	26	7.53
Breech	20	5.79
Previous 2 cs	16	4.63
Oligoamnios and /or IUGR	16	4.63
Obstructed labour	06	1.45
Malpresentation	08	1.94
Preeclamptic toxemia/PIH	08	1.94
Antepartum haemorrhage	10	2.89
Twins	07	1.70
Others	15	4.34



In emergency major cause of LSCS was previous cs accounting for 35.65% cases followed by NPOL and foetal distress accounting for 13.04 each. All cases of CPD, obstructed labour were emergency cases, which indicate that we do not do elective LSCS with diagnosis of CPD which help us to decrease the LSCS rate.

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(6). In U.K, it rose from 9% in 1980 to 21.3% in 2000. [7],[8] In Brazil, LSCS rate up to 50% to 72% has been reported.[9]

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 [10].

After one LSCS there is 67% chance of having repeat caesarean delivery. [11]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 [12],[13],[14].

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. [15],[16]

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. [17]

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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. [18].

Failure to progress was another major indication contributing 10.94% 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 6.32% 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 %[19].In our study, we found 83.94 % cases for emergency LSCS, corroborating with previous studies.

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 [20].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 caesarian delivery if the indication are recurrent one [21].

Furthermore, regular obstetric audit of indication of LSCS would be more than useful in defining indications in particular hospital. By implementing protocol and evidence based medicine, we can balance the rate of cs and can judiciously use the proper indication for the case.

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