



A Retrospective Study on Ceaserean Section in Semi Urban Areas- Indications

Authors

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Abstract

Caeserean Section is a common operative procedure in obstetric practice throughout the world to ensure a healthy outcome of the mother and new-born. The advent of modern anesthesia, antibiotics and availability of blood transfusions the indications of this ceaserean section are being continually extended. It has been reported that the implementation of modern technology in labour and neonatology unit showed the incidence of abdominal delivery further raised to prevent potentially grave foetal and maternal morbidities. The rate of Caeserean delivery in the United States has quadrupled from 5% of obstetric delivery in 1964 to more than 23% in 1991¹. The national C - section rate of Canada was 20% and Italy was 17.5%².

The present study to determine the incidence and evaluate its indications in the department of Obs & Gynae in GVMCH, Vellore (Govt Vellore Medical College). This is a step to find out unnecessary indications of LSCS which may in future reduce the incidence rate in the country.

In India the 'C' section rate also increased up to 35%-45%. In Tamilnadu more than 90% deliveries are conducted by Govt institutions like 'cemonc' centre. Here we want to institution than Vellore in semi urban area, GVMCH is tertiary care unit all high risk and complicated cases from PHC and GH are managed by NS.

Keyword: *Caeserean section, indications.*

Method of study

This is retrospective study in the department of obstetrics and gynaecology at Government Vellore Medical College Hospital. This study is the analysis of indications of lscs in a tertiary care centre in semi urban area. In July 2017 out of 1012 deliveries, 365 delivered by lscs. The indications of lscs were analysed.

Results

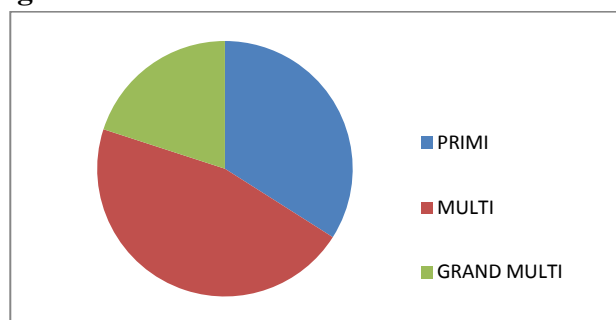
A total of deliveries occurred during the study period of which 658 deliveries were by vaginal &

354 deliveries by LSCS (The rate of LSCS among all these deliveries was 40%)

Table: 1 Age of patient who underwent LSCS

Age	Percentage
< 20	6
20 - 25	55
26 - 30	24
31 -35	12
36 - 40	3

This table shows LSCS percentage maximum at age 20 -25 years' age.

Fig: 1**Table: 2** Incidence of LSCS in relation to height

Height	Percentage
< 150 CM	35
>150 CM	65

Table – 3

Indications	Total	Primi	Multi
Previous Lscs	66		66
Fetal Distress	63	36	27
Obstructedlabour	60	30	30
Failure To Progress Including Failed Induction	32	23	9
Preeclampsia	42	34	8
Boh	11	0	11
Breech	19	11	8
Cpd	18	16	2
Transverse Lie	8	1	7
Placenta Previa	16	2	14
Eclampsia	12	8	4
Face Presentation	3	0	3
Brow Presentation	1	0	1
Vvf Repair	1	0	1
Cord Prolapse	2	2	0

This table shows foetal distress & obstructed labour were mainly responsible for LSCS in prim gravida Previous LSCS was main indication in multigravida Among all, previous H/O LSCS occupies the highest indication of LSCS.

Table-IV: Nature of operations with indications

Indications	Elective (%)	Emergency (%)
Previous Lscs	13	3
Fetal Distress	0	15
Obstructed Labour	0	14
Failure To Progress Including Failed Induction	0	10
Preeclampsia	4	5
Boh	9	0
Breech	6	0
Cpd	3	3
Transverselie	2	2
Placenta Previa	1	3
Eclampsia	0	3

Face Presentation	0	1
Brow Presentation	0	1
Previous Vvf Repair	1	0
Cord Prolapse	0	1
Total	35	65

This table shows emergency LSCS was 61% and elective LSCS was 39%.

Table -5 Comparison of primary & repeat section

Cesarean Section	Percentage (%)
Primary	52
Repeat Second	46
Repeat Third	2

This table shows the no. of primary section was more in relation to repeat section.

Table-VI: Maternal complication of LSCS

Complications	Percentage
Urinary Tract Infection	15
Wound Infection	12
Wound Dehiscence	2
Paralytic Ileus	7
Postpartum Hemorrhage	4
Chest Infection And Cough	3
Thromboembolism	0
Maternal Death	0
Total	45

This table shows urinary tract infection & wound infection are two main morbidities in this study.

Table-VII: Foetal outcome of LSCS

Fetal Outcome	Percentage (%)
Healthy	72
Asphyxiated	18
Iugr	4
Premature	3
Stillborn	1
Early Neonatal Death	2
Total	100

Discussion

Caesarean section is used in cases in which vaginal delivery either is not feasible or would impose undue risk on mother or baby. Due to greater awareness of serious foetal distress & avoidance of midforcep & vaginal breech deliveries the rate of LSCS has steadily increased from (5 % to 20 %)

In Sir Salimullah Medical College and Mitford Hospital a rising trend of LSCS rates were noted from 12.3% in 1984 to 28.15% in 1992³. In Mymensing Medical College Hospital (MMCH) a

study carried out in 1988 where the incidence was noted as 25.79%. In the present study incidence is about 35% to 45%. Rising incidence can be explained by the fact that hospital receives a good number of high risk emergency cases with inadequate or no antenatal care. Most of the patient brought late in labour after being handled by untrained birth attendants and are actually and potentially infected, often with foetal and maternal complications. Early detection & early decision also increases the incidence of LSCS.

Analysis of age of the patients showed that 77% of cases (table - I) were in the age group of maximum fertility i.e between 20 -30 years. A study in IPGMR showed 89 % amongst this age group⁴. The study of Latin American hospital showed maximum incidence > 30 years in primi patients, which might reflect delayed marriage in (western countries)⁵.

Short maternal height has been associated with an increased risk of CPD. Present study (Table - II) showed that 68% patients were >5' in height. Alam showed 76 % patient > 5' and Zaman showed 70 % >5' in their studies⁶. This may be explained by the fact that all the LSCS were not only due to CPD.

Study in IPGMR 1987, Sir Sallimullah Medical College (SSMC) & Mitford Hospital 1992 showed higher incidence in multi. Present study also correlates with it (Fig.I).

In the developed countries in the past decade indications of LSCS were breech presentation foetal distress, previous section & dystocia⁷. In this study, common indications were previous section 16%, foetal distress 15%, obstructed labour 14%, pre - eclampsia and eclampsia 12%. Previous section constitutes 20.41% in another study in our country. Present study findings correlate with it.

Repeat sections constitute the commonest indication for LSCS in most other countries. It varies from 35% of all LSCS in the USA to 23 % in Norway, the lowest 18% being in Hungary⁸.

In USA, previous LSCS emerges as a formidable and self-repeating cause of abdominal deliveries⁹.

The likelihood of vaginal birth appears to be independent of the indications for the previous LSCS (including CPD & failure of progress of labour)¹⁰

In a study in IPGMR elective LSCS was 52% and emergency LSCS was 48 %. This was because patients due to previous operation or pregnancy associated complications, admitted in that institute for elective LSCS. There are high incidence of elective LSCS in western countries because of their sophisticated electronic foetal monitoring system⁸. Different studies from India showed incidence of emergency section was 82.7% and 85.92%¹¹. Study in SSMC & Mitford Hospital findings of emergency LSCS was 69.71% and elective LSCS was 30.29%. This correlates with the present study, where emergency LSCS was 63% and elective was 37%. This may be explained by the fact that the patients were brought into hospital when crises arise, when traditional birth attendants failed to deliver them with utmost attempt not delivered at primary health care level.

In a study by Dawn and Chakrabarti at Eden Hospital, Kolkata, the incidence of morbidity was 37.5% and abdominal wound infection was major morbidity¹³.

Hammouda reported a maternal morbidity rate of 28.5% in the form of wound and urinary tract infection & there were no maternal deaths¹⁴. Present experience was similar to this observation. O' Driscoll & Foley found equally dramatic decrease in perinatal mortality (PNM) with active management of labour without any increase in the caesarean rate in Dublin¹⁵. So we can reduce perinatal mortality without rising LSCS rate by risk screening in pregnancy, careful monitoring during labour and by immediate availability of specialized neonatal care.

Conclusion

In modern obstetrics, Caesarean section is a major surgical procedure for delivery. In spite of its low rate of maternal morbidity and mortality due to improved surgical technique and modern

anesthetic skill, it still carries a slightly greater risk than normal vaginal delivery and risk is more in subsequent pregnancies. Those risks can be reduced by giving advice for a strict and regular antenatal check-up during pregnancies to emphasize the need for an elective operation, if the indications are recurrent one. Though this study is not representative of whole population, the following comments can be made:

- 1) Regular antenatal check-up should be done during pregnancy.
- 2) Birth attendants and other family welfare visitors should be trained adequately to detect and refer high risk cases to referral centre for proper management.
- 3) Improvement of transport system in the rural and remote areas.
- 4) Accurate and early decision is to be taken in performing LSCS to ensure healthy outcome.
- 5) Detailed critical review of all LSCS at morning sessions should be done whether the indications were justified or not.

To reduce the post-operative complications with LSCE some definite measures should be taken during and after operation:

1. Catheterization should be avoided if possible & if necessary, strict aseptic pre-caution must be taken to prevent ascending infection.
2. All-out effort should be taken to implement infection prevention.
3. Prophylactic antibiotic should be used in our country as maintenance of optimum level of sterility because cleanliness may not be possible in majority of cases.

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