

The indications of caesarean section in a tertiary care hospital at Jodhpur, India

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Abstract

Introduction: Caesarean section is the delivery of fetus through an abdominal uterine incision after period of viability. Caesarean section is one of the most widely performed surgical procedures in obstetrics worldwide. It is a lifesaving procedure for mother and fetus during the difficult delivery. The indications of caesarean are continuously being extended. Nevertheless, it is a great mistake to regard it as a means of finding as easy way out of all obstetrics problem and litigations. The main purpose of present study is to analyze the indication of caesarean section.

Material & methods: This retrospective study was conducted over a period of 6 month from 1st July 2018 to 31st December 2018 at the Department of OBG, SNMC Jodhpur (Rajasthan), India. Data of 1100 patients who delivered by Caesarean Section in our hospital during the defined study period was recorded and a analysis of the caesarean section indication was done.

Results: The total numbers of Caesarean Sections done included in the study period was 1100. Previous LSCS was the leading indication to the Caesarean Section rate (35.73 %) followed by fetal distress (19.64%), breech presentation (9.45%), PIH (7.18 %).

Conclusions: Being a tertiary care hospital, a high rate of Caesarean deliveries was observed. Main indication of caesarean section was previous caesarean section and fetal distress. Evidence base study result should be used to counsel the patient regarding comparison of both mode of delivery that can reduce caesarean section rate.

Keywords: Caesarean section, Indication, teaching hospital, referral

Introduction

Caesarean section is the delivery of fetus through an abdominal uterine incision after period of viability. Caesarean section is one of the most widely performed surgical procedures in obstetrics worldwide. It is a lifesaving procedure for mother and fetus during the difficult delivery. The indications of caesarean are continuously being extended. Nevertheless, it is a great mistake

to regard it as a means of finding as easy way out of all obstetrics problem and litigations. the main purpose of present study is to analyze the indication of caesarean section.

As a broad overview, caesarean delivery has higher maternal surgical risk for the current and subsequent pregnancies. This is balance against lower rates for perineal injury and short term pelvic floor disorder. For the

neonate, caesarean delivery offers lower rates for birth trauma and stillbirth. Conversely, rates of initial respiratory difficulties are greater with caesarean delivery¹.

The most common indications for caesarean delivery in our study included, in order of frequency, previous caesarean section (35.73%) fetal distress (19.64%), breech presentation (9.45%), PIH (7.18 %). To reduce the caesarean section rate, it is important to know the indication of caesarean section. So this study is focus on indication of caesarean section.

Methods

The data were collected in a retrospective manner from all the deliveries that occurred during 6 month period between 1st July 2018 to 31st Dec 2018 in the department of obstetrics and Gynaecology, Umaid Hospital, Jodhpur. This is a teaching hospital attached to Dr SN medical college, Jodhpur (Rajasthan). 1100 caesarean section case were included in the study and analysis was done.

In caesarean sections, their indications were recorded along with other demographic profile like age, residence-urban/rural. Previous obstetrics history and present obstetric parameters like antenatal care, gestational age, lie and presentation, no. of fetuses, birth weight etc. were also recorded in the format and later entered in the Microsoft excel sheet.

The various categories of indications for caesarean sections included Previous caesarean section, Fetal distress ,Breech , PIH, Previous 2 or 3 caesarean section ,APH ,Failed induction, obstructed labour, Oligohydramnios, Multifetal gestation, Cephalopelvic disproportion, Placenta previa, Mal presentation, IUGR, BOH, Cord prolapsed.

Maternal indication included were cephalopelvic disproportion, previous poor obstetric outcome, previously infertility,

advance age. Fetal indication included were malpresentation, multiple pregnancy. Placental casues were placenta praevia and planental abruption. Emergency indications were failed induction of labour, failure to progress or prolonged labour, APH, PIH, Cord prolapsed.

Results

Among the indications, it was observed that repeat C-section (35.73%) was the commonest cause followed by fetal distress (19.64%), breech presentation (9.45%) and PIH (7.18%).

Discussion

The reason for the continued increase in the caesarean rates are not completely understood, but some explanations include the following¹ :

1. The average maternal age is rising, who are at increased risk of caesarean delivery.
2. Use of electronic heart rate monitoring is associated with an increased risk of caesarean delivery rate compared with intermittent fetal heart rate auscultation. In many concern for an abnormal or nonreassuring fetal heart rate tracing lowers the threshold for caesarean delivery.
3. Most fetus presenting as breech are now delivered by caesarean. Concern for fetal injury and criteria for labor trial of breech almost guarantee that most will be delivered by caesarean.
4. The frequency of forceps and breech deliveries has decreased.
5. Rate of labor induction is continue to rise, and induced labor increases the caesarean delivery rate.
6. Prevalence of obesity increases the caesarean delivery rate.
7. Rate of caesarean delivery for preeclampsia have increased, whereas labor induction rates for these patients have declined.

8. VBAC has decreased.
9. Elective caesarean delivery is increasingly being performed for pelvic floor injury, fetal injury risk, maternal request.
10. Malpractice litigation related to fetal injury during spontaneous or operative vaginal delivery continues to contribute to caesarean delivery rate.

The present study is conducted in a tertiary care hospital attached to medical college. As such, the most of the cases attending the OPD and also those availing the emergency services are basically referred cases from Dispensaries, PHC (Primary Health Centre), CHC (Community Health Centre), and the district Hospitals. Given the situation, it may be difficult to curtail the rates in tertiary care institutes, catering to a large population of referred cases.

Table -1: Indications of caesarian section in present study.

	Indication	No.	%
1	Previous c section	393	35.73
2	Foetal distress	216	19.64
3	Breech	104	9.45
4	PIH	79	7.18
5	Previous 2,3 caesarian section	71	6.45
6	APH	35	3.18
7	Failed induction	34	3.09
8	Obstructed labour	34	3.09
9	Oligohydramnios	31	2.82
10	Multifetal gestation	19	1.73
11	Prolonged labour	20	1.82
12	Cephalopelvic disproportion	18	1.64
13	Placenta Previa	14	1.27
14	Mal Presentation	12	1.09
15	BOH	10	0.91
16	IUGR	8	0.73
17	Cord prolapsed	2	0.18

Table -2: Indication of caesarean section in various studies.

S.no.	indication	Present study	P Sharma et al ⁴	G singh et al ²	Das RK et al ⁵	Meeta gupta et al ⁶
1	Previous caesarean section	35.73 %	23 %	29.7 %	12.38 %	36.52 %
2	Foetal distress	19.64 %	30.99 %	12.1 %	32.38 %	11.82 %
3	Breech	9.45 %	-	11.3 %	2.38 %	7.52 %
4	PIH	7.18 %	12.99 %	4.8 %	2.85 %	3.54 %
6	APH	3.18 %	2.02 %	5.9 %	1.42 %	1.4 %

In the present study, the most common indication was previous caesarean section (35.88%). Similar results were found in studies conducted by G Singh et al², Chavda D et al³, Purashree Sarma et al⁴, Ratan Kumar Das et al⁵. G Singh et al² in his study, found that during 2007 to 2012, contribution of past caesarean section in total caesarean section increased and it was the most common indication. Chavda D et al³ studied 1000 cases in which 39.9 % cases were due to scarred uterus. Purashree Sarma et al⁴ find different result that foetal distress (30.99 %) was the most common indication and previous caesarean was second common indication of caesarian section.

Practice of trial for vaginal birth after caesarean (VBAC) is less in our hospital due to total number of deliveries and referral are more in our hospital, details of previous caesarean section not available. Trial was not given who refused for vaginal delivery or having previous 2 or more caesarean section or having previous indication like CPD.

The second common indication in the present study was fetal distress (19.38%).

Conclusion

Being a tertiary care hospital, a high rate of Caesarean deliveries was observed. Main indication of caesarean section was previous caesarean section and fetal distress. Evidence base study result should be used to counsel the patient regarding comparison of both mode of delivery that can reduce caesarean section rate. Indication of

caesarean section should be individualized and caesarean section should be offered after careful evaluation following standard guidelines and evidence based results.

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