

Study of primary caesarean section in light of indications

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Abstract

Introduction: This was prospective observational cross sectional study carried out at MGM MCH Aurangabad during period of August 2012 –July 2014 **Aim:** To study the indications of primary caesarean section. To study the maternal and foetal outcome in primary caesarean section. **Materials and Methods:** All the patients undergoing caesarean section for the first time were evaluated clinically. **Results:** A total of 4315 deliveries occurred, of which 1670 delivered by LSCS (38%) The commonest age group of patients being operated ranged from 20—30 years. Most of the patients (94%) who had undergone LSCS were primigravida. The sections were due to various indications. The commonest in this study was foetal distress, CPD, APH and mal presentations. The incidence of emergency operations was more than elective. Regarding foetal outcome 92% survived and 8% had perinatal death.

Keywords: Caesarean section, indications, foetal distress.

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INTRODUCTION

Caesarean delivery is defined as “Birth of a foetus through incision in abdominal wall and uterine wall after 28 weeks of pregnancy from intact uterus.” Caesarean section is one of the oldest and most widely used operation in obstetrics.

The increase in the incidence of LSCS in last three decades is mainly due to

- Safer anesthetic drugs and advanced anesthesia techniques.
- Better surgical techniques and protective umbrella of various broad spectrum antibiotics
- Increased use of Electronic Intrapartum Monitoring and improvement in NICU facilities Availability of blood and blood products.

Over the years, indications of caesarean sections in patients are changing and newer indications are being

added to it. Caesarean section is still a potentially hazardous operation as compared to vaginal delivery. Both the professional and the public are concerned about the alarmingly increased incidence of caesarean section all over the world. Scar over uterus changes the obstetric future of woman hence, it is necessary to use primary caesarean section judiciously.

MATERIALS AND METHODS

This is prospective observational cross sectional study carried out in MGM Medical College and Hospital, Aurangabad, Department of OBGY from August 2012–July 2014. Patients having previous history of Myomectomy or Hysterotomy were excluded. After taking consent, detailed history was taken from all the cases, general and abdominal examination was done from date of admission up to the day of discharge. CPD was tested mainly by clinical pelvimetry. Labour patient was monitored by abdominal and pelvic examination and electronic foetal monitoring. Hb%, blood grouping and Rh typing, urine R/E, obstetric USG was done in all patients and in selected cases kidney function test, liver function test and serum electrolyte was done. Indications of LSCS were detected antenatally and were compared with the findings at operation. Puerperal period up to the day of discharge was observed. Blood was kept ready in all cases and reserved in selected cases.

RESULTS

Table 1: Distribution of cases

Sr. No	Cases	Percentage
1	Primipara with vaginal delivery	19.5
3	Multipara with vaginal delivery	40.55
4	Primi and multi with LSCS	26.02
5	Repeat LSCS	12.7

The incidence of primary LSCS is 26.02%.

Table 2: Age distribution in primary Lscs (n-1123)

Age	percentage
<20	4.5%
20-30	94%
30-40	2.5%

The maximum number of patients was in age group 20-30 years

Table 3: Antenatal care received (n -1123)

	Booked	Unbooked
Primi	37.35%	62.65%
Multi	33.05%	33.05%

Most of primipara were unbooked

Table 4: Indications of Lscs

	PRIMI %	MULTI %
Foetal Distress	45.00	36.00
CPD	14.00	8.00
Malpresentation	9.50	14.70
APH	4.00	13.20
Failure of induction and Cervical dystocia	8.00	8.50
IUGR with severe oligohydraminos	9.00	9.30
Eclampsia and complications	3.00	2.90
Other	8.00	7.40

Foetal distress is most common indication in primigravida and multigravidas

Table 5: Post operative complications

Anaemia	64.73%
Breast complication	22.55%
Thrombophlebitis	22.43%
Subinvolution	15.13%
Wound Infection	23.86%
Urinary Complications	11.57%
Others	5.87%

Commonest complication was anaemia

Table 6: Perinatal Outcome (n-1148)

	Term	Preterm
With Mother	63%	6.44%
Nicu	18.11%	8.44%
Still Birth	0.07%	2.70%

DISCUSSION

Zaeneta Get (1999)¹ Italy studied caesarean section rates during period 1966—1970 They studied that, maintaining standard protocols for all major indications of caesarean

section, the rates decreased from 26,4% 12%.and so they concluded that irrespective of local situation, significant reduction of caesarean section rates can be achieved without detrimental effects on newborn. Minkoff etal² quoted that a teaching hospital always has a higher incidence of caesarean section. The rate is higher as these hospital s serve as a referral centre for patients in terminal phase

Distribution of Cases

The incidence of caesarean section rate in our institute is 38.67% similar to studies like Rohul Jabeen Shah³ study in tertiary centre. In present study, the incidence of primary caesarean section is 26.02% which is quite lower than a study by Prashant Bade⁴ where it was 41.09%. In present study, the incidence of VBAC is only 1.29% which suggests that primary LSCS affects the chances of vaginal birth in next pregnancy as stated by Sinead Mo'Neil⁵

Distribution of primary LSCS according to gravidity

In present study, primary caesarean section rate is greater in primigravida than multigravida 32.04%which is same as that of Klein et al study⁶ and Sen et al study⁷. Majority women were those who don't have previous vaginal delivery, similar to study of Barber EL⁸ having 50%. Read AW et al (1990, Australia)⁹ observed that unless caesarean section in primigravida fall, the caesarean section rate will continue to rise.

Distribution according to age

Maximum number of cases is seen in the age group of 20—30 years. Zaman N¹⁰, a study in IPGMR showed 89% amongst this age group. It is observed that as age increases, chances of primary caesarean section in primigravida and multigravida increases.

Antenatal care received

Inadequate antenatal care leads to increase rate of primary section (62.64%) in present study. There is an increased chance of eclampsia, APH, dysfunctional labour which is similar to Riffat Jaleel¹¹ In the Jacob¹² series 28%.patients had received antenatal care check up and in present study 35.97% had received antenatal care. This shows that even today 64.03%.patients had not received antenatal care due to self neglect or social problems

Indications of Primary Caesarean Sections

Foetal Distress

In present study it is the commonest indication in both groups, which is quite similar to study conducted by Bacbon E L¹² where it was 50% of total caesarean sections. The diagnosis of foetal distress increased 8-10 times in last two decades as observed by Patricia Shiono¹³ and Minkoff H L *et al*².

In present study foetal distress was diagnosed by three methods.

- Intermittent auscultatory method

- Electronic foetal monitoring
- Meconium stained liquor

An ideal obstetrician should not defer to do LSCS for foetal distress even in multigravida with living children, as stated by G. Palanchamy¹⁴. In recent five years, foetal distress is the top most indication for LSCS which was observed in a study of Mittal S¹⁵

CPD

Is more common indication in primi-group 14%. Willum (Mengert)¹⁶ says that there are five component of CPD—size and shape of pelvic, size of foetal head, uterine action, ability to undergo moulding, presentation and position.

Donald¹⁷ suggest two reasons for reduced pelvic capacity in multigravida.

1. Increasing inclination of pelvic brim –resulting from associated lordosis
2. Forward Subluxation of sacrum upon sacro-iliac joints, so that sacral promontory advances and the true conjugate is reduced

MAL-PRESENTATION

Breech is the common mal-presentation. There is danger to foetus in vaginal delivery and this is greater in primigravida than multigravida. Soni in 1931 was the first to suggest caesarean section for reduction of prenatal mortality in breech presentation. Incidence in present study is 8% and 11% in primigravida and multigravida respectively.

APH

In present study caesarean section due to APH is more commonly seen in multiparous woman i.e. (13.2%) and 4% in primigravida. An Abruptio placenta is more common cause of caesarean section in 10% cases. The first significant contribution was made by Bill in 1927 who advocated and emphasized the need for more liberal use of caesarean section and adequate blood supply in treatment of APH, Pedowitz Paul¹⁸

OTHER INDICATIONS

Pre-eclampsia, eclampsia, and complications contribute 7.4% cases of caesarean section. Newer and uncommon indications include patients demand, BOH, previous complete perineal tear, short inter-conceptual period (18 months) in case of previous LSCS.

POSTOPERATIVE COMPLICATIONS

- Anaemia is detected in 64.73% cases and managed by blood transfusions in 23% cases and oral or parental iron in rest of cases.
- Wound infection is second most common complication in present study (25%), in which 4% required resuturing.

Thrombophlebitis occurs post operatively due to venous irritation which was noted in 22.5%. In 15% of cases subinvolution was seen which was managed with oral

methergin. In 10.2% patient urinary problems were observed in the form of urinary tract infection and retention of urine. There is no evidence of Peritonitis in present study.

PERINATAL OUTCOME

It is convincingly evident that reduction in perinatal mortality is attributable directly to increased caesarean section rates and advanced neonatal care

In present study perinatal mortality is 8.4%. The maximum no. of admissions to NICU was due to foetal distress in term as well as preterm babies.

In present study there is no maternal mortality.

SUMMARY AND CONCLUSIONS

1123 cases of primary caesarian section were studied in two years. These cases were analyzed in relation to age, gravidity, gestational age and antenatal care if taken.

The results are

- The incidence of caesarian section in MGM Hospital. Aurangabad is 38.72%
- The incidence of primary section is 26.02%
- Maximum patients were in age group of 22-25 years (94%)
- Foetal distress (45%), CPD (14%), severe oligohydroaminios (8.5%) are common indications in primigravida while foetal distress (36%), APH (13.2%) and mal-presentations (11%) are common indications for primary sections in multigravida.
- Atonic PPH, anaemia and wound infections are common intra and post operative complications
- Perinatal mortality 8.4% with no maternal mortality.

CONCLUSIONS

1. Regular antenatal check up should be done during pregnancy.
2. Proper education of birth attendant or detection of high risk cases and timely referral for proper management.
3. Accurate and early decision is to be taken in performing LSCS to ensure healthy outcome.
4. Audit of all LSCS should be done whether the indications are justified or not.

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