

ORIGINAL RESEARCH

Incidence Primary LSCS in Multigravida – A Prospective Study

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ABSTRACT

Background: Caesarean section is one of the most commonly performed and lifesaving surgery in the world for the child, mother or the both. WHO recommends that the caesarean sections rate should not be higher than 15-20%. It is common belief in many that if a woman delivers her child vaginally all her successive deliveries will be normal, resulting in the neglecting of routine antenatal check-up of a multiparous woman. So, it is important to know the incidence and indications of caesarean section in multi gravida women to decrease section rate in multi parous women.

Materials and Methods: This is a prospective study, the present study is carried out at hospitals attached to JJM Medical College & Hospitals, Davanagere. 1) CG Hospital, 2) WCH Hospital & 3) Bapuji Hospital. Study conducted between January 2019 to June 2019. Study was done on parous women who had previous vaginal deliveries.

Results: Among 7482 deliveries happened in study period, 2935 delivered by LSCS, in that 235 cases were primary section in multi parous women which is 7.32% of total LSCS. Most of the patients 111 (47.8%) belong to age group 25-29yrs, most common incidence for caesarean section in present study was fetal distress 114 (49.1%).

Conclusion: Many unforeseen complications like cephalopelvic disproportion, prolonged labour, obstructed labour, malpresentations can occur in parous women who had previous vaginal delivery, that may require emergency caesarean section. Careful assessment of them during antenatal and intra natal period can improve maternal and perinatal outcome. It is recommended that all antenatal patients must be booked and receive proper and regular antenatal care. Also 100% deliveries in multigravida should be institutional deliveries in order to reduce maternal and perinatal morbidity and mortality.

Keywords: ?.

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INTRODUCTION

Caesarean section is one of the most commonly performed major surgical procedure worldwide, with an estimated 18.5 million cases performed annually. The frequency with which it is carried out continues to rise and has in many hospitals and health regions, reached rates in excess of 30%. A variety of reasons have improved the safety of caesarean section and increased the indications for its performance over the years like better anaesthetic techniques, better antibiotics, availability of blood transfusion, thromboprophylaxis, unwillingness to accept even small increased risks associated with certain types of operative vaginal delivery and social and medico legal expectation of a perfect neonatal outcome which has undoubtedly influenced obstetric care This is not to imply that they have become safer than normal uncomplicated vaginal deliveries but have become safer than they used to be. A

Multipara is the one who had one or more previous viable births. Multipara are considered to be at increased risk for Anaemia, malpresentations, Haemorrhage, cephalopelvic disproportions, uterine rupture and complications associated with chronic medical disorders like Hypertension and Diabetes. A false sense of security prevails in multiparous women who have had previous uneventful vaginal deliveries, as a result, such multiparous mothers often neglect routine antenatal check-up, and some of them may land up in caesarean section owing to the associated risk factors. Multipara may still have cephalopelvic disproportion even having previously delivered a full-term child vaginally. Since the foetus increases in size with multiparity, the size of foetus and foetal head should be carefully estimated. In multiparous patients, malpresentations are favoured by a pendulous abdomen and lordosis of the lumbar spine and in any case, that is usual for the head not to engage in the pelvis until the onset of labour. Multiparity is a problem associated with poverty, illiteracy, ignorance and lack of knowledge of the available antenatal care and family planning methods. Defensive obstetrics is another common cause for high rate of caesarean section. It has been observed that 82% of physicians performed caesarean to avoid negligence claims. Vaginal delivery takes around 12 hours against 30 minutes to perform caesarean section thus heavily taxing upon obstetrician time and patience. A multipara who has earlier delivered vaginally may still require a caesarean section for safe delivery. Incidence, Present study has been done to study the indications of primary caesarean section in multigravida and evaluate the reason for LSCS in multiparous women.

MATERIALS & METHODS

It was a prospective study of all the cases of primary caesarean section in multigravida admitted at three hospitals JJM Medical College & Hospitals, Davanagere.

- 1) CG Hospital
- 2) WCH Hospital
- 3) Bapuji Hospital

Study conducted between January 2019 to June 2019. Study was done on parous women who had previous vaginal deliveries.

Inclusion criteria

All multigravida with pregnancy of >28 weeks gestations (Gravida 2 and above) each of whom had a previous vaginal delivery of >28 weeks of gestation.

Exclusion criteria

Women with previous abortions and previous sections and pregnancy with medical disorders were excluded.

Information was collected in a predesigned proforma about demographic profile, obstetric history, physical examination, indication of caesarean section, maternal and perinatal outcome. Statistical analysis the chi-squared test was used for comparative analysis of categorical variables in order to determine independent risk factors. Statistical significance was defined as $P < 0.05$. SPSS 17.0 software (SPSS, Chicago, IL, USA) was used.

RESULTS

A prospective study of primary caesarean section in multigravida admitted at above mentioned hospitals during a period of 6 months from January 2019 to June 2019. Among total 7482 deliveries, 2935(28.175) underwent LSCS in that 232 (3.007%) were primary LSCS in multi gravida.

Table 1:?

Total no. of deliveries	7482	
Total no. of LSCS	2935	28.175%
Total no. of LSCS in multipara	232	3.007%

Out of 232 cases most of them were unbooked cases 168 (72.8%), many of them were first visit to hospital without any prior antenatal check-ups.

Table 2: Booked v/s unbooked cases

Analysis	No. of cases	Percentage
Booked cases	64	27.6
Unbooked cases	168	72.4

In 232 cases, 221(95.25%) cases were emergency LSCS only 11 cases were operated electively.

Table 3: Emergency v/s elective LSCS

Type of operation	Total no. of cases	Percentage
Emergency LSCS	221	95.25%
Elective LSCS	11	4.74%

Most of the patients 111(47.8 %) belong to the age group of 25-29 years followed by 55 (23.7 %) in age 20-24years, 38(16.37 %) patients in age group of 30-34years. 25 patients (10.77%) were in age group 35-39years, only one patient was above 40 years of age.

Table 4: Age group distribution

Age group in years	No. of cases	Percentage %
<20	2	0.86
20-24	55	23.7
25-29	111	47.8
30-34	38	16.37
35-39	25	10.77
>40	1	0.43

Most of cases 149(64.22) were gravida 2, and 69 (29.74) were gravida 3, and only 5 (1.72%) were grand multi para i.e. they had previous 4 viable birth.

Table 5: Gravidity distribution

Multi gravida	No. of cases	Percentage %
G2	149	64.22
G3	69	29.74
G4	10	4.3
G5	4	1.72

Most common indication for caesarean section in present study was fetal distress 114 (49.13%), followed by malpresentation in 49 (15.52%) patients, most common was breech presentation in 16 patients and least is oblique lie in 1 patient. failure to progress due to minor degree CPD were in 26 (11.2%) patients, placenta previa in 24(10.3 %) and abruptio placenta

in 8(3.4%), failed induction in 6 (2.5%) patients, antepartum Eclampsia with unfavourable cervix in 5 (2.1%), in twin pregnancy LSCS was done in 6 cases for various indications, cord presentation in 6 (2.5%) and Cord prolapse in 2(0.86%) patients.

Table 6: Indication for LSCS in multi gravida

Indication	No. of cases	Percentage %
Fetal distress	114	49.13
Malpresentation	36	15.52
Breech	18	
Transvers lie	6	
Brow presentation	5	
Mento posterior position	4	
Compound presentation	2	
Oblique lie	1	
Failure to progress due to minor degree CPD	26	11.2
Placenta previa	24	10.3
Abruptio placenta	8	3.4
Failed induction	6	2.5
Cord presentation	6	2.5
Antepartum eclampsia with un favourable cervix	5	2.1
Twin presentation	5	2.1
Cord prolapse	2	0.86

DISCUSSION

A prospective study was done in Department of Obstetrics and Gynaecology at JJM medical college Davanagere, Karnataka. During the period of 6 month from January 2019 to June 2019. A total of 232 subjects of Primary Caesarean section on multigravida were selected for the study with inclusion and exclusion criteria. A multipara who has earlier delivered vaginally may still require a caesarean section for safe delivery.

Total number of deliveries during the study period of 6 months was 7482 and the total number of caesarean section was 2935 with a caesarean section rate of 28.17% it was less when compared to other studies. Himabindu P et al found a caesarean section rate of 40% in her study. And in study by Rajput N et al it was 37.39, the high caesarean section rate in our institution was because is a tertiary referral centre having a wide catchment area. Out of 2935 caesarean section 232 (3.007) were in multigravida.

Among 232 study subjects 168 patients (72.4%) were unbooked. This fact reveals poor level of antenatal booking of the patients in India particularly in rural area, this may be because of low level of female literacy and lack of public awareness regarding the need for antenatal check-up. Our results are comparable with the study done by Desai E et al (72.09%), Himabindu P et al (71%), Rajput N et al (77.72%), and Sharmila G et al (68%).

Out of 232 patients, most of the patients (47.8 %) belong to age group of 25-29 years followed by 23.8 % to the age group 20-24years. This is because in India legal age of marriage for the girls is 18 years. Rajput N et al reported in his study maximum number of women undergoing LSCS were from age group of 25 to 30 years (55.95%), Sethi P et al also

reported in his study that maximum number of women undergoing primary caesarean section were from the age group of 25-29 years (41%), Unnikrishnan B et al and Sree Sailaja P et al also reported the similar results.

Distribution of patients according to parity shows that most of the patients (64.22%) were Gravida-2 followed by Gravida-3(29.74%). It reflects that in the last few years' family size has been shifted from 5-6 children per couple to 2-3 children per couple. Grand multiparity has been significantly reduced in the past few years. Rajput N et al Gravida-2 (49.73%) 32.12% of Gravida-3, Sethi P et al also reported the similar results 35% Gravida-2, 30% of Gravida-3 parity status, Sree Sailaja P et al also reported the similar results.

Most of the patients 95.25% underwent Emergency caesarean section and only 11(4.74%) had elective caesarean section. Rajput N et al shows similar results 95.85% were emergency LSCS and only 4.15% had elective LSCS, Study done by Sethi P et al in 100 patients showed almost similar results showing 91% emergency operative and only 9% were electively operated, Sree Sailaja P et al also reported the similar results.

In present study most, common indication for caesarean section was Fetal distress 114 (49.13%) The presence of foetal distress was identified by the presence of meconium-stained liquor and pathological foetal heart rate tracings. Malpresentations 36 (15.52 %), most common malpresentation is breech in 18 patients, APH in 32 (13.76 %), Cephalopelvic disproportion in 26 (11.2%), Twin pregnancy in 5 (2.1%) Eclampsia in 5 (2.1%), cord presentation in 6 (2.5%), failed induction in 6 (2.5%) and cord prolapse in 2 (0.86%). Desai E et al also reported fetal distress (25.58%), APH (22.09%), CPD (19.77%) and abnormal presentations (17.44%) as the most common indications for caesarean sections in his study. Himabindu P et al also reported fetal distress (24.7%) as the most common indication for Caesarean section in his study he also showed that most common abnormal presentation was breech for which caesarean section was done, in Sree Sailaja P et al most common indication was fetal distress (29.5%) and second most common was mal presentation (16%), Duckman et al states that cephalopelvic disproportion in a multipara can be more significant and more dangerous than in primi because of the delay in recognition. Klein states that multipara in early labour with unengaged foetal head should receive the same investigation for cephalopelvic disproportion that a primigravida would receive. Reluctance to diagnose this cephalopelvic disproportion leads to a longer labour, with development of excessive moulding and caput formation. In Rajput N et al common indication for caesarean section was Malpresentations 115 (29.79%) followed by Fetal distress in 71 (18.39%), APH in 71 (18.39%), Severe Preeclampsia and Eclampsia in 39 (10.1%), Obstructed labour and Cephalopelvic disproportion in 33 (8.55%) each, Twin pregnancy in 21 (5.44%). Rao JH et al also reported Abnormal presentations (32.5%), APH (19.5%), Fetal distress (17%), obstructed labour (18.5%) in her study.

CONCLUSION

Multiparous women who had previous vaginal deliveries may still require a caesarean section for safe outcome of mother and foetus. Though vaginal delivery is always safer than caesarean section, difficult vaginal delivery and obstructed labour carries more morbidity and perinatal mortality when compared to elective caesarean section, Previous vaginal delivery gives the patient as well as her relatives a false sense of security. In many cases, a caesarean becomes mandatory. The fact that a multipara has had one or more vaginal deliveries should be regarded as an optimistic historical fact, not as a diagnostic criteria for spontaneous delivery of the pregnancy at hand. The present study gives the incidence, indications of

primary caesarean section in multigravida women. The most common indications were foetal distress followed by cephalopelvic disproportion and malpresentation. Increasing parity is associated with high incidence of complications in ante partum, intra partum and postpartum periods. Antenatal booking and regular antenatal check-ups help to identify high risk women with medical and obstetric complications, so that timely intervention can reduce maternal and foetal, morbidity and mortality due to prolonged labour, obstructed labour, emergency caesarean and septicaemia. Hence all multigravida women need to be informed about the importance of antenatal care and mandatory hospital delivery to improve maternal and foetal outcome. Moreover, awareness regarding family planning practices should be developed in the society to avoid disastrous effects of high parity.

Our national targets are to reduce Maternal mortality rate below 100/ live births and Neonatal mortality rate below 29/1000 live births. This can be achieved by female literacy rate by >80% and 100% good quality antenatal care and 100% institutional deliveries.

REFERENCES

1. Rajput N, Singh P, Verma YS. Study of primary caesarean section in multigravida patients. *Int J Reprod Contracept Obstet Gynecol* 2018;7:185-91.
2. Desai E, Leuva H, Leuva B, Kanani M. A study of primary caesarean section in multipara. *Int J Reprod Contracept Obstet Gynecol* 2013;2:320-4.
3. Sree Sailaja P, Kavitha G. Study of primary caesarean section in multigravida. *J. Evid. Based Med. Healthc.* 2019; 6(45), 2900-2903. DOI: 10.18410/jebmh/2019/604
4. Sethi P, Vijaylaxmi S, Shailaja G, Bodhare T, Devi S. A study of primary caesarean section in multigravidae. *Perspect Med Res.* 2014;2:3-7.
5. Rao JH, Rampure N. Study of primary caesarean section in multiparous women. *J Evol Med Dental Sci.* 2013;2(24):4-7.
6. Registrar General, India, 2009 and Office of Registrar General, India, 2011.
7. Suwanrath-Kengpol C, Pinjaroen S, Krisanapan O, Petmanee P. Effect of a clinical practice guideline on physician compliance. *Int J Quality Health.* 2004;16:327-332.
8. Omar AAA, Anza SA. Frequency Rate and Indications of Caesarean Sections at Prince Zaid Bin Al Hussein Hospital-Jordan. *JRMS.* 2012;19(1):82-6.
9. Solomon B. The dangerous multipara. *Lancet* 1932;2:8-11.
10. Basak S, Lahri D. Dystocia in eutocic multigravida. *J Obstet Gynecol India.* 1975;25:502-7.
11. Jacob S, Bhargava H. Primary caesarean section in multipara. *J Obstet Gynaecol India.* 1972;22(6):642-50.
12. Marfatlal SJ, Narendrabhi MM. Analysis of mode of delivery in women with previous one caesarean section, *J Obstet Gynecol India.* 2009;59(2):136-9.
13. Hickl EJ. The safety of caesarean section. In: Popkin DR and Peddle LJ, Eds. *Women's Health Today.* London: Parthenon Publishers. 1994:65-70.
14. Vijaykrishnan M, Bhaskar Rao K. Caesarean deliveries – Changing Trends. In: Arulkumaran S, Ratnam SS, Bhasker Rao K (Editors). *The Management of Labour*, 2nd Ed, Hyderabad, Orient Longman;2005:351-63.
15. WHO: *Monitoring Emergency Obstetric Care: A Handbook.* Geneva, Switzerland: World Health Organization 2009.
16. Himabindu P, Sundari MT, Sireesha KV, Sairam MV. Primary caesarian section in multipara. *IOSR-JDMS.* 2015;14(5):22-5.
17. Unnikrishnan B, Rakshith P, Aishwarya A, Nithin K, Rekha T, Prasanna P et al. Trends and Indications for Caesarean Section in a tertiary care Obstetric Hospital in Coastal South India. *AMJ.* 2010;3(12):821-5.

18. Rowaily MA, Fahad A, Alsalem, Mostafa A Abolfotouh. Caesarean section in a high-parity community in Saudi Arabia: clinical indications and obstetric outcomes. *BMC Pregnancy Childbirth*. 2014;14(92):1-10.