

A Prospective Study of Primary Caesarian Section in Multigravida Patients in a Tertiary Care Hospital

Dr.Sudeepa Chaparala MBBS^{1*}, Dr.J.Karthiki MD DGO², Dr.Lavanya³

^{1*}Post Graduate, Department of Obstetrics and Gynecology, Santhiram Medical College and General Hospital, Nandyal, AP.

²Professor and HOD Department of Obstetrics and Gynecology, Santhiram Medical College and General Hospital, Nandyal, AP.

³Post Graduate, Department of Obstetrics and Gynecology, Santhiram Medical College and General Hospital, Nandyal, AP.

Corresponding Author: Dr.Sudeepa Chaparala

Abstract

Introduction: Caesarean delivery defines as the birth of a fetus via laparotomy (abdominal wall) and then hysterotomy (uterine wall). There are two types of caesarean delivery primary refers to a first time hysterotomy and secondary denotes a uterus with one or more prior hysterotomy incision. Caesarean section is one of the most commonly performed surgical procedures in the world and can be life-saving for the child, the mother, or both, in certain cases. Multipara means those who had delivered once or more after the age of viability.

Materials and Methods: It was a prospective study of primary caesarean section in multigravida admitted at Santhiram Medical College and General Hospital, Nandyal during the period of 1 year from January 2018 to December 2018. Multigravida with pregnancy of >28 weeks gestation (gravida 2 and above), each of whom has had a previous vaginal delivery of > 20 weeks gestation were included. Women with previous abortions and previous section and Pregnancy with medical disorders were excluded.

Results: A prospective study of primary caesarean section in multigravida admitted at Santhiram Medical College and General Hospital during a period of 1 year from January 2018 to December 2018 and a total of 450 patients were selected for study and following observations were made. Total number of deliveries during the study period of 1 year was 845. Caesarean section was done in 450 (53.25%) patients.

Conclusion: Prior vaginal delivery gives a false sense of security. Parous women who have had successful previous vaginal delivery may need section in future pregnancy for improved maternal and fetal salvage. Routine antenatal care with proper monitoring for complications both during antenatal and intra partum improves chance for improved maternal and perinatal outcome with low caesarean rates.

Key Words: Multigravida, Maternal outcome, Neonatal outcome, Primary caesarean section

Date of Submission: 13-02-2019

Date of acceptance:28-02-2019

I. Introduction

Caesarean delivery defines as the birth of a fetus via laparotomy (abdominal wall) and then hysterotomy (uterine wall). There are two types of caesarean delivery primary refers to a first time hysterotomy and secondary denotes a uterus with one or more prior hysterotomy incision. Caesarean section is one of the most commonly performed surgical procedures in the world and can be life-saving for the child, the mother, or both, in certain cases. Multipara means those who had delivered once or more after the age of viability. It includes primi-para (uniparapara1) multipara (para 2,3,4) and grand multipara (para more than 4). Primary caesarean section in the multipara means first caesarean section done in the patients who had delivered vaginally once or more⁵. The reasons for primary caesarean section are increase in size of fetus and fetal head which causes cephalopelvic disproportion & placental location¹. The present study evaluates the proportion of primary caesarean sections occurring in multigravida in a tertiary care hospital and their indications.

There are many factors that contribute to the variations in caesarean section rates, such as practice culture, practice style, hospital environment, and source of payment, patient's preference, and socioeconomic status. A clinical practice guideline can reduce the caesarean section rates without increasing adverse outcomes (Suwanrath-Kengpol C 2004).⁵ High or rising rates of caesarean delivery do not necessarily reflect demand for surgical delivery.⁶

Multipara means those who had delivered once or more after the age of viability. It includes primi-para (unipara-para 1) multipara (para 2, 3, 4) and grand multipara (para more than 4).⁷ Primary caesarean section in

the multipara means first caesarean section done in the patients who had delivered vaginally once or more. Mainly the baby and the placenta are responsible for caesarean section in multipara.

II. Materials And Methods

It was a prospective study of all the cases of primary caesarean section in multigravida admitted at Santhiram Medical College and General Hospital, Nandyal during a period of 1 year from January 2018 to December 2018.

Study was done in parous women who had previous vaginal deliveries. Inclusion Criteria was all Multigravida with pregnancy of >28 weeks gestation (gravida 2 and above), each of whom has had a previous vaginal delivery of > 20 weeks gestation.

Women with previous abortions and previous section and Pregnancy with medical disorders were excluded from the study.

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.

III. Results

A prospective study of primary caesarean section in multigravida admitted at Santhiram Medical College and General Hospital during a period of 1 year from January 2018 to December 2018 and a total of 450 patients were selected for study and following observations were made. Total number of deliveries during the study period of 1 year was 845. Caesarean section was done in 450 (53.25%) patients.

S.No	Indication	No of patients	Percentage
1	Malpresentations	115	68.75
2	Breech	45	28.125
3	Face	4	2.5
4	Brow	3	1.875
5	Compound Presentation	3	1.875
6	Cord presentation	3	1.875
7	Transverse lie	30	18.75
8	Oblique Lie	1	0.625
9	Cephalopelvic Disproportion	32	20
10	Antepartum Hemorrhage	39	24.375
11	Placenta Previa	37	23.125
12	Abruptio placentae	5	3.125
13	Fetal Distress	54	33.75
14	Obstructed labour	33	20.625
15	Severe preeclampsia and anterartum eclampsia	25	15.625
16	Twin pregnancy	21	13.125
17	Total	450	100.0

Table 1: Indications of primary caesarean section in multigravida.

Most common indication for caesarean section in present study was Malpresentation 110(68.25%), followed by Fetal distress in 54 (33.75%) patients, Cephalopelvic Disproportion in 32 (20%), Transverse lie in 39 (18.75%), Obstructed labour in 33 (20.625%) patients and Cephalopelvic disproportion each and Twin pregnancy in 21 (13.125%).

S.No	Maternal Outcome	No of patients	Percentage
1	Healthy	257	57.11
2	Postoperative Morbidity	84	18.66
3	Abdominal Distention	7	1.55
4	Pyrexia	45	10
5	URTI	38	8.44
6	Wound infection	15	3.33
7	PPH	4	0.88
8	Total	450	100

Table 2: Maternal Outcome

Most of patients 300 (77.72%) did not require blood transfusion and only 86 (22.28%) patients received blood transfusion. Analysis of maternal outcome shows that out of 450 patients, 91 (23.57%) patients had different complications. Most common maternal complication was pyrexia in 45 (10%) patients, followed by Upper respiratory tract infection in 38 (8.44%) patients, wound infection in 15 (3.33%) patients and abdominal distention in 7 (1.55%) patients.

S.No	Neonatal Outcome	No of patients	Percentage
1	Healthy Neonates	280	62.22
2	Neonatal Morbidity	87	19.33
3	Birth Asphyxia	7	1.55
4	Sepsis and Pyrexia	30	6.66
5	MAS	29	6.44
6	RDS	14	47.33
7	CHD	3	0.66

Table 3: Neonatal Outcome

The most common morbidity present in neonates was birth asphyxia in 7 (1.55%) neonates followed by RDS in 13 (47.33%) neonates, sepsis and pyrexia in 30 (6.66%) and MAS in 29 (6.44%) of neonates.

IV. Discussion

A prospective study was done in Department of Obstetrics and Gynecology at Santhiram Medical College and General Hospital during the period of 1 year from January 2018 to December 2018. A total of 450 subjects of Primary Caesarian section on multigravida were selected for the study with inclusion and exclusion criteria's. A multipara who has earlier delivered vaginally may still require a caesarian section for safe delivery.⁸

Total number of deliveries during the study period of 1 year was 845 and the total number of caesarian section was 450 with a caesarian section rate of 53.25%. Himabindu P et al found a comparable caesarian section rate of 40% in her study. Out of 3061 caesarian section 1077 (35.18%) were done in primigravida and 386 (12.61%) in multigravida. Repeat caesarian section was done in 1598 (52.20%) patients.⁹

Among 386 study subjects 300 patients (77.72%) were unbooked. This fact reveals poor level of antenatal booking of the patients in India particularly in M.P. This may be because of low level of female literacy and lack of public awareness regarding the need for antenatal checkup. Our results are comparable with the study done by Desai E et al (72.09%) and Himabindu P et al (71%).¹⁰

A total of 236 patients (61.13%) were direct admission in the hospital and only 150 (38.86%) patients were referred from different places. Most of the cases were direct admission and came to hospital only when some complications occurred. Almost similar results were reported by Desai E et al, who found that the cases which were received directly rather than referred were more in numbers (48.84%).¹¹

Out of 450 patients, most of the patients (55.95%) belong to age group of 26-30 years followed by 31.86% to the age group 21-25 years. This is because in India legal age of marriage for the girls is 18 years. Sethi P et al also reported in his study that maximum number of women undergoing primary caesarian section were from the age group of 25-29 years (41%).² Unnikrishnan B et al also reported the similar results.¹²

Distribution of patients according to parity shows that most of the patients (49.73%) were Gravida-2 followed by Gravida-3 (32.12%). 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. Sethi P et al also reported the similar results 35% Gravida-2, 30% of Gravida-3 parity status.²

Most of the patients (59.33%) belong to gestational period of 37-40 weeks followed by (28.76%) period of 32-36 weeks. Rowaily MA et al reported in his study on primary cesarean section in multigravida found that most the patients (78.8%) belong to gestational age of 37-42 weeks followed by 18.2% patients in gestational age of <37 weeks, the results are comparable to present study.¹³

Distribution of patients according to education status showed that most of them were having primary education (46.37%) and 30.56% patients were illiterate. Study done by Ajeet S et al shows better education status in his study.¹⁴

V. Conclusion

Prior vaginal delivery gives a false sense of security. Parous women who have had successful previous vaginal delivery may need section in future pregnancy for improved maternal and fetal salvage. Routine antenatal care with proper monitoring for complications both during antenatal and intra partum improves chance for improved maternal and perinatal outcome with low caesarian rates.

References

- [1]. Rao JH, Rampure N. Study of primary caesarean section in multiparous women. *J Evol Med Dental Sci.* 2013;2(24):4-7.
- [2]. Registrar General, India, 2009 and Office of Registrar General, India, 2011.
- [3]. 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.
- [4]. 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.
- [5]. Solomon B. The dangerous multipara. *Lancet* 1932;2:8-11.
- [6]. Basak S, Lahri D. Dystocia in eutocic multigravida. *J Obstet Gynecol India.* 1975;25:502-7.
- [7]. Jacob S, Bhargava H. Primary caesarean section in multipara. *J Obstet Gynaecol India.* 1972;22(6):642-50.
- [8]. 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.
- [9]. Hickl EJ. The safety of caesarean section. In: Popkin DR and Peddle LJ, Eds. *Women's Health Today.* London: Parthenon Publishers. 1994:65-70.
- [10]. 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.
- [11]. WHO: *Monitoring Emergency Obstetric Care: A Handbook.* Geneva, Switzerland: World Health Organization 2009.
- [12]. Himabindu P, Sundari MT, Sireesha KV, Sairam MV. Primary caesarian section in multipara. *IOSR-JDMS.* 2015;14(5):22-5.

Dr.Sudeepa Chaparala. "A Prospective Study of Primary Caesarian Section in Multigravida Patients in a Tertiary Care Hospital." *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, vol. 18, no. 2, 2019, pp 29-32.