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To study indications for primary caesarean section in primigravida and multigravida

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Abstract
Background: Worldwide caesarean section is the most performed surgical procedures in obstetrics. It has been a lifesaving procedure for foetus and mother during the complicated delivery.
Aims and objectives: To analyze the incidence and indications for primary C-Section in primigravida and multigravida.
Methods: This observational study was conducted over a period of one year in department of obst. & gynaecology, S.P. Medical College, Bikaner. Data was recorded and incidence of primary caesarean section was calculated. Two groups were formed consisting of primigravida and multigravida who underwent primary caesarean section taking 150 patients each and indications of lscs was noted. Women who underwent caesarean section for the first time were included with gestational age (>28 weeks). Exclusion criteria was women with previous caesarean sections, known medical disorders except anemia with gestational age<28 weeks.
Results: Out of 6572 primigravidas delivered, 2110 (32.1%) delivered by primary LSCS. Amongst 9814 multigravida patients, 1234(12.6%) were primary LSCS. 10% LSCS were elective in group A as compared to group B where only 7.3% were elective. In group A, most common elective indication was primi breech (40%), while in group B, it was placenta praevia (45.4%). In group A, most common emergency indication was fetal distress (53.3%) followed by primi breech with good size baby (20.7%). In group B, fetal distress was in 30.2% cases but most common indication of LSCS was APH (35.9%).
Conclusions: High rate of Caesarean deliveries was observed in primigravidas but not in multigravidas. Though better technology improves outcome but may cause over diagnosis in many cases thereby increasing caesarean section rates.

Keywords: primary Caesarean section; incidence of LSCS; Indications of LSCS

Introduction
Caesarean section is one of the most widely performed surgical procedures in obstetrics worldwide. It was mainly evolved as a lifesaving procedure for mother and foetus during the difficult delivery [1]. There is progressive increase in caesarean deliveries across the world. The indications of caesarean sections vary among institutions as there is no standard classification system exists for indications of C-Section [2, 3].
In order to understand the degree to which caesarean deliveries may be preventable, it is important to know why caesareans are performed. This study aims to find the rate of caesarean deliveries, various indications of the primary procedure. It may help us to reduce the incidence rate in future.

Aims and objectives
- To know the incidence of primary caesarean section in primigravida and multigravida.
- To compare various indications for primary caesarean section in primigravida and multigravida.

Material and Methods
It is a hospital based prospective observational study done from August 2016 to July 2017 in the Dept. of Gynae & Obst., S.P. Medical College and P.B.M Hospital, Bikaner. 150 primigravidas and 150 multigravidas who had primary caesarean delivery were taken as subjects with Gestational age (>28 weeks). Exclusion Criteria was Women with previous caesarean sections, Known medical disorders except anemia with Gestational age<28 weeks. For data analysis

Microsoft excel and statistical software SPSS was used and data was analyzed with the help of frequencies, figures, proportions, measures of central tendency and appropriate statistical tests.

Results

During the study period, total 16386 patients delivered and out of them 4456 (27.1%) delivered by LSCS. Total primary LSCS were 3344 (20.4%), total repeat LSCS were 1112 (6.78%).

Total 6572 primigravida patients delivered, out of it 4462 (67.9%) delivered normally and 2110 (32.1%) delivered by primary LSCS. Total 9814 multigravida patients delivered and out of which 7468 (76.1%) delivered normally and 1234(12.6%) were primary LSCS. (Table-1)

Three hundred pregnant women selected for study and divided into 2 groups randomly i.e, Group A (Primi gravida) and Group B (Multigravida), contents of 150 cases each group.

Most common age group in group A was 21-25 years (52%) while in group B, most common age group was 26-30 years (45.3%). 1.3% cases were found between the age group of 31-35 years in group A and only 1(0.7%) case presented above the age of 35 years while in group B 15.3% cases were present between 31-35 years of age and 4.7% cases were found after the age of 35 years and this difference was found statistically highly significant (p<0.001).

Majority of patients came from rural area in both groups (56% in group A and 62% in group B).

In Group A majority of cases belonged to booked category (71.3%) whereas in group B only 22% were booked so this difference was statistically highly significant (p<0.001).

Most of the patients had cephalic presentation in both the groups (72.7% in group A and 86.7% in group B). 27.3% of the women in group A had breech presentation while 2% in group B. Transverse lie and compound presentation was observed in 8.66% and 2.66% of the women in group B respectively while it was nil in group A. (Table-2)

On further subdivision of multigravidas, cephalic/breech presentation were common in G2 and transverse and compound in G3 and more. (Table-3)

In group A, 15(10%) LSCS were elective as compared to group B where only 11(7.3%) were elective and this difference was found statistically insignificant (p>0.05). (Table-4)

Indications of LSCS were different in both groups. In group A, most common elective indication was primi breech (40%), while in group B, it was placenta praevia (45.4%). (Table-5)

In group A, most common emergency indication was fetal distress (53.3%) followed by primi breech with good size baby (20.7%). In group B, although fetal distress was there in 30.2% cases but most common indication of LSCS was APH (35.9%). Beside this other indication like mal-presentation, mal position, obstructed labour, impending rupture and cord prolapse were seen with higher incidence in group B as compared to group A. (Table-6).

Table 1: Incidence of primary LSCS in primi and multi gravida

Gravida	Total No. of Delivery		Normal Delivery		Primary LSCS		Repeat LSCS	
	No.	%	No.	%	No.	%	No	%
Primi	6572	100	4462	67.9	2110	32.1	0	-
Multi	9814	100	7468	76.1	1234	12.6	1112	11.3

Table 2: Distribution of cases according to presentation

Presentation	Gravida			
	Group A		Group B	
	No.	%	No.	%
Cephalic	109	72.7	130	86.7
Breech	41	27.3	3	2.0
Transverse	0	-	13	8.7
Compound	0	-	4	2.6
Total	150	100	150	100
χ^2	0.2775			
P	>0.05			

Table 3: Distribution of cases according to presentation in group B (In relation to parity)

Presentation	Gravida					
	G 2		G 3		≥G4	
	No.	%	No.	%	No.	%
Cephalic	29	87.87	63	91.30	38	79.16
Breech	2	6.06	1	1.44	0	-
Transverse	2	6.06	4	5.79	7	14.58
Compound	0	-	1	1.44	3	6.25
Total	33	100	69	100	48	100

Table 4: Distribution of cases according to emergency/elective LSCS

Elective/Emergency	Gravida			
	Group A		Group B	
	No.	%	No.	%
Elective	15	10.0	11	7.3
Emergency	135	90.0	139	92.7
Total	150	100	150	100
χ^2	0.6738			
P	>0.05			

Table 5: Distribution of cases according to elective indication of LSCS

Indication	Gravida				Total	
	Group A		Group B			
	No.	%	No.	%	No.	%
Placenta Praevia	4	26.7	5	45.4	9	34.6
Transverse Lie	0	-	3	27.3	4	15.4
CPD	1	6.7	1	9.1	2	7.7
Precious Pregnancy	2	13.3	0	-	2	7.7
IUGR with Oligo	2	13.3	2	18.2	4	15.4
Primi Breech	6	40.0	0	0	5	19.2
Total	15	100	11	100	26	100

Table 6: Distribution of cases according to emergency indication of LSCS

Indications	Gravida				Total	
	Group A		Group B			
	No.	%	No.	%	No.	%
Fetal Distress	72	53.3	42	30.2	114	41.6
Abruption	5	3.7	17	12.2	22	8.0
Placenta Previa with Bout	4	3.0	33	23.7	37	13.4
Impending Rupture	0	-	6	4.3	6	2.2
Obstructed Labour	2	1.5	9	6.5	11	4.0
Compound Presentation	0	-	4	2.8	4	1.5
Cord Prolapse	0	-	3	2.2	3	1.1
Transverse Lie	0	-	10	7.2	10	3.7
Brow Presentation	0	-	3	2.2	3	1.1
PROM with NPOL with Breech	7	5.2	3	2.2	10	3.7
PROM with NPOL	17	9.6	9	6.5	26	9.5
Primi Breech with Good Size Baby	28	20.7	0	0	28	10.2
Total	135	100	139	100	274	100

Discussion

With modern technology we are able to save mother and foetus in time but that advantage comes with increase in rate of caesarean sections. In this study we have discussed the primary casarean rate and indications for the same in primigravida as well as multigravida. Mother with previous history of eutocia and normal uneventful delivery, may exhibit dystocia and other abnormalities leading to impending bad feto maternal outcome, and primary caesarean section in multies at times.

In our study incidence of primary LSCS in primigravida was 32.1% and in multigravida 12.6%. This incidence was comparable with study conducted by Rajput *et al*. [4] where incidence of primary caesarean section in primary gravida was 35.18% and 12.61% in multigravida.

Most common age group in group A was 21-25 years (52%) while in group B, it was 26-30 years (45.3%). 4.7% cases were found above the age of 35 years in group B and this difference was found statistically highly significant ($p<0.001$) which is comparable to study done by Suresh and Suresh [5] Age distribution in both groups revealed an older age profile in multigravida.

Majority of patient came from rural area in both groups (56% in group A and 62% in group B). In group A majority of patients belonged to booked category (71.3%) whereas in group B only 22% were booked. This fact reveals poor level of antenatal booking in group B, due to common belief amongst public that once a mother delivered a child or children normally all her subsequent deliveries will be normal. Our study is comparable to study conducted by Himabindu and Tripura [6] where only 29% cases of multigravida were booked. Majority of patients belongs to lower socioeconomic class (62% in group and 82% in group).

Most of the patients had cephalic presentation in both groups (72.7% in group A and 86.7% in group B). Mal-presentation like transverse lie and compound presentation were present in 8.66% and 2.66% of the group B respectively while it was nil in group A. This shows mal-presentation were more common in multi gravida due to pendulous abdomen and lordoses of lumbar spine. These observations are comparable with study of Saluja *et al*. [7]

On further subdivision in multiparous, when parity increases incidence of malpresentation also increase. This leads to increase incidence of caesarean section as parity increases. Various studies like Himabindu & Tripura [6], Saluja *et al*. [7] are comparable.

In group A 10% LSCS were elective as compared to group B where only 7.3% were elective. In group A, most common elective indication was primi breech (40%) followed by placenta previa (26.7%). other indications were found to be precious pregnancy (13%), intra uterine growth retardation with oligohydramnios (13%) and cephalopelvic disproportion (6.7%). While in group B, most common elective indication was placenta previa (45.4%) followed by transverse lie (27.3%). Other indications observed were iugr with oligohydramnios (18.2%) and cephalopelvic disproportion (9.1%). This shows that placenta previa being more common in multigravida. Malpresentations like tranverse lie are also seen more in multi most probably due to pendulous abdomen.

In group A, most common emergency indication was fetal distress (53.3%) followed by primi breech with big baby (20.7%). In group B, although fetal distress was there in 30.2% cases but most common indication of LSCS was APH (35.9%). Beside this other indication like mal-presentation, mal position, obstructed labour, impending rupture and cord prolapse were seen with higher incidence in group B as compared to group A. Lack of antenatal care and intra-natal mismanagement by traditional birth attendant in multipara are responsible for these variations. Various studies, like Himanbindu *et al*. [30], Rao and Rampure [8], Desai *et al*. [9] shows similar results.

Das RK *et al*. [10] found arrest of labour in 13.93%, Foetal distress 10.97%, Breech 5.74%, Oligohydramnios/IUGR 5.21%,

Failed induction 5.21%, PIH 4.87%. Others in decreasing order were Multifetal gestation, Prematurity, Obstructed labour, APH, BOH, Malpresentation, Cord prolapsed. Other studies like balci *et al.* [11] found similar results.

Conclusion

Safe medical practice norm has changed the delivery practices in favour of C-Section. There is no empirical evidence for an optimum percentage. Safe reduction of the rate of primary caesarean deliveries will require different approaches for each indication. Evidence based practices with audits in the institute will help in reducing csection rates without increasing complications.

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References

1. National Institutes of Health state-of-the-science conference statement. Cesarean delivery on maternal request. Obstet Gynecol. 2006; 107:1386-97.
2. Stanton C, Ronsmans C. Recommendations for routine reporting on indications for caesarean delivery in developing countries. Birth. 2008; 35:204-11.
3. Torloni MR, Betran AP, Souza JP, Widmer M, Allen T, Gulmezoglu M *et al*. Classification for caesarean section: a systemtic review. PLoS One. 2011; 6:e1456.
4. Rajput N, Singh P, Verma YS. Study of primary caesarean section in multigravida patients. Int J Reprod Contracept O Obstet Gynecol. 2018; 7(1):185-191.
5. Suresh YA, Suresh YV. A prospective comparative study of caesarean section in multiparous and primiparous women. Int J Pharma Bio Sci. 2017; 8(3):(B)890-895.
6. Himabindu P, Tripura M. Primary Caesarean Section in Multipara. IOSR J Den Med Sci. (IOSR-JDMS). 2015; 14(5):22-25.
7. Saluja P, Roy K. Study of primary caesarean section in multiparous women. Natl J Integr Res Med. 2014; 5(2):27-29.
8. Rao JH, Rampure N. Study of Primary Caesarean Section in Multiparous Women. J Evolu Med Dental Sci. 2013; 2(24):4414-4418.
9. Desai E, Leuva H, Leuva B, Kanani M. A study of primary caesarean section in multi gravida. Int J Reprod Contracept Obstet Gynecol. 2013; 2(3):320-324.
10. Das RK, Subudhi KT, Mohanty RK. The rate and indication of caesarean section in a tertiary care teaching hospital eastern India. Int J Contemp Pediatr. 2018, 5.
11. Balci O, Gezginc K, Acar A. The outcome analysis of cesarean section cases in one-year period. Gynecol Obstet Reprod Med. 2007; 13:26-28.