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THE RATE AND INDICATIONS OF CAESAREAN SECTIONS IN TERTIARY CARE HOSPITAL IN KASHMIR

Gynaecology

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ABSTRACT

OBJECTIVE: The main objective of the study was to analyze the rate and indications of caesarean sections in our hospital, which is a lone tertiary care hospital of Kashmir.

MATERIAL AND METHOD: Our study was a retrospective study conducted in Department of obstetrics and Gyneacology, Lalla Ded hospital, Government Medical College, Srinagar Kashmir from July 2019 to December 2019.

RESULTS: A total of 10,866 births occurred in the study period, out of which 7210 (66.35%) were caesarean deliveries. Majority of caesarean deliveries were done as emergency cases (92.45%) while as only 7.54% of cases were done on elective basis. 65.54% of patients belonged to age group 31-40 years. Majority of cases were primigravida (53.93%) while as 38.2% were G2-G4. Our study reported the primary caesarean rate of 70.31% while as repeat caesareans were 29.68%. Fetal distress was the leading indication for caesarean section (32.76%) followed by previous one scar (16.85%).

CONCLUSION: The rate of caesarean deliveries in our hospital was 66.35% with fetal distress followed by previous one caesarean as most common indication.

KEYWORDS

caesarean section, rate, indications

INTRODUCTION

The rate of caesarean section has become an important global indicator for measuring access to obstetric service (1). Caesarean section is the most widely performed surgical procedure in obstetrics worldwide, thanks largely to antibiotics, improved anesthesia and the availability of blood transfusions. There has been a progressive increase in caesarean deliveries worldwide, in developed as well as developing countries. Besides the increase in caesarean for medical indications due to greater access to hospital based care, there has been a significant increase in caesarean sections for not very accepted indications like avoidance of labour pain, convenience of patient and obstetrician , less pelvic floor trauma and greater safety for the baby.

However according to the WHO statement of 1985, caesarean section rates more than 10-15% have not been seen to decrease the maternal and neonatal morbidity and mortality(2)(3)(4). These figures have been surpassed in most developed countries and are now a subject of public health concern. The incidence in the United States increased from 5% in 1970 (5) to 27.5% in 2003(6) to 32% in 2014(7). In United Kingdom the caesarean section rates for the year 2000 were 21.3% for England and 24.2% for Wales (8). The incidence of caesarean section is also very high in private institution as compared to public/government institution (9) with rates going upto 70%. The caesarean section rates in India are increasing at an alarming rate. Is it that the caesareans are being done for unwarranted indications or the WHO statements of 1985 needs to be reconsidered.

This study aims at analyzing the incidence and indications of caesarean sections performed in our hospital over a period of six months. This is a step to find out indications of caesarean which may help us to reduce the incidence rate in the institution in future.

MATERIAL AND METHODS

It is a retrospective study conducted in Department of obstetrics and gynecology, Lalla Ded Hospital, Government Medical college Srinagar, which is a lone tertiary care hospital of Kashmir valley. The study period was from 1st July 2019 to 31 Dec 2019. Total of 7210 caesarean deliveries were analyzed from data on case sheets. Data collected included the age, parity, elective/emergency LSCS and the indication of caesarean section.

RESULTS AND OBSERVATION

During our study period, a total of 10,866 women delivered, of which 7210 woman delivered by caesarean sections. The prevalence of caesarean deliveries at our hospital comes to be 66.35% (table 1).

Table 1: Prevalence of caesarean deliveries

Total deliveries -10866

	No. of cases	Percentage
Deliveries by LSCS	7210	66.35%
Vaginal deliveries	3656	33.64%

Out of 7210 caesarean deliveries, majority of patients i.e. 6666(92.45%) had emergency caesarean deliveries while as 544 (7.54%) had elective caesarean deliveries (table 2).

Table 2: Proportion of Elective/Emergency cesarean deliveries

	No. of cases	Percentage
Elective CS	544	7.54%
Emergency CS	6666	92.45%
Total	7210	100

Analysis of age showed maximum number of patients i.e. 65.54% in >30year age group (table 3). Out of 7210 caesarean deliveries, 3889 (53.93%) were primigravidas, 2757 (38.23%) were G2-G4 and 564 (7.82%) were >G4 (table 4).

Table 3: Age distribution

Age distribution(years)	No of cases	Percentage
<20	628	8.71%
20-30	1856	25%
>30	4726	65.54%

Table 4: Parity

Parity	No of cases	Percentage
Primi	3889	53.93%
G2-G4	2757	38.23%
>G4	564	7.82%

Table 5 shows the number of patients undergoing primary and repeat caesarean sections.

Table 5: Proportion of primary/ repeat caesarean sections.

	No of cases	Percentage
Primary CS	5070	70.31%
Repeat CS	2140	29.68%

Table 6 shows the various indications for which caesarean section were performed. Acute fetal distress, NRCTG and previous one scar were responsible for maximum number of caesarean deliveries. Miscellaneous group included patients with indications like failure of induction, various medical disorders complicating pregnancies, uncooperative patients and unspecified reasons.

Indications	No of cases	Percentage
Acute fetal distress	1372	19.03
NRCTG	768	10.65
GDM	64	0.89
SEVERE PIH	299	4.15
NPOL	249	3.45
APH	246	3.41
SEVERE OLIGO	222	3.07
MALPRESENTATION	276	3.82
CPD	714	9.9
PREV 1 SCAR	1215	16.85
PREV 2 SCAR	845	11.71
PREV 3 SCAR	80	1.1
MULTIPLE GESTATION	121	1.67
MISCELLANEOUS	739	10.25

DISCUSSION

The prevalence of caesarean deliveries in our hospital during the study period i.e. from 01.07.2019 to 31.12.2019 was 66.35% while as the prevalence of normal deliveries was 33.64%. The increase in caesarean rate is a global phenomenon. Commonly cited causes include : increase detection of fetal distress especially using continuous electronic fetal monitoring, liberal use of caesarean sections in high risk cases like previous caesarean delivery, IUGR fetuses, multiple pregnancies, malpresentations, high percentage of elderly primigravida patients, fear of labour pains, , avoidance of instrumental and difficult vaginal deliveries. G Singh et al reported caesarean section rate of 51.1% from Agroha Haryana (10). Similarly Liu et al reported the caesarean rates to be 54.90% from Mainland China(11). Lower caesarean rates were reported by Santhanalakshmi C et al (12) from Maduranthagam , Tamil Nadu where the rate was 12.5%. Similar findings were seen in a study conducted by Samdal L J et al (13) from rural Nepal where the caesarean rate was only 9.50%. The differing rates of caesarean section rates could be because of difference in the population being studied like less percentage of patients with previous caesarean, more acceptability of normal deliveries in rural rather than urban population. In our study emergency caesareans accounted for 92.40% of cases while as rate of emergency caesarean was only 7.5%, corroborating the fact that majority of the pregnant women were reffered with more than high risk factor from peripheral hospitals of Kashmir. Different studies from other parts of India showed incidence of emergency caesarean deliveries to be 82.70% and 85.92%(14).

Analysis of age of the patients showed a trend of late marriages in Kashmir as 65.5% of patients in our study belonged to >30 year age group. Around 8.7% were teenage pregnancies and the rest i.e. 25% were in 21-30 age group. This is in quiet contrast to other Indian studies which showed different results(15,16). The trend of late marriages and subsequent pregnancies after 30 years of age could be another possible reason for increased caesarean rates in our study. Similar observations were seen from a study of a Latin American hospital where maximum primigravida patients were >30 yr old reflecting delayed age of marriage and pregnancies in western countries as well (17).

In our study , prevalence of primary caesareans was high about 70.31% with many 53.93% of patients being primigravidas. The prevalence of repeat caesarean section was 29.68% with previous one section being 16.85% and >two scar being 12.81%. Repeat caesarean sections constitute the significant proportion of patients undergoing caesarean in most of the countries. After one caesarean there is 67% chances of having repeat caesarean section(18). The low threshold for performing vaginal births after caesarean delivery is probably due to risk of uterine rupture in labour. In our study VBAC was tried very judiously as many of the patients reported to our hospital as emergency with more than one risk factor, doubtful scar strength and were not having proper records of previous caesarean sections. We have to work on this group of patients with previous one caesarean to decrease the rate of repeat caesarean sections. In our hospitals , no trial of vaginal delivary was given to previous two or more caesarean sections due to possible risk of maternal and fetal complications .

Fetal distress which included meconium stained liquor, non reactive CTG, and severe oligohydroamnios was responsible for 32.76% of LSCS in primary caesarean group. Continous monitoring by CTG has made the detection of fetal distress possible at the earliest. Computerized interpretation of CTG or use of scalp PH can be applied to definitely diagnose the distress which could save a few caesarean sections (19). Malpresentations as indication for caesarean , accounted for 3.8% of caesareans. There is a high chance that patients with diagnosed malpresentations are referred more to our tertiary hospital. Antepartum haemorrhage including both placenta previa as well as abruption was responsible for 3.4% of caesarean section. There has been a progressive increase in incidence of adherent placenta previas in our hospital. All patients with antenataly diagnosed adherent placenta are reffered to our hospital. Severe pre eclampsia accounted for 4.47% of cacerean sections indicating the need for early detection and better control of pre eclampsia before it progresses to severe pre-eclampsia leading to emergency caesarean deliveries. Gestational diabetes with macrosomia was responsible for 0.8% of caesarean sections in our study. Non progression of labour was responsible for 3.4% of caesarean sections in our study. Use of partogram in all laboring patients can help to detect the non progression of labour definitely and hence can reduce the caesarean section rate. Cephalopelvic disproportion was responsible for 9.9% of caesarean section in our study. Around 10% of patients the indication for caesarean were failure of induction, pregnancy complicated with various medical disorders where normal vaginal deliveries were contraindicated .

CONCLUSION

In today's world of small family norm and late marriages, the delivery practices have changed in favour of caesarean sections. Though caesarean sections have become increasingly safe due to improved surgical techniques and modern anesthetic skills, it still carries a slightly greater risk than normal vaginal delivery and the risk is more in subsequent pregnancies. There is no empirical evidence of an optimum percentage of caesarean deliveries what matters most is that the women who need caesarean sections should receive them (WHO statement of 2010). Definitely unnecessary caesarean sections can be reduced by decreasing the rate of primary caesarean sections which will require different approaches for each indication. Individualization of the indication and careful evaluation, following standard guidelines, practice of evidence based obstetrics and audit in the hospitals can help us limit the caesarean section rate.

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