Original Article

Caesarean Section

Frequency and indications of Caesarean Section at Department of Obstetrics and Gynaecology Unit-III, Civil Hospital Quetta

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ABSTRACT

Objective: To determine the frequency and indications of caesarean section at Department of Obstetrics and Gynaecology Civil Hospital Quetta, Unit-III.

Study Design: A descriptive study.

Place and Duration of Study: Department of Obstetrics and Gynaecology unit-III, Civil hospital Quetta, from May 2011 to April 2012.

Materials and Methods: This study was performed on all the patients admitted during study period for both emergency and planned caesarean section, excluding cases of ruptured uterus on laprotomy. Data was collected from labor room and operation theater records. Information was obtained on frequency, indications of caesarean section and patient related demographic variables. Descriptive statistics were calculated on SPSS version.

Results: Out of 4690 deliveries, caesarean section was performed on 626 patients. The rate of caesarean section was 12.62%. Emergency caesarean sections were 570(91%) while 56(8.9%) were planned caesarean sections. The commonest indication was repeat caesarean section 337(53.8%) followed by obstructed labor in 150(23.9%) cases. Other indications were antepartum haemorrhage 52(8.3%), breech presentation 39(6.2%), miscellaneous 48 (7.6%) for bad obstetrical history, fetal distress, pregnancy induced hypertension, eclampsia, other malpresentations.

Conclusion: Caesarean section is a common form of delivery. Repeat cesarean section and obstructed labor are the most frequent indications.

Key Words: caesarean section, emergency caesarean section, repeat caesarean section, Obstructed labor.

INTRODUCTION

Caesarean section is the most common obstetric operation performed worldwide[1]. Although delivery by caesarean section has become increasingly safer but it cannot replace vaginal delivery in terms of low maternal and neonatal mortality and less cost[2]. The overall caesarean section rate has increased progressively both in developed and developing countries particularly over past ten years[3]. Rate of caesarean section in USA is higher, 29% in 2004 and 30.5% in 2008[4,5], England 21.5 %[6], Latin American countries 40 %[7], India 32.6 %[8] and Nigeria 23.1%.[9]

The caesarean section rate in different hospitals in Pakistan varies between 21%-31%.[10,11] This rate is probably in private institutes. There is no consensus regarding the ideal caesarean section rate, however World Health Organization states that no additional health benefits are associated with a caesarean section rate above 10-15%.[12] The reasons for this increase in caesarean births are multifactorial and repeat caesarean in patients with previous caesarean is main contributory factor for high frequency of caesarean delivery worldwide. [13] Therefore the decision to perform primary caesarean section is of prime importance for reducing the need of repeat caesarean section subsequently. Other reasons of increasing caesarean section rates is continuous electronic fetal heart rate monitoring to detect fetal distress, more liberal use of caesarean birth for breech presentations, growth restricted fetuses and caesarean section on maternal request. [14] It is proposed that careful probing of the trend and indication of caesarean section may identify the pathway to lower the rate of caesarean sections. The objective of this study was to determine the frequency and the indications of caesarean section in a tertiary care hospital.

MATERIALS AND METHODS

This study was conducted at Department of Obstetrics and Gynaecology, Civil Hospital, Quetta over a period of one year from May 2011 to May 2012.All the patients who underwent caesarean section were analyzed in terms of their age, parity and indication of caesarean section. According to the urgency of caesarean section they were grouped as emergency and elective or planned caesarean cases. The confirmed cases of ruptured uterus on laprotomy were excluded. Caesarean deliveries were classified in to five groups i.e. obstructed labor, repeat caesarean section, antepartum haemorrhage, breech presentation and others.

RESULTS

Out of 4690 deliveries 626(13.3%) were caesarean sections. 570(91%) were done in emergency while 56(8.9%) were elective. Out of 626 patients, 71 (11.3%) patients were less than 25years of age, 449(71.7%)

were between25-35years and 105(16.7%) were above 35years of age.

Table No.1: Types of caesarean section (n=626)

Type of caesarean section	Number n=626	Percentage (%)
Emergency caesarean sections.	570	91%
Elective caesarean sections.	56	8.9%

Table No.2: Distribution of cases according to maternal age (n=626)

Age (in years)	Number (n=626)	Percentage (%)
< 25	71	11.3%
25-35	449	71.7%
>35	105	16.7%

165(26.3%) were primigravidae, 370(59.7%) were multigravida and 31(11.8%) were grand multigravida. The commonest indication of caesarean section was previous caesarean in 337(53.8%) followed by obstructed labor in 150(23.9%) cases, antepartum haemorrhage in 52(8.3%) and 39(6.2%) for breech presentation. Other indications were fetal distress, cord prolapse, malpresentations, pregnancy induced hypertension, eclampsia, diabetes and twins. (Table 3)

Table No.3: Indications of caesarean section.

Indication	Number (n=626)	Percentage (%)
Previous caesarean section.	337	53.8%
Obstructed labor.	150	23.9%
Antepartum haemorrhage.	52	8.3%
Breech presentation.	39	6.2%
Miscellaneous.	48	7.6%

DISCUSSION

The caesarean section rate of 13.34% in this study was lower than 17.8% reported from Lady reading hospital Peshawar[15], 27.94% reported from civil hospital Karachi[16]. Another study done by Nosheen Aziz et al at Liaqat University Hyderabad showed caesarean section rate of 23.70% to 30.78% respectively[17]. In our study, caesarean section rate was within recommended rate of 10%-15% by World Health Organization for developing countries. This low rate might be the dilution effect of patients population as majority of the women delivered were at low risk because being a public sector hospital, our unit accepts both self referred low and high risk patients as well as those referred by other centers and rural areas.

Studies of UK and USA showed that caesarean section on maternal request or demand is most frequent among women of higher social class[18]. Similar results have been seen in a study at Tehran where caesarean section rate was as high as 84% among high socio economic class in a private maternity center[19] However; this trend is not frequent in our community because of less awareness, poor socio economic statuses, illiteracy and traditional beliefs like fears about caesarean delivery and preferences for larger family sizes. Another study by Asil karakus et al at Istanbul, Turkey showed higher caesarean section rate in higher socio cultural back ground and among more educated women.[20] A study from USA showed that caesarean section rate is high among white women belonging to high social class than poor women.[21]

In our study, 570(91%) caesarean sections were done in emergency because majority of the patients were unbooked cases, self referred from within the city and rural areas after having failed labor trial at homes by traditional birth attendant or lady health visitor, even with previous caesarean section. Similar results were obtained by Farah Karim, S Nayab Bilal and Nosheen Aziz. Other developing countries like Nigeria and Nepal also showed similar results.[22]

Analysis of indications revealed that in 337(53.8%) patients repeat caesarean section was done, the main contributory factor for high caesarean births at our unit. Our results are consistent with studies conducted by Saima Rafique, Gul e Rana and Farhana Yousuf et al. According to the RCOG guidelines, women are more likely to have caesarean section if they had a previous caesarean section so to reduce the frequency of repeat caesarean section trial of vaginal birth after caesarean section (VBAC) should be encouraged in appropriately selected women with previous caesarean section. In our setup majority of women with previous caesarean section come in advanced labor often with fetomaternal complications and no antenatal records. These reasons limit the role of trial of labor. Other factors include wishes for high parity particularly to born more baby boys and reluctance for tubal ligation. Second common indication group was obstructed labor.

Studies show that Continuous electronic fetal heart rate monitoring to detect fetal distress is directly associated with an increase in caesarean delivery.[23] But this technique is not available at our unit and fetal distress is picked by changes in fetal heart rate on intermittent auscultation and color of liquor. Study by Al-Mulhim and et al showed that use of an objective assessment of fetal hypoxia would have increased the rate of cesarean delivery so non availability of facility of continuous electronic fetal heart rate monitoring is one of the reason of low cesarean section rate at our unit. Other developing countries like Nigeria, Jordan showed similar results. Therefore, fetal distress is not a common indication of caesarean section here.[24] And is also one of the reasons of low caesarean section rate at our unit. A study done by Al-Mulhim et al showed that the use of an objective assessment of fetal hypoxia would have lowered the rate of caesarean delivery.[25,26]

CONCLUSION

The caesarean section rate in our study was 13.3% which is within the 15% recommendation of the world Health Organization for the developing countries. The commonest indication of caesarean section observed in this study was previous caesarean section. The factors responsible for low caesarean section rate here include our community's traditional beliefs, socioeconomic norms, illiteracy, fears related to caesarean section and lack of facility of continuous electronic fetal heart rate monitoring by cardiotocography.

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