Original Article

Indications of Emergency C-Section

Rate and Indications of Emergency Caesarean Sections at a Teaching Hospital in Pakistan

Samia Tabassum, Sadia Ali and Sadia Shamsher

ABSTRACT

Objective: Caesarean delivery is an important aspect of emergency obstetric care and a major tool in the reduction of maternal and perinatal morbidity and mortality. This study was done to determine the rate and indications of emergency caesarean sections at Mardan Medical Complex, KPK, Pakistan.

Study Design: Retrospective analysis

Place and Duration of Study: This study was conducted at the Department of Obstet & Gynae, Mardan Medical Complex, KPK, Pakistan from 1st January 2014 to 31st December 2014.

Materials and Methods: A retrospective analysis of the clinical records of all patients delivered by caesarean section was conducted. There were 5409 deliveries with 630 caesarean sections during the review period, giving a caesarean section rate (CSR) of 11.6%.

Results: There were 5409 deliveries with 630 caesarean sections during the review period, giving a caesarean section rate (CSR) of 11.6%. Emergency caesarean sections accounted for 533 (84.5%) caesarean deliveries. The main indications for emergency caesarean sections were repeat caesarean section (16.9%), fetal distress (16.9%), followed by obstructed labour (11.4%).

Conclusion: The rate of emergency caesarean section can be decreased by proper training of lady health workers, skilled birth attendants, and general practitioners, so that they can recognize the risk factors early on and arrange a timely referral of those cases that may need caesarean sections.

Key Words: caesarean section rate, emergency caesarean section, traditional birth assistants, fetal distress, repeat caesarean section

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INTRODUCTION

Caesarean section is the commonest obstetric operative procedure worldwide.[1,2] Its incidence is on the rise throughout the world.[4] There is growing concern that caesarean rates have been rising for all women in the world regardless of medical condition, age, race, or gestational age.[5] Rising caesarean section rate in developing countries is alarming as it increases maternal morbidity, owing to fever, bleeding, anesthesia complications, post operative thrombo-embolism and long term risk of having morbidly adherent placenta leading to obstetrical hysterectomy or uterine rupture with progressive number of scars.[6]

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The World Health Organization has identified an ideal caesarean section rate for a nation, of around 10-15%.[7] This is based on studies that show improving maternal and neonatal morbidity and mortality as rates rise up to this level, but minimal improvements or even negative health outcomes as the rate increases past 10%.[10]

Caesarean section can be done as an elective as well as an emergency procedure.

MATERIALS AND METHODS

This was a retrospective analysis of consecutive caesarean sections performed at Obstet & Gynae,, Mardan Medical Complex, KPK over one year from 1st Jan 2014-31st Dec 2014. The records from the labour room and operating theatre were retrieved and checked for emergency caesarean deliveries. The delivery records of all the patients who had undergone emergency lower segment caesarean section were obtained and relevant variables were extracted. The variables include age, parity, socioeconomic status, period of gestation, type and indications of caesarean section.

The study was approved by the hospital ethical committee and data analysis was done on the latest version of SPSS.

RESULTS

A total of 5409 patients were delivered during the one-year study period, out of which, 11.6% (630) patients were delivered by caesarean section. 84.5% (533) patients had undergone emergency caesarean section and 15.4% (117) patients were delivered by elective caesarean section. The demographic data is shown in Table 1. The overall rate of caesarean section was 11.6%, with the rate of emergency caesarean section being 84.5%.

Table No.1: Demographic data

Emergency caesarean section	
Age (in years)	16-45
Gestational age (in weeks)	25-42
Socioeconomic status	
Lower middle-class	32%
Poor	68%
Parity	
Primigravida	203 (38%)
Multigravida	330 (62%)

Table No.2: Mode of delivery

Mode of Delivery	Number of Patients (630)	Percentage (100%)
Elective caesarean section	117	15.4
Emergency caesarean section	533	84.5

Table No.3: Indications of emergency caesarean sections

Indication	Number of Patients	Percentage (%)
Repeat caesarean section	90	16.9
Fetal distress	90	16.9
Obstructed labour	61	11.4
APH	56	10.5
Breech presentation	44	8.3
CPD	39	7.3
PROM	32	6.0
Neglected transverse lie	27	5.0
Eclampsia/Pre-Eclampsia	20	3.7
Non-progress of labour	8	1.5
Miscellaneous	66	12.4%

Table No.4: Details of repeat caesarean sections

Previous Caesarean	**No. of patients**	**Percentage (%)**
Previous one C/S	70	77.8
Previous two C/S	16	17.8
Previous three C/S	4	4.4

Table 2 The three most common indications of emergency caesarean sections were repeat caesarean section at 16.9% (90), fetal distress at 16.9% (90), followed by obstructed labour at 11.4% (61). Indications for emergency caesarean section are shown in Table 3. Details of repeat caesarean sections are given in Table 4.

DISCUSSION

Caesarean sections have long been practiced as an obstetrical surgical procedure that contributes to reducing fetal complications and although it is classified as a major procedure, the incidence of caesarean section has considerably increased over the years all over the world.[11] But its advantages do not justify its continuous increase since it carries considerable disadvantages when compared with normal vaginal delivery.[12]

During the study period, 84.6% caesarean sections were done as emergency procedures. The rate of emergency caesarean sections was almost comparable to earlier studies done by Onankpa et al (80.6%)[13] in Nigeria in 2009 and Sultana A et al (82.4%)[14] in Pakistan in 2003. The studies conducted by Ugwu EO et al in 2011[15] showed a higher rate of emergency caesarean section than ours, being 93.7%.

The rates given by Daniel CN et al (57.5%)[16], Ehtisham S (58.5%)[6], Aminu M et al (68%)[17], and Shamshad (68.9%)[2], and are lower than our value of 84.6%. In our study the high rate of emergency caesarean sections shows last-moment referrals by traditional birth attendants, health workers and general practitioners from the periphery to this hospital. They do not refer the patient in time and are unable to recognize the risk factors which may lead to requiring a caesarean section.

The three most common indications were repeat caesarean section (16.9%), fetal distress (16.9%), followed by obstructed labour (11.4%). These indications are in accordance with studies conducted by Mdegela MH et al, Shamshad and Ehtisham S.[2,6,18]

Repeat caesarean section was one of the most common indications for emergency caesarean sections in our study. The decision of primary caesarean section is important.[19,20] If we prevent primary caesarean sections, more can be prevented. Unless there is a clear-cut and well-supported justification for caesarean section, a trial of vaginal delivery is necessary.

Fetal distress was the other leading indication for emergency caesarean sections in our study and it accounted for 16.9% of emergency caesarean sections. This high value may be related to the use of intermittent auscultation and to assess the nature of amniotic fluid as a means of fetal monitoring during labour in our hospital. There were no facilities for continuous electronic fetal heart rate monitoring or further acid base studies of fetal scalp blood sampling. The diagnosis of fetal distress largely depended on clinical signs (fetal heart rate abnormalities and meconium staining of the liquor which may be a result of incorrect and overdiagnosis sometimes.)

Obstructed labour was another common indication for emergency caesarean sections. Almost all of these were referred cases which were mishandled by traditional birth attendants (TBAs) and lady health workers from the periphery. Their injudicious use of oxytocin, and induction with prostaglandins without proper assessment of patients were the most probable cause of pregnancies ending in obstructed labour. Current research suggests that labour induction makes a caesarean section more likely among first time mothers when the cervix is unfavourable.[21,22]

Other main indications were APH, malpresentation, CPD, and non-progress of labour. Besides this, other miscellaneous indications for caesarean sections were unstable lie, scar tenderness, bad obstetrical history, postdates or prolonged pregnancy and two cases of maternal request.

CONCLUSION

The rate of emergency caesarean sections can be decreased by proper training of lady health workers, skilled birth attendants and general practitioners, so they can recognize the risk factors early on, and arrange timely referrals of cases who may need caesarean sections. This practice may reduce the incidence of emergency caesarean sections and its associated maternal and fetal morbidity and mortality.

Author's Contribution:

Concept & Design of Study:	Samia Tabassum
Drafting:	Samia Tabassum
Data Analysis:	Sadia Ali
Revisiting Critically:	Sadia Shamsher
Final Approval of version:	Samia Tabassum

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