

An Audit of Increasing Cesarean Section Rate in Primigravidas

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ABSTRACT

Aim: To determine the rate of cesarean sections in primigravida and to identify the various determinants and factors for these cesarean sections.

Study design: Prospective study.

Place and duration of study: Government Lady Aitchison hospital, King Edward Medical University Lahore from Jan 2013 to Dec 2013.

Methods: Two hundred and fifty patients at term were enrolled and clinical record was maintained. It included all the pregnant women at term, booked in the antenatal clinic and the unbooked patients admitted in early labour for which cesarean sections were indicated later. Detailed history was taken and examination was carried out. A clinical record was maintained which included, antenatal booking status, gestational age, labour pains, leaking per vaginum, bleeding, blood pressure, indications and complications of cesarean sections and neonatal outcome.

Results: Total 250 patients were included in the study. (49.2%) patients had antenatal record with them while (50.8%) patients presented through emergency without antenatal checkup. Induction of labour was carried out in (18.4%) patients due to various indications. In (46.8%) patients, the labour either did not start or progressed only for less than 5 hours and prolonged for more than 10 hours in (21.2%) cases. (45.6%) patients had leaking of amniotic fluids. Hypertention was seen in (16.4%) patients. In (79.6%) patients, fetal presentation was cephalic and (20.4%) had different malpresentations of which the breech was the commonest; (74.5%). CTG was reactive in (48%) cases while nonreactive in (26.4%). Amniotic fluid was adequate in (62.4%) cases and scanty in (36.8%) cases. The most common Indication of cesarean section was fetal distress in (60.80%) and malpresentations in (20.4%) cases. In unbooked primigravidas, the complications seen were fetal distress (60.5%), malpresentations (52.9%), hypertension (46.3%).

Keywords: Complications, unbooked, primigravidas.

INTRODUCTION

The overall cesarean section rates have increased progressively over many parts of the world. This is especially seen in primigravidas. First pregnancy is important regarding subsequent obstetric performance. Unfortunately this aspect of the women's health is not given proper importance. Factors involved are lack of education, unawareness about importance of antenatal care, lack of health facilities and nonavailability of proper referral system. Misconceptions about medical management of pregnancy, religious and cultural factors are also responsible for improper antenatal care. Cesarean section rate was more in primigravidas, (57.5%) as compared to multigravidas (42.6%)¹. The incidence of cesarean section seems to increase in

primigravida as compared to multigravida². Among cesarean section rate, (28.4%) were primigravidas³. A significant increase (14.8%) in the rate of cesarean section in the last ten years is observed and it has gone particularly high in primigravidas⁴. Majority of unbooked patients belonged to primiparity (67.30%). The rate of emergency cesarean section (5.5%) was higher in primiparity⁵. The overall cesarean section rate was 12-13%. The rate of cesarean section in the primigravida was 12%⁶. The rise in the cesarean section rate was higher in primigravidas compared with multigravidas (10.9% vs 6.2%)⁷. Cesarean section rate in primigravida is increasing⁸. Cesarean section rates are arising, cesarean section confers an increase in maternal mortality and morbidity as well as having considerable financial implications⁹. Emergency cesarean section is indirect reflection of level of antenatal care². Pregnancy complications were most prevalent in unbooked patients. Antenatal care is related to lowered maternal mortality. Booking status had a greater positive influence than education¹⁰. The main indication of cesarean section in primigravidas

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was fetal distress⁸. Obesity significantly increases the frequency of cesarean section especially in primigravidas¹. Fetal distress is by far the commonest indication of emergency cesarean. The results show that cesarean section would be the choice of delivery for any fetus with breech presentation at term because the prognosis for the fetus was found to be significantly better. Fetal morbidity related to birth trauma in breech delivery was higher¹¹. The rate of cesarean section in the primi breech was slightly higher than in multiparas⁶. Among the indications for cesarean section in primigravida, cephalo pelvic disproportion accounted for 36.67% cases¹². Of the primary cesarean group, the commonest indication was failure to progress (30.1%). The three most common indications for cesarean section are fetal distress in labour, failure to progress and by attempting vaginal birth after cesarean delivery³. Majority of unbooked patients belong to rural areas¹³. Unbooked women are often referred to maternity centres when complications had arisen either during pregnancy or in labour. Lack of supervised antenatal care is associated with a significantly worse fetomaternal outcome⁸. Poor antenatal care is an important risk factor for adverse pregnancy outcome among women who have easy access to health care services¹⁴. The unbooked emergencies as a group suffer the consequences of no skilled antenatal supervision. The concept of prophylaxis in pregnancy was introduced at the end of the nineteenth century in Europe. Antenatal care is the clinical assessment of mother and fetus during pregnancy, for the purpose of obtaining the best possible outcome for the mother and baby. The purpose of the study was to determine the rate of cesarean sections in primigravidas and to identify various determinants and factors for these cesarean sections.

MATERIAL & METHODS

Two hundred and fifty patients at term were enrolled and clinical record was maintained. It included all the pregnant women at term, booked in the antenatal clinic and the unbooked patients admitted in early labour for which cesarean sections were indicated later. Detailed history was taken and examination was carried out. A clinical record was maintained which included, antenatal booking status, gestational age labour pains, leaking per vaginum, bleeding, blood pressure, indications and complications of cesarean sections and neonatal outcome. Simple descriptive statistical methods, (frequency and percentage) were used to describe the study variables.

RUSULTS

Table 1: (n=250)

	n	%age
Booked	123	49.2
Unbooked	127	50.8

Table 2: Malpresentations.

Malpresentations	n	% age
Total malpresentations	51	20.4
Breech	38	74.5
Transverse lie	6	11.7
Compound	1	1.9
Face	5	9.8
Brow	1	1.9

Table.3: Indications of cesarean sections.

Indications	n	% age
Fetal distress	152	60.8
Mapresentations	51	20.4
Hypertention	11	4.4
Social demand	10	4
Obstructed labour	9	3.6
Failed induction	7	2.8
APH	4	1.6
Failure to progress	3	1.2
Repaired rectal fistula	1	0.4
Diabetes	1	0.4
Sever IUGR	1	0.4

Table.4: Complications of unbooked pregnancies.

	n	%age
Fetal distress	92/ 152	60.5
Malpresentations	27/51	52.9
Eclampsia/PIH	19/41	46.3

DISCUSSION

Increasing rates of cesarean delivery in primigravidas has been a public health concern now a days. This increase in rate of cesarean section has been a global phenomenon. In the past ,it was usually performed for maternal reasons but now a days frequently performed for fetal reasons in addition to maternal reasons. In the study, 127(50.8%) patients were unbooked. There was a significantly higher incidence of cesarean deliveries in unbooked patients⁸. Cesarean section rate in the unbooked primiparas was 15% as compared to 12% in the booked one⁶. Poverty, multiparous mothers, illiteracy, lack of health facilities, and transportation, trial of labour at home by untrained personal adds to problem of high emergency cesarean section rate.²In our study,46(18.4%) patients were induced due to post dates and other complications. Duration of labour was more than 10 hours in 53(21.2%) cases,

between 5 to 10 hours in 80(32%) patients and less than 5 hours or no labour in 117(46.8%) cases. 114(45.6%) patients presented with ruptured membranes. Primigravidas were at significantly higher risk for prolonged first and second stage of labour.¹⁵The active phase of first stage was prolonged for more than 8 hours in 53(26.5%) primigravidas. Prolonged second stage for more than 2 hours was seen in 15 (7.5%) of primigravidas¹⁵.

In the study, the incidence of hypertension was 41(16.4%) in primigravidas. Incidence of complications in unbooked cases was much higher than booked cases¹³. In majority of cases the indications were fetal distress (23.4%), obstructed labour, (26.7%) and pregnancy induced hypertension (19.8%). Among the indications for cesarean sections in primigravidas, the hypertensive disorders of pregnancy accounted for 22.22%¹².

Pregnancy complications in unbooked patients included anemia and pregnancy induced hypertension. Pregnancy induced hypertension was commonest complication in elderly primigravidas (24.35% vs 6.41%)¹⁶. In patients presenting with obstetric complications, (15.5%) patients had eclampsia¹⁷. In the study, cephalic presentation was seen in 199(79.6%) patients. Rest of the patients, 51(20.4%) had malpresentations. The incidence of high head at term was 22%. The common aetiology was deflexed head and cephalo pelvic disproportion¹⁸. The rate of cesarean section in primiparas breech was 41%⁶. Our study revealed, In malpresentations, 38(74.5%) patients were operated for breech, 6(11.7%) for transverse lie, 5(9.8%) for face and 1(1.9%) each for compound and brow presentations. In breech presentation, elective cesarean sections were done in 78(29.4%) cases and majority were primigravidas (68.75%)¹⁹. Emergency cesarean section was done in 30(15%) primigravidas. Indication was fetal malposition in 8(4%) cases¹⁵. Fetal distress was the main indication of cesarean section in our study; 152(60.8%) and it was more common in unbooked as compared to booked patients; 92(60.5%) vs 60(39.5%). Fetal distress has the highest contribution in increasing rate of cesarean section in primigravida⁷. The two main indications for cesarean sections were: previous cesarean section (27%) followed by fetal distress (19%)²⁰. Fetuses of (43.2%) patients developed fetal distress¹³. Fetal distress with or without failure at progress was the main indication for cesarean section in singleton cephalic presentation. Fetal distress was the leading indication for cesarean section in twins⁶ (6.8%) patients underwent cesarean section during labour primarily for non re assuring

fetal heart²¹. The most common fetal heart abnormality was persistent bradycardia in (48.8%) cases²¹. 141(56.4%) babies had meconium staining of liquor in the study. Meconium stained liquor was seen in 24(12%) patients and non re assuring cardiotocography was seen in 30(15%) of cases. Cesarean section done due to non re assuring CTG were seen in 13(7%) primigravidas.¹⁵The rate of obstetric complications was higher in primiparous as compared to multiparous mothers⁵.

Cesarean section was carried out in 10(4%) patients on demand in the study. There are many reasons for a cesarean section on demand; fear of delivery, fear of pain, family pressure, more control of events, improved care and maintaining the integrity of pelvic floor. The principle of a patient's right to actively participate in her choice of medical treatments should be extended to cesarean section on demand²². The clinician's role should be to provide the best evidence-based counseling possible to the pregnant women and to respect her autonomy and decision making capabilities when considering route of delivery²³. The major complications seen in unbooked patients in the study were fetal distress 92(60.5%), malpresentations 27(52.9%), eclampsia, preeclampsia and hypertension 19(46.3%). The rate of obstetric complications was higher in primiparous as compared to multiparous mothers⁵. In the study, the incidence of low birth weight babies (<2.5kg) was almost similar; 18.4%. In booked and unbooked patients. Neonatal asphyxia and perinatal deaths were more commonly found in the babies of the unbooked patients. The mean birth weight among the unbooked was 2.5±0.3kg while for the booked population, the mean birth weight was 3.3±0.3 kg⁸. Perinatal mortality was high in unbooked patients (19.5%) as compared to booked patients¹³. Perinatal mortality is 3 times less in booked patients¹⁰. In our study, 57(22.8%) babies were 2.5kg or less. The number of low birth weight babies was higher in primiparity (55.76%) when compared to multiparity (35.4%)⁵.

There were very high rates of cesarean sections. This could be reduced by reducing primary cesarean delivery, giving quality obstetric care and adhering to standard guidelines²⁴.

CONCLUSION

Primigravidas are high risk patients. The rate of complications is high in this group. They require comprehensive antenatal care to have better maternal and fetal outcome and to reduce complications seen in this group.

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