Acta Medica Scientia 02 [07] (2015)
www.asdpub.com/index.php/ams
E-ISSN: 2454-3594

Original Article

To study the indications and outcome of caesarean section at a tertiary health facility located in a Rural Setting, in Ahmednagar

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Keywords:
Caesarean Section,
Previous LSCS,
Cephalo-pelvic disproportion,
Oligohydromnios

Abstract
Background: Caesarean section (CS) is a common surgical procedure performed in women of reproductive age. The numerous indications for a CS may be due to fetal or maternal problems. Though it is a life saving procedure, it also carries a higher morbidity and mortality than vagina delivery.
Method: This is a retrospective study conducted from January 2014 to December 2014 at a secondary health facility located in a rural setting in Ahmednagar. The theatre registers were the sources of data.
Results: There were fourteen indications for the 731-caeserean sections performed with previous LSCS being the highest indication. Previous LSCS, Fetal distress, CPD and Oligohydromnios were the major indications for caesarean Section. There were 1 maternal death and 4 stillbirths out of the 731 babies delivered.
Conclusion: Changing trends and changing indications are very well can be seen from the study suggesting that **"Once a cesarean always a cesarean"** is what we seem to achieve in near future.

1. Introduction

Caesarean section is one of the commonly performed surgical procedures in obstetrics [1] and is certainly one of the oldest operations in surgery and its incidence is rising worldwide [2]. The caesarean section is a time-honored approach to shortening labor when either mother or child [3] is in danger. The incidence of CS varies from country to country and within the same country varies from hospital [4-6] to hospital. CS has saved lives of many women and [7] babies around the world.

Most reports on outcome of caesarean section in this environment are from specialist and tertiary care centres where there is higher concentration of manpower, logistics, and therefore a higher standard of obstetric care. A suburban care centre obviously has larger constraints in the form of sociodemographic characteristics of patients it caters for, availability of manpower and facilities and level of care it [2] provides. It is on this background that this study aims to study the indications and outcome of caesarean section at a tertiary health facility located in a rural setting, in Ahmednagar.

2. Materials and Method

This is a 12 months retrospective study carried out at PDVVPF hospital and medical college, Ahmednagar January 2014-December 2014.

Data collected from the OT register and tabulated in systematic format to study the results of the observations.

The routine laboratory investigations done were hemoglobin estimation, blood grouping, Rh type, random/fasting blood sugar, and urinalysis.

3. Results

The total number of caesarean section of the 12 months study was 731. Out of 731 cesarian sections 57.86%of cesarean were Emergency caesarean sections while the rest were elective. There were 13 indications for the caesarean sections in the study as shown in table 1.

Table 1: indications for the caesarean sections

Indication of cesarean section	No of cesarean	Percentage
1.Previous LSCS	255	34.88%
2.Cephalo-pelvic disproportion	130	17.78%
3.Fetal distress	120	16.41%
4.Oligohydromnios	98	13.40%
5.Primi gravida with Breech presentation	40	5.47%
6.Failure to progress	35	4.78%
7.Pregnancy induced hypertension	20	2.73%
8.Multi-fetal gestation	10	1.13%
9.Placenta Previa	8	1.09%
10. Unfavorable cervix	5	0.68%
11.Abruptio placentae	4	0.54%
12.Anamolous uterus	3	0.41%
13.Heart Disease	3	0.41%

4 patients were operated because of abruptio placenta resulting in live baby. The patients were operated because they were exhausted with severe anemia from the concealed hemorrhage in the uterus and presented as emergencies. Most of the patients who had emergency caesarean section engaged the services of traditional birth attendants or referred from Rural training health centre of Urban training health centre before coming to the hospital.

731 babies were born by caesarean section during the study period of which 99.8% were live births, 0.2% stillbirth. Maternal outcome and fetal is shown in table 2.

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Table 2: Maternal outcome and fetal

Indication of cesarean section	Maternal outcome(Alive)	Fetal outcome(Alive)
1.Previous LSCS	255	255
2.Cephalo-pelvic disproportion	130	130
3.Fetal distress	120	120
4.Oligohydromnios	98	98
5.Primi gravida with Breech presentation	40	40
6.Failure to progress	34	34
7.Pregnancy induced hypertension	20	20
8.Multi-fetal gestation	10	10
9.Placenta Previa	8	7
10. Unfavorable cervix	5	5
11.Abruptio placentae	4	3
12.Anamolous uterus	3	3
13.Heart Disease	3	3

4. Discussion

CS is undertaken to improve maternal or fetal outcome or reduce anticipated complications from labor and spontaneous vagina delivery. CS itself was associated with a significant morbidity, mortality however; improvements in surgical, anesthetic techniques and availability of blood [8] transfusion and antibiotics have made caesarean section safe. Emergency CS is done during labor while elective caesarean section is planned and done on a specific date chosen by the patient and doctor after accessing the maturity of the fetus. In this study emergency CS accounted for 57.84% of CS. In Ahemednagar, majority of the secondary health facilities are located in the rural and semi-urban areas where majority of the population resides. Most of the tertiary health centers are owned by the state government or by private organizations. Several reports on review of CS in the country emanate from the tertiary institutions.

In Our resource settings, access to skilled care and crucial interventions is always available. Caesarean delivery is a marker for the availability and use of obstetric services in these situations. The number of women having babies born by CS is growing rapidly in both developed and developing countries. The commonest indication for caesarean section in this study was Previous LSCS accounting for around 34.88%. Maternal mortality of 1 women occurred after caesarean section in which the indications for CS was Failure to progress. Preeclampsia is a major cause of maternal morbidity. Eclampsia is an ongoing challenge for the whole medical community, the root of which lies on poverty. To combat this major health problem, drastic changes are needed which require participation of community, government, nongovernmental organizations, doctors and nurses for various strategies addressing health education of the community and provision of proper perinatal care to all pregnant women. Furthermore, an early delivery by caesarean section can also improve the perinatal outcome by decreasing the proportion of babies having birth asphyxia. Eclampsia remains a leading cause of maternal and perinatal morbidity. Women with pre-eclampsia have an increased rate of CS consequent upon the high incidence of intrauterine growth restriction, fetal distress and prematurity. The centre offers antenatal care services but most patients did not utilize it. Preeclampsia may have been diagnosed early with possible improved maternal and fetal outcome even in patients with eclampsia and placenta preavia. CS increases the risk of cardiopulmonary morbidity associated with pre-eclampsia. CS is central to the management of high-risk pregnancies but may be associated with life threatening complications. Ensuring better access to quality care during pregnancy and childbirth is essential to reduce the large number of stillbirths and early neonatal deaths seen in Asia. Traditional birth attendants (TBA) have made the conditions of patients' worse. The main indications in of CS in industrialized countries are previous caesarean section, fetal distress and Cephalo pelvic disproportion. Large numbers of unbooked patients that deliver are shown to have high caesarean sections rates than booked patients in this environment. There is lack of awareness in our population about the need for antenatal care and supervised delivery. Patients' preferred home delivery even the few women that attend antenatal still engage the services of TBA and only present in hospital for delivery when things go wrong. The high maternal morbidity and mortality due to eclampsia in developing countries has been ascribed to late referrals, delay in hospitalization, late transportation, unbooked status of patients, and multiple seizures prior to admission are on the decreasing side. Eclampsia could be prevented in majority of cases if there was early booking for antenatal care, permitting identification of pre-eclampsia and institution of appropriate therapy. Obstructed labor is one of the most common preventable causes of maternal and perinatal morbidity and mortality in developing countries. Its occurrence is regarded as a sign of poor level of obstetric practice in any environment because obstructed labor is due to mechanical difficulties in labor, which take place where access to proper obstetric care might not available or utilized as seen in this study.

Emphasis on antenatal care and early presentation in hospital when in labor will go a long way to reduce the incidence of obstructed labor. Maternal mortality from CS has substantially reduced in developed and even in developing countries to the extent that there may not be a single maternal mortality in several thousands of CS. Unbooked patients present late with complications making surgical intervention inevitable because of fetal distress and prolonged obstructed labor with attendant high perinatal morbidity. Interventions aimed at reducing maternal and perinatal morbidity and mortality associated with CS include auditing of the rates, Indications for and associated health outcomes.

5. Conclusion

This study demonstrated that Previous LSCS, Cephalo-pelvic disproportion, fetal distress and Oligohydromnios were the commonest indications for caesarean section. Lack of antenatal care and late presentation are also risks for maternal morbidity and altered fetal outcome. Emphasis on antenatal care, identification of high risks cases and education of the populace about supervised pregnancy and delivery will help reduce maternal morbidity and mortality including fetal mortality. Lack of antenatal care and late presentation in labor are among the predisposing factors to maternal deaths.

Changing trends and changing indications are very well can be seen from the study suggesting that **"Once a cesarean always a cesarean"** is what we seem to achieve in near future.

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