Original Article

Tackling Unmet Obstetric Needs of Patients Undergoing Caesarean Sections in Peripheral Settings

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Abstract

Objective: to analyze the factors responsible for immediate post-operative (PO) complications after caesarean section (CS) performed in peripheral settings leading to referral to Holy Family Hospital, Rwp, Dept of Obs/Gynae Unit-II.

Study Design and Setting: a prospective observational study was carried out in Holy Family Hospital, Dept of Obs/Gynae Unit-II. Over a period of one year i.e. 2012. All patients referred to Holy Family Hospital with complications in early post-operative period after caesarean sections were included in this study.

Methodology: thirteen patients referred to Obs/Gynae Unit-II in emergency were included in our study. A detailed proforma including history, examination, investigations, source and reasons of referral, indication, timing, place and competency of doctor performing the CS, interval between CS and referral and maternal condition on reaching the hospital were noted. Maternal and neonatal outcome after management in hospital was noted.

Results: out of a total of 13 patients, 31% were managed conservatively, 15.3% required evacuation of retained products of conception 15% needed re-operation. One patient had peripartum hysterectomy. 15% patients died during the course of management. One patient was received dead i.e. 7.6% making a mortality of 31%.

Conclusion: referral rate to tertiary care hospital after CS is rising continuously. CSs carried out in compromised facilities by unskilled / nonprofessionals without any strong indication are a major cause for PO complications. Moreover, no proper referral system and no prior information leads to compromised

Authorship Contribution: [1]Planned the study, collected the data, conducted the data analysis, contributed to the interpretation of the results with their critical comments. [2]Supervised and assisted in every step. Both authors accept the responsibility for the article in its present form. Both authors read and approved the final manuscript

facilities for these serious patients. Delay in referral is also a big contributory factor for adverse maternal and perinatal outcomes. There is an urgent need of provision of efficient referral system along with 24 hours emergency cover. Obstetric care system with alert transportation should be readily available to women in need.

Key words: postoperative, Caesarean section, Maternal outcome.

Introduction

We are striving nowadays to achieve the millemium development goal of reducing the maternal mortality by three quarter by the year 2015.[1]

Pregnancy is a physiological process and not a disease and maternal mortality due to it, is almost always preventable. However almost half a million women die every year worldwide due to pregnancy related complications.[2]

Ninety to ninety five percent contribution is from the developing countries and it varies from 300 to 1,000 as compared to 2.9 in the industrialized world.[3] Showing such an enormous difference.

According to latest WHO and UNICEF statistics, Pakistan's maternal mortality rate is approximately 260/100,000 live births, but actually it is much more because of lack of registration of deaths with indetermined causes of death in the majority.[4]

Ensuring quality health care and quick and efficient maternal and child health facilities is a prerequisite for reduction of morbidity and mortality among these susceptible groups of the population. A large number of maternal deaths can be prevented if the high risk factors are anticipated.

Although lack of trained birth attendants, lack of education, low status of women in society, poverty and delay in seeking medical treatment in cases of obstetric emergencies are the key factors contributing towards the adverse maternal and perinatal outcomes.[5] Nowadays with the increasing number of specialists in our country and the money minting approach of some unskilled professionals many unnecessary CSs in compromised facility are being carried out in our community. This is because there is no effective government policy and procedure to investigate and check these mal practices.

A CS is usually carried out to save the life of the mother or the baby which may be at risk while undergoing a vaginal delivery. A caesarean is a major operation and UK NHS declared that the "The case fatality rate is 6 times that for vaginal delivery and even for elective CS it's rate is 3 times as great".[6] Thus whenever it is decided to perform this major operation it's associated mortality should be kept in mind and should be taken seriously by all involved. WHO has officially withdrawn its previous recommendation of a 15% CS rate in June, 2011. Their official statement reads "There is no empirical for an optimum percentage. What matters most is that all women who need CS received them".

However, there are multiple reasons behind the rising CS rate i.e. improved technology to detect pre birth distress, malpractice because of higher cost of CS compared to regular birth, casual attitude towards surgery,[7] variation in practice style and limited awareness of harms that are more likely with CS.[8]

Provision of quality health care and effective referrals services to mothers and their children is a prerequisite for reduction of morbidity and mortality among these vulnerable groups of the population.

Most maternal deaths are preventable if the complications are diagnosed and managed effectively in time.

The main aim of this study was to highlight the maternal morbidity and mortality associated with high risk CS being carried out in peripheral settings and their delayed referrals.

Methodology

A prospective observational study was carried out in Holy Family Hospital over a period of one year i.e. 2012. Permission was obtained from institutional review board.

All patients referred to Holy Family Hospital with complications in early post-operative period i.e. first 48 hours after CS were included in this study. However two patients with complications and with delayed referral were also included. After informed consent, a detailed proforma including history, examination, investigations, source and reasons of referral, indication, timing, place and competency of doctor performing the CS, interval between CS and referral and maternal condition on reaching the hospital were noted. The type of management carried out in the hospital included. Conservative management in 4(31%) cases, Evacuation of RPOC in 2(15.3%), Operative drainage of sub-rectal haematoma, Removal of pus+ ERPC and Peripartum hysterectomy in one patient each, while 4(31%) cases died. Maternal outcome after management in hospital was also noted. Neonatal outcome was documented.

Results

Thirteen patients were referred to Gynae Unit-II Holy Family Hospital in early post-operative period after CS with some complication(s). Primary PPH and sepsis were the main causes of referral i.e. 4(31%) patients. Severe anemia with DIC was seen in 3(23%) patient. Eclampsia was the reason of referral in 2(15.3%) of patients (Table I).

Table I. Reason for Referral (n=13)

Anaemia + DIC	03	23%
Primary PPH	04	31%
Sepsis	04	31%
Eclampsia	02	15.3

Table II shows that most of the patients reached the hospital within 12 hours of CS i.e. 7 (54%), 1 (7.6%) reached within 24 hours however 5 (38%) patients came to hospital after 24 hours.

Table II. Time Interval Between Cs And Admission In Hospital (n=13)

Time Duration	No. of Patients	Percentage
Within 12 hours	07	54%
12 -24 hours	01	7.6%
After 24 hours	05	38.4%

Reason for delay was failure to identify warning signs of seriousness of patient's condition by medical personnel. Secondly there was failure on the part of the surgeon to sensitize the relatives about the gravity of the situation, may be to lessen the blame of the major operation being carried out in compromised facilities.

Indications of CS are shown in Table III. Five (38.4%) were operated for foetal distress. Whereas 7 (54%) very high risk patient i.e. placenta praevia with previous two scars, multiple pregnancy and severe

pre-eclampsia, were operated in the peripheral settings with limited facilities.

Table III. Indications For CS (n=13)

Indications	No. of Patients	Percentage
Foetal distress	05	38.4%
Abruptio Pl+IUFD	01	7.6%
Transverse Lie + Abruptio Placentae	01	7.6%
Twin Pregnancy	01	7.6%
Pre-Eclampsia	01	7.6%
Placenta Previa + Previous II Scar	01	7.6%
Previous III Scars + Pre-Eclampsia	01	7.6%
Obstructed Labour	01	7.6%
Hydrocephalous Baby	01	7.6%

One (7.6%) maternal death occurred due to PPH after CS for placenta praevia and previous two scars. One (7.6%) occurred due to septic shock and DIC and 1 (7.6%) was due to irreversible complications of postnatal eclampsia. One patient was received dead in gynae ER and cause of death could not be ascertained.

Table IV shows the places from where the patients were referred. Most of the referrals were made after CS in a private setting 10(76%) and 3(23%) were operated in DHQ/THQ hospital and were then referred.

Alive babies were delivered in 8 (61%) of patients, CS was conducted for dead babies in 2 (15.3%), fresh still born babies were delivered in 2 (15.3%) patients, early neonatal death occurred in 1 (7.6%) of the patients. The baby had marked hydrocephalus.

Table IV. Place from where the patients were referred (n=13)

Place of Referral	No. of Patients	Percentage
Mianwali	01	7.6%
Attock	03	23%
Rawalpindi	01	7.6%
Hasanabdal	01	7.6%
Chakwal + Talagang	03	23%
Islamabad	01	7.6%
Pindigheb	01	7.6%
Azad Kashmir	01	7.6%
Fateh Jang	01	7.6%

Discussion

Decision of under taking a CS should be by a skilled obstetrician but unfortunately due to lack of skilled obstetricians in rural areas most of the CSs are decided and undertaken by general surgeons.

Statistics show that among the women who die of pregnancy related causes 25% die during the antenatal period, 16% die in the intrapartum period and 61% die postnataly with the majority of deaths occurring within one week. Therefore it is obvious that almost 75% of all the maternal deaths are related directly or indirectly with the quality of care provided by the health facility. Delivery and the first week after it, is the most critical stage for every pregnancy and this is the time when the quality health care facilities matter.[10] The ever increasing levels of maternal mortality in the developing world has led to the recent interest in the assessment of the quality of reproductive health services.

Health care professionals all over the world are looking for ways and means to prevent maternal mortality by ensuring the provision of quality health services.

The other cause affecting maternal prognosis is the

time factor from the surgery to admission in hospital. In this study 8 (61%) had interval of 12-24 hours and 4 (31%) of the patients arrived in emergency after 24 hours. Patients who reached early had a better outcome as compared to those who had a delayed arrival.[11] Reasons for delay were lack of understanding the seriousness of patient's condition and financial constraints. The three delays which play an important part in maternal mortality are delay in decision making, delay in transportation and delay of care within health institution. [12] However in our study some of the delays were due to improper guidance of the patient.

Regarding referral the question arises that who should be referred? Should it be only the women with manifest obstetric complications or is there still room for elective referral in anticipation, due to high risk factors in certain cases. On the basis of a variety of studies the following basic maternal and perinatal indications for elective referral can be highlighted i.e. previous CS, hypertension in pregnancy, placenta praevia, severe maternal anaemia, breech presentation, transverse lie and multiple gestation. [13-17] As seen by our study deviation from standards was found in majority of indications for CS done elsewhere.

The inference drawn from our study is that pregnancy should be made as safe as possible by providing an organized and well planed target oriented antenatal care. Proper and timely referral of high risk patients to an appropriate health care facility is a major contributing factor for an uneventful delivery. Limitations of this study were the improper documentation by the surgeons before referral as well as the small number of cases.

Conclusion

High risk CS should not be taken lightly. The complications should be anticipated and referral should be in the antenatal period. Moreover the relatives must be sensitized about the situation to prevent maternal morbidity and mortality. Death in pregnancy and labour does not occur suddenly. Timely recognition of the problem proper referral and skilled care at health facilities will help a lot to bring down the very high maternal mortality rate in our country. An accurate assessment of the causes of rising maternal mortality rate will help in monitoring of progress towards the Millemium Development Goal-5[14]. This will help the government in improving its policies in the right direction.

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