Original Article

Caesarean Birth

An Analysis of Caesarean Birth in A Private Teaching Hospital

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ABSTRACT

Objective: The objective of this study was to analysis the Caesarean Birth in Private Teaching Hospital.

Study Design: Retrospective study

Place and Duration of Study: This study was carried out at the Department of Gynae /Obst Alkhidmat Teaching Mansoorah Hospital, Lahore affiliated with University College of Medicine and Dentistry, Lahore over a period of 1 year from April 2012 to March 2013.

Materials and Methods: The study was carried out to analysis the indications and to assess the maternal mortality and mortality as well as fetal outcome after C/S. The frequency of caesarean section during the study period was about 46%. Indications included, repeat caesarean (38.21%), failed inductions (19.9%), fetal distress (15.6%), Ceaphaloplevic disproportions (7.6%) breech presentation (6.36%), APH and PIH (4.7%), Twins and mal presentations (3.82%) and other (3.66%).

Results: Out of 628 patients (79.62%) were booked patients while (51.6%) patients had elective cesarean section. Anaemia, UTI,PPH and wound sepsis were common maternal complications. Two patients 0.31% died due to complications of surgery or anaesthesia. (97.29%) babies were born alive, (1.43%) were IUD either fresh or macerated while only(1.27%) babies died in the early neonatal period. Although caesarean section rate i.e.46.38% is quite high in our hospital but this is not a true caesarean section rate for a specific population. Majority of the patients who underwent C/s were booked, belonging to educated middle class families having awareness of the complications that may occur during trial of labour.

Conclusion: Provision of adequate antenatal health services timely identification of high risk cases use of electronic fetal monitoring; involvement of senior, skilled and experienced personnel in the management of obstetrical emergencies are responsible for the apparently higher rate of caesarean section. In order to reduce C/S rate frequency of trial of labor must be increased with the goal of vaginal delivery but without compromising maternal and fetal health.

Key Words: Caesarean Section, Caesarean Section rate, mortality, morbidity APH, PIH and C/S.

INTRODUCTION

Caesarean section is a major obstetrical operation. Caesarean section rate was initially very low i.e. about 5% in 1965 which rose to 20-25% in 1985 in developed countries[1]. In a recent study in USA, more than 30% birth occur by caesarean delivery[2]. The rate of caesarean section increased 7% from 2001 to 2002 upto 26.1% of all US births and rising further to 29% in 2004, an increase of approximately 40% since 1996[3]. Another study by Hamilton, et al, in US documented 32.2% rate of C/S in 2010-2011[4]. Similar situation arose in developing countries in the last two decades, where there is tremendous increase in the rate of caesarean section. In a study from Nigeria 34.6% and Italy 32.9% rates are documented[3]. In a study from Multan 51.43% rate is observed, while in a study from Quetta 46.38% and Karachi 28% CSR is documented[5-7].

Major obstetrical medication of the caesarean section include, previous LSCS, failed inductions, Fetal distress, CPD, breech presentation and APH, PIH. Specific literate population, increasing awareness regarding health related problems, provisions of adequate antenatal health services, timely identification of high risk cases use of electronic fetal monitoring and above all involvement of skilled and experienced personnel in the management of obstetrical emergencies are responsible for apparently high rate of caesarean section.

The patients with previous scar are difficult to manage during pregnancy and labor. However, women of low socio economic status with poverty and illiteracy with previous caesarean section try to avoid the hospital in subsequent pregnancy and prefer to stay at home at the disposal of untrained and unskilled traditional birth attendants. But the patients coming to this hospital belong to educated middle class families were aware of the complications thus majority of them were booked. In USA 20-40% of the women undergo repeat LSCS due to previous caesarean[2]. Another study suggested that out 9 of 10 women with previous C/S are having repeat C/S in the United States[8]. If the high rate of caesarean section is to be lowered the no of elective procedure must be reduced by increasing the frequency of trial of labor with the goal of vaginal delivery[9]. The trial of labor is a reasonable option for many pregnant women with prior one LS,CS[10].

MATERIALS AND METHODS

The study was carried out to find out the frequency, indications, to assess maternal mortality and morbidity as wellas fetal morbidity and mortality over a period of one year from April 2012 to March 2013 at the department of obstetrics and Gynecology Alkhidmat teaching Mansoorah hospital Lahore affiliated with university college of medicine and dentistry, Lahore. This Hospital receives patient from the city as well as from the neighboring rural areas. Total no of deliveries during the study period were 1354 out of which 628 patients underwent caesarean section.

This was a retrospective study the source of information was the record of labor room, operation theater, antenatal and post natal wards. This record provided the information that whether the procedure was elective or emergency, patient was booked or non booked, what was the indication of caesarean section, fetal outcome as well as maternal mortality and morbidity.

RESULTS

Total no of deliveries during 1 yr. study period i.e. from April 2012 to March 2013 were 1354 at Alkhidmat Teaching Mansoorah Hospital Lahore. Out of 1354 patients 628 (46.38%) underwent caesarean section The results are shown in the tables.

Table No.1: Elective caesarean versus emergency caesarean section. No=628

Sr. No.	Type of C/S	No of cases	Percentage
1	No of Electives c/s	324	51.60%
2	No of emergency c/s	304	48.40%
	Total:	628	100%

Out of 628 patients 324 (51.6%) had elective C/S while 304 (48.40%) had emergency C/S out of 628 patients 500 (79.62%) had regular antenatal checkup.

Table No.2: Indications of caesarean section n=:628

S.No	Indications	Numbers	Percentage
1	Previous LSCS	240	38.2%
2	Failed induction	125	19.9%
3	Fetal Distress	98	15.6%
4	Cephalo pelvic disproportion	48	7.6%
5	Breech Presentation	40	6.36%
6	APH+PIH	30	4.7%
7	Mal presentation & Twins	24	3.82%
8	Others	23	3.66%

Repeat caesarean section, failed induction Fetal distress & CPD, were the common indications for Caesarean delivery.

Table No.3: Age of the patient n=:628

Maternal Age (Years)	No of patients	Percentage
Below 20 Years	81	9.72%
20-25 yrs	250	41.4%
26-30 yrs	280	32.6%
31-35 yrs	60	10.35%
Above 35	37	5.89%

Age of the women in the study population ranged from 18 years to 40 years. Maximum no of patients 280(32.6%) were between 26-30 years of age.

Table No.4: Parity of the patients n=628

Parity	No of Patients	Percentage
Primigravida	232	36.95%
1-2	264	42.03%
3-4	113	17.99%
5-6	14	2.23%
Above 6	5	0.80%

Parity of study population ranged from nultipara to para 8, highest number of the patients who underwent caesarean section had 1-2 children.

The perinatal mortality during the study period was 27/1000 births i.e. 611(97.29%) babies were born alive. Only 8 babies (1.27%) were born alive and died afterwards either because of prematurity or some congenital abnormality.

Out of 628 patients 1 patient (0.15%) had caesarean hysterectomy because of placenta accreta. 2 Patients (0.31%) died due to complications of surgery and / or anesthesia. Other maternal complications were anaemia 23 (3.6%) wound sepsis 15(2.38%) UTI 15(2.38%) and PPH 5(0.79%)

DISCUSSION

In our study the frequency of Caesarean section was 46.38% it is quite consistent with another study done in tertiary care hospital, Multan i.e. 51.43%[5] In England and Wales the figure is about 22%(11). Maximum No of patients the fell in 26-30 years age group. But majority of patients who underwent Caesarean section had 1-2 children. Most of our patients belonged to literate middle class families and they used to come for regular antenatal visits. In a study from South Korea it is stated that higher Caesarean section are prevalent in patients where there is higher maternal education and residence in big cities[12]. In another study[13,14] it was stated that 5-40 % higher CSR in upper social class and 20%Caesarean section rates among educated women were observed.

The ratio between elective 51.6% and emergency (48.40%) operations are almost similar to a study from UK[15] which quoted 52% elective Vs 48% emergency but differ markedly from other studies conducted at

tertiary care teaching hospital which stated elective 17% and emergency 85% in a study conducted at tertiary care hospital. Quetta[6]. The difference in the studies of private teaching hospital and tertiary care Government hospital is because of the fact that women who land in Government teaching care hospitals usually belong to low socio economic class mostly illiterate. More than 80% deliveries are conducted by untrained or trained TBA's .Thus most of the time complicated pregnancies are brought to the hospital. In those situations both mother and baby are in a moribund condition. Thus rates of emergency Caesarean section are high in Govt. set up[16]. All complications of Caesarean section are more likely and more severe if it is done as an emergency after a failed attempt at vaginal delivery rather than as a planned operation[17]. Repeat C/S was the commonest indication i.e. 38.3% of caesarean section. If rate of C/s is to be reduced, both 1st C/S as well as repeat C/S must be reduced. According to American pregnancy association 90% of the women who have undergone caesarean deliveries are candidate for vaginal birth after caesarean[17]. According to a Wikipedia[18] trial of labor is a reasonable option for many pregnant women with one prior low transverse incision[10]. There is emerging evidence of serious harms relating to multiple cesarean[14]. American college of obstetrician and Gynecologist ACOG suggests attempting a vaginal birth after Caesarean (VBAC) is a safe and appropriate choice for most women who have had a prior Caesarean delivery[20]. About 0.15% patients had Caesarean hysterectomy because of placenta accrete, 2 patients (0.31%) died due to complications of surgery and /or anaesthesia.

In our studyperinatal mortality during one year period was 27/1000 births i.e. 611(97.29%) babies were born alive. Only 8 babies (1.27%) were born alive and died afterwards either because of prematurity or some congenital abnormality. Generally Caesarean section is considered a relatively safe option for the fetus[19,14] However, perinatal mortality depends upon the indications for C/S & gestational age of the fetus.

CONCLUSION

Significant reduction in the CSR can be achieved by adapting the policy of trial of labour after previous one caesarean section, active management of labour, adapting the policy of external cephalic version in selected cases and selective vaginal breech delivery. Proper counseling of the patients at the time of 1st caesarean regarding the contraception, significance of proper antenatal checkups during next pregnancy and briefly explaining the complications that can occur in the subsequent pregnancy and labour because of the presence of previous uterine scar.

Improvement of facilities at primary and secondary health care level, efficient referral chain, last but not the least increasing the awareness of the illiterate general population of Pakistan may decrease the current high CSR and reduce the maternal and fetal morbidity& mortality, by early seeking of the health care facility.

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