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Original Research Article

Maternal and fetal outcomes following the trial of vaginal delivery and elective repeat caesarean section in term pregnancy with one previous lower segment caesarean section in Dr. Baba Saheb Ambedkar Hospital: a prospective controlled study

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ABSTRACT

Background: Before 1970s, the phrase "once a caesarean, always a caesarean" was a common norm. Now this phrase has been changed to "once a caesarean, always an institutional delivery".
Methods: This prospective controlled study was carried out in department of obstetrics and gynaecology, Dr. Baba Saheb Ambedkar Medical College and Hospital, Rohini, Delhi for a period of 7 months (October 19 to April 2020) and included 200 gravid women with previous one lower segment caesarean section (LSCS). The ethical committee approval for the study was taken.
Results: The success rate of trial of labour after caesarean (TOLAC) in our study was 67%. It was concluded from this study that the percentage of woman having complications were maximum in failed TOLAC patients which was 69.70% followed by patients undergoing elective repeat caesarean delivery (ERCD) which was 59% followed by women having successful VBAC which was 8.96%. The percentage of neonate having complications were maximum in neonate of failed TOLAC patients which was 27.27% followed by neonate of patients undergoing ERCD which was 21% followed by neonate of women having successful VBAC which was 5.97%.
Conclusions: TOLAC for a second delivery is a much-needed feasible option in developing countries to reduce the cost and morbidities of repeat caesarean deliveries.

Keywords: Elective repeat caesarean delivery, Elective repeat caesarean section, Lower segment caesarean section, Trial of labour, Trial of labour after caesarean, Vaginal birth after caesarean

INTRODUCTION

Caesarean section is the most common major operation performed on a healthy woman. Primary caesarean sections (CS) are on the increasing rate worldwide. Previous caesarean delivery became an ever-increasing indication of caesarean birth.

The use of the classical longitudinal uterine incision began to decline after the low transverse uterine incision which was pioneered by Kerr in the mid-1920s.[1] It was found that the risk of uterine rupture during labour following a low transverse caesarean uterine scar was approximately 10 times lower than that of classical caesarean scar. In 1963, Douglas et al documented the risk of uterine rupture during trial of labour after previous caesarean section to be 0.17%.[2] Between the 1960s and 1980s, several studies concluded that vaginal birth after caesarean (VBAC) was a reasonable option.[3]

Guise et al reviewed 568 publications on VBAC versus ERCD and reported that successful VBAC is more effective, less expensive, and had the lowest mortality compared to ERCD. It was concluded that the additional

risk of perinatal death from attempted VBAC was 1.4 per 10,000 (95% CI 0-9.8), and in only 5% of uterine ruptures did the baby die. This means that 7,142 ERCD would have to be performed to prevent one baby death.[4]

The objective of this study was to compare maternal and neonatal outcomes in patients undergoing elective repeat caesarean section to patients undergoing successful or failed trial of labour in women with previous one LSCS.

METHODS

This prospective controlled study included 200 pregnant women with full term pregnancy and history of previous one lower segment caesarean section, admitted in department of obstetrics and gynaecology, Dr. Baba Saheb Ambedkar Hospital, New Delhi. These patients were divided into two groups. 100 patients were in group 1 who had opted for TOLAC while 100 patients were in group 2 who had opted for ERCD. The study was conducted for a period of 7 months (October 2019 to April 2020).

Inclusion criteria

All pregnant women at term (37-40 weeks of pregnancy) with interconception interval >2 years with: a) single prior lower segment caesarean section for non-recurrent cause (fetal distress, placenta previa, post-term pregnancy, failed induction, malpresentation etc.), b) single live fetus with cephalic presentation and no congenital anomaly (confirmed by ultrasonography), c) clinically estimated fetal weight ≤3.5 kg, d) adequate pelvis on clinical assessment, e) hemoglobin at admission is ≥8 gm/dl.

Exclusion criteria

All pregnant women at term (37-40 weeks of pregnancy) with one or above of following: a) interconception interval ≤ 2 years, b) previous upper segment caesarean section, c) previous myomectomy (previous history of other abdominal surgeries like appendectomy, cholecystectomy etc. is not included in exclusion criteria), d) placental abnormalities like placenta previa, placental abruption, vasa previa etc., e) severe medical disorders in mother (heart disease, kidney disease, uncontrolled hypertension, diabetes mellitus, PIH, etc.), f) intrauterine growth restriction, g) estimated fetal weight >3.5 kg, h) presence of maternal or fetal compromise (antepartum hemorrhage, fetal distress, etc.), i) refusal to participate in study, j) hemoglobin at admission ≤8 gm/dl, k) patient having previous VBAC.

Methodology

All enrolled population obtained after applying inclusion and exclusion criteria to the eligible population were counselled in antenatal clinic and at time of admission in labour room about benefits and harm of TOLAC and ERCD. According to patient preference they were divided into two group, patients opting for TOLAC and patient for ERCD.

For our study, a sample size of 200 patients (100 patients in each group) was taken. First group consisted of eligible population who went into spontaneous labour till 40 completed weeks of gestation and opted for TOLAC. As per hospital protocol induction of labour was not done for TOLAC. Second group consisted of patients who had opted for ERCD. Patients who went into spontaneous labour and had chosen for caesarean section were included in ERCD group. Such patients had undergone elective caesarean section beyond 39 weeks of gestation as per Royal College of Obstetrician and Gynaecologist guidelines.[4]

At the time of admission patient were briefed about the nature of the study, mode of delivery, details about the TOLAC, ERCD and a written informed consent was obtained.

Demographic data like age, BMI, history of previous pregnancy such as interconception interval, indications for previous LSCS, place of previous LSCS and history of previous normal delivery was noted. Information regarding current pregnancy like gravida, parity, gestational age and any associated maternal medical history was obtained through an interview and recorded on predesigned and pretested proforma.

The participants were examined for their general health (weight, height, pallor, pedal edema, pulse rate, blood pressure etc.) and obstetric parameters that is; lie, presentation, position of the fetus, fetal heart rate and scar tenderness. Vaginal examination was done and adequacy of pelvis was noted.

Patients who had gone into spontaneous onset of labour and opted for TOLAC (first group) were hourly monitored for vital parameters, i.e. blood pressure, pulse, temperature and respiratory rate. These women were also monitored for uterine contractions with close watch for early recognition of scar dehiscence by identifying maternal tachycardia in absence of vaginal bleeding, scar tenderness and fetal heart rate alterations. Progress of labour was monitored with the help of partograph (WHO partograph).[5]

For purpose of this study failed TOLAC was considered if during course of labour partograph crosses action line, any maternal or fetal compromise was noted or any sign of scar dehiscence like maternal tachycardia or scar tenderness was seen. In patients who had failure of trial of labour, the patient were immediately taken for emergency caesarean. Maternal and neonatal outcome of such patients was noted. Such patients were included in TOLAC group.

Monitoring of patients who had gone into spontaneous labour opting for VBAC was done, I) till successful trial of labour or II) emergency caesarean section for all unsuccessful trial. Postpartum fetal wellbeing was

assessed and need for neonatal intensive care unit (NICU) was evaluated.

The success of VBAC was calculated by the percentage of vaginal delivery. Data was analysed using variables like maternal age, Body mass index, Bishop's score on admission, type of onset of labour, perinatal outcome, maternal complications.

Second group consisted of patients opting for ERCD. Preanesthetic checkup (PAC) was done for such patients and they were taken for ERCD after 39 completed weeks of gestation.

In both of the study groups, the maternal factors that were taken into consideration for assessing maternal outcome were postpartum haemorrhage, blood transfusion, intraoperative surgical complications (including scar dehiscence), fever, wound infection, urinary tract infection, obstetric hysterectomy, uterine rupture, duration of stay in hospital of >5 days, initiation of early breast feeding and maternal mortality. Subjects were then followed and their outcomes assessed till they were discharged from the hospital.

Neonatal outcomes that were taken into consideration was need of neonatal resuscitation at birth, NICU admission, meconium-stained amniotic fluid, birth trauma, hypoglycemia, neonatal sepsis, transient tachypnea of neoborn, neonatal seizure and perinatal death. The neonates were followed up during their hospital stay and the causes of NICU admission was evaluated till the neonate was discharged from paediatric ward. The neonate records from the paediatric department were followed.

Data analysis

The data was entered in MS Excel spreadsheet and analysis was done using Statistical Package for Social Sciences (SPSS) version 21.0.

RESULTS

Intraoperative surgical complications in present study were 2.7 times more in patient going of ERCD than patients going for TOLAC (Table 1). The requirement of blood transfusion was 2.7 times more in patient going of ERCD than patients going for TOLAC. Occurrence of urinary tract infection was 4.3 times more in patient going of ERCD than patients going for TOLAC. Almost all of the patients undergoing ERCD had at least 5 days of hospital stay which was much more than patients of TOLAC where 66% patients had <5 days of hospital stay. Initiation of early breast feeding was more in patients of TOLAC than ERCD patients (Table 1).

Table 1: Comparison of maternal outcome between ERCD and TOLAC.

Maternal outcome	ERCD (n=100)	TOLAC (n=100)	Total	P value	Test performed
Intraoperative surgical complication	41 (41%)	15 (15%)	56 (28%)	0.0001	Chi square test
Bladder adhesion	20 (20.00%)	8 (8.00%)	28 (14.00%)	0.025	Chi square test
Other adhesion	12 (12.00%)	1 (1.00%)	13 (6.50%)	0.002	Fisher Exact test
Difficult delivery	6 (6.00%)	2 (2.00%)	8 (4.00%)	0.27	Fisher Exact test
Asymptomatic scar dehiscence	3 (3.00%)	4 (4.00%)	7 (3.50%)	1	Fisher Exact test
Post-partum hemorrhage	8 (8%)	11 (11%)	19 (9.50%)	0.23	Chi square test
Unit of blood transfusion	27 (27%)	11 (11%)	38 (19%)	0.004	Chi square test
Uterine rupture	0 (0%)	0 (0%)	0 (0%)	-	-
Fever	9 (9%)	3 (3%)	12 (6%)	0.134	Fisher Exact test
Wound infection	2 (2%)	1 (1%)	3 (1.50%)	1	Fisher Exact test
Urinary tract infection	13 (13%)	3 (3%)	16 (8%)	0.016	Fisher Exact test
Caesarean hysterectomy	0 (0%)	0 (0%)	0 (0%)	-	-
Duration of stay in hospital (>5 days)	97 (97%)	34 (34%)	131 (65.50%)	<0.0001	Fisher Exact test
Initiation of early breast feeding	73 (73%)	91 (91%)	164 (82%)	0.0009	Chi square test
Maternal mortality	0 (0%)	0 (0%)	0 (0%)	-	-

In our study it was seen that neonatal outcome was similar in neonate of TOLAC and ERCD group of patients (Table 2).

The patients who had failed TOLAC and were taken for emergency caesarean section, the incidence of postpartum haemorrhage was more as compared to ERCD patients (Table 3).

Neonate born through failed TOLAC and were taken for emergency caesarean section, the clinical outcome has no significant difference as compared to ERCD patients (Table 4).

Table 2: Comparison of neonatal outcome between ERCD and TOLAC.

Neonatal outcome	ERCD (n=100)	TOLAC (n=100)	Total	P value	Test performed
Need of neonatal resuscitation at birth	20 (20%)	11 (11%)	31 (15.50%)	0.079	Chi square test
NICU admission	9 (9%)	5 (5%)	14 (7%)	0.268	Chi square test
Meconium stained amniotic fluid	5 (5%)	5 (5%)	10 (5%)	1	Chi square test
Birth trauma	0 (0%)	0 (0%)	0 (0%)	-	-
Hypoglycemia	0 (0%)	0 (0%)	0 (0%)	-	-
Neonatal sepsis	0 (0%)	2 (2%)	2 (1%)	0.497	Fisher Exact test
Transient tachypnea of newborn	8 (8%)	2 (2%)	10 (5%)	0.100	Fisher Exact test
Neonatal seizure	0 (0%)	1 (1%)	1 (0.50%)	1	Fisher Exact test
Perinatal death	0 (0%)	0 (0%)	0 (0%)	No p value	-

Table 3: Comparison of maternal outcome between ERCD and emergency CS.

Maternal outcome	ERCD (n=100)	Emergency CS (n=33)	Total	P value	Test performed
Intraoperative surgical complication	41 (41%)	15 (45.45%)	56 (42.11%)	0.806	Chi square test
Bladder adhesion	20 (20.00%)	8 (24.24%)	28 (21.05%)	0.785	Chi square test
Other adhesion	12 (12.00%)	1 (3.03%)	13 (9.77%)	0.184	Fisher Exact test
Difficult delivery	6 (6.00%)	2 (6.06%)	8 (6.02%)	1	Fisher Exact test
Asymptomatic scar dehiscence	3 (3.00%)	4 (12.12%)	7 (5.26%)	0.063	Fisher Exact test
Post-partum hemorrhage	8 (8.00%)	7 (21.21%)	15 (11.28%)	0.037	Chi square test
Unit of blood transfusion	27 (27%)	9 (27.27%)	36 (27.07%)	0.976	Chi square test
Uterine rupture	0 (0%)	0 (0%)	0 (0%)	No p value	-
Fever	9 (9%)	3 (9.09%)	12 (9.02%)	1	Fisher Exact test
Wound infection	2 (2%)	1 (3.03%)	3 (2.26%)	1	Fisher Exact test
Urinary tract infection	13 (13%)	3 (9.09%)	16 (12.03%)	0.76	Fisher Exact test
Caesarean hysterectomy	0 (0%)	0 (0%)	0 (0%)	No p value	-
Duration of stay in hospital (>5 days)	97 (97%)	33 (100%)	130 (97.74%)	0.574	Fisher Exact test
Initiation of early breast feeding	73 (73%)	25 (75.76%)	98 (73.68%)	0.755	Chi square test
Maternal mortality	0 (0%)	0 (0%)	0 (0%)	No p value	-

Table 4: Comparison of neonatal outcome between ERCD and emergency CS.

Neonatal outcome	ERCD (n=100)	Emergency CS (n=33)	Total	P value	Test performed
Need of neonatal resuscitation at birth	20 (20%)	9 (27.27%)	29 (21.80%)	0.38	Chi square test
NICU admission	9 (9%)	4 (12.12%)	13 (9.77%)	0.73	Fisher Exact test
Meconium stained amniotic fluid	5 (5%)	4 (12.12%)	9 (6.77%)	0.22	Fisher Exact test
Birth trauma	0 (0%)	0 (0%)	0 (0%)	-	-
Hypoglycemia	0 (0%)	0 (0%)	0 (0%)	-	-
Neonatal sepsis	0 (0%)	2 (6.06%)	2 (1.50%)	0.06	Fisher Exact test
Transient tachypnea of newborn	8 (8.00%)	0 (0.00%)	8 (6.02%)	0.19	Fisher Exact test
Neonatal seizure	0 (0%)	1 (3.03%)	1 (0.75%)	0.24	Fisher Exact test
Perinatal death	0 (0%)	0 (0%)	0 (0%)	-	-

Table 5: Percentage of patients in each group having complications.

		ERCD	Emergency CS	Successful VBAC	Total	P value
Maternal complications	No	41 (41.00%)	10 (30.30%)	61 (91.04%)	112 (56.00%)	<0.0001
	Yes	59 (59.00%)	23 (69.70%)	6 (8.96%)	88 (44.00%)	
Total		100 (100.00%)	33 (100.00%)	67 (100.00%)	200 (100.00%)	

Table 6: Percentage of neonate in each group having complications.

		ERCD	Emergency CS	Successful VBAC	Total	P value
Neonatal complications	No	79 (79.00%)	24 (72.73%)	63 (94.03%)	166 (83.00%)	0.009
	Yes	21 (21.00%)	9 (27.27%)	4 (5.97%)	34 (17.00%)	
Total		100 (100.00%)	33 (100.00%)	67 (100.00%)	200 (100.00%)	

This study states that the percentage of woman having complications were maximum in failed TOLAC patients which was 69.70% followed by patients undergoing ERCD which was 59% followed by women having successful VBAC which is 8.96% (Table 5).

The percentage of neonate having complications were maximum in neonate of failed TOLAC patients which was 27.27% followed by neonate of patients undergoing ERCD which was 21% followed by neonate of women having successful VBAC which was 5.97% (Table 6).

DISCUSSION

Primary caesarean sections (CS) are on the increase worldwide. This means that increasing number of women with previous caesarean section(s) are seen antenatal for subsequent delivery. There is paucity of data especially in Indian patients about the benefits and harms of both forms of birth policies in patients of previous caesarean section

The success rate of TOLAC in this study was 67%. According to guidelines of ACOG regarding VBAC in 1999, the success rate of VBAC ranges between 60 to 80%.[6] In a study conducted in a tertiary care hospital in south India by George et al, the success rate of VBAC was 60%.[7] Sen et al conducted a study in North India and reported the rate of successful VBAC to be 63.5%.[8] Western literature reports comparable rates of successful VBAC, with the success rate ranging between 70% to 80%.[9-11] These studies used Prostaglandin E_2 gel and oxytocin for augmentation of labour which was not used in our study as intensive monitoring was not possible due to limited manpower, equipment and infrastructure in our setting. Patients of TOLAC (group 1) were taken for emergency caesarean section if any maternal or fetal complication had arisen during the course of labour.

In our study the incidence of postpartum haemorrhage (PPH) occurring in TOLAC patients was 11% while in ERCD group it was 8% whereas in study conducted by Tsai et al the incidence of PPH was 2.74% in TOLAC patients and 2.45% in ERCD patients.[12] In the metanalysis conducted by Yang et al it was seen that the incidence of PPH was comparable in TOLAC and ERCD group (p value =0.44).[13] This difference of increased PPH in TOLAC group in our study was due to patients landing in emergency caesarean section who have a greater tendency to go into PPH than ERCD patients.

Requirement of blood transfusion in TOLAC patients was 11% while in ERCD group it was 27% where as it was shown in the metanalysis conducted by Yang YZ et al the incidence of blood transfusion in TOLAC patients was 4.1% while in ERCD group it was 1%.[13] In a study conducted by Cahill et al the incidence of blood transfusion in TOLAC patients was 0.87% while in ERCD group it was 1.08%.[14] Greater incidence of blood transfusion was seen in ERCD patients of our study as most of Indian female are anemic due to nutritional deficiency and poor antenatal care. They need blood transfusion for hemoglobin build up for elective surgery and also for slight increase in bleeding during surgery.

Intraoperative surgical complications taken into consideration were asymptomatic scar dehiscence, bladder adhesions, other adhesions (omental, peritoneal, bowel adhesions), difficult delivery, and trauma to bladder or bowel, extension of incision till broad ligament or cervix. Incidence of Intraoperative surgical complications in TOLAC group (seen mainly due to failed TOLAC where patients were taken for emergency caesarean section) was 15% and in ERCD group it was 41%. However, in the study conducted by Loebel et al the incidence of intraoperative surgical complications in TOLAC group was 0.4% and ERCD group was 0.4%.[15]

In our study patient was said to have fever when they had axillary temperature >100.4°F in postpartum period. Incidence of fever and urinary tract infection (UTI) in patients of TOLAC group was 3% in each while that in patients of ERCD group it was 9%, 13% respectively. However, in the study done by Cahill et al the incidence of fever was 11.21% in TOLAC patients and 12.11% in ERCD patients.[14] Incidence of fever in ERCD group was comparable between my study and the reference study. In our study incidence of fever was comparable to incidence of UTI in both the groups so it can be said that UTI was main cause of fever in our study.

Wound infection occurring in patient of TOLAC group was 1% while in ERCD group it was 2%. This is similar to study conducted by Lobel et al where incidence of wound infection occurring in patient of TOLAC group was 2.5% while in ERCD group it was 2.3%.[15] It occurs due to poor nutritional status of patients that delay wound healing or poor personal hygiene that predisposes to infection.

In our study the average duration of stay in hospital was greater than 5 days in 34% of patients of TOLAC while it is 97% in patients of ERCD. The study conducted by Lobel

G et al average duration of stay in hospital in patient of TOLAC group was 2.02 days while in ERCD group it was 3.14 days.[15] Longer duration of stay is preferred in Indian scenario due to poor personal hygiene of patients and loss of follow up after discharge.

Early initiation of breast feeding was that the breastfeeding was started within one hour of delivery. Early initiation of breast feeding was started in 91% of patients of TOLAC group and 73% patients of ERCD group. Proportion of patients with early initiation of breast feeding was significantly higher in TOLAC patients than ERCD patients. The probable reason for this could be that postoperative pain and effect of spinal anesthesia hinders early breastfeeding in patients that had undergone caesarean section.

There had been no incidence of uterine rupture, caesarean hysterectomy or maternal death in our study. The study observed that incidence of intraoperative surgical complications, blood transfusion, urinary tract infection, duration of stay in hospital >5 days, was significantly higher in patient going for ERCD than patients opting for TOLAC. Proportion of patients with early initiation of breast feeding was significantly higher in TOLAC patients than ERCD patients.

Neonatal outcomes that were taken into consideration in this study was need of neonatal resuscitation at birth, NICU admission, transient tachypnea of neoborn, neonatal seizure, neonatal sepsis, meconium-stained amniotic fluid, birth trauma, hypoglycemia, and perinatal death.

In our study, the incidence of neonate that needed neonatal resuscitation at birth was 11% in neonate born to mother enrolled in TOLAC group while it was 20% in neonate born to mother enrolled in ERCD group. However, in the study conducted by Tsai HT et al the incidence of neonatal resuscitation was 1.37% in neonate born to mother enrolled in TOLAC group while it was not needed in neonate born to mother enrolled in ERCD group.[12] The criteria taken for neonatal resuscitation in reference study was not clear. In our study the neonate that were given oxygen support by hood were included in need of neonatal resuscitation. In our study need of neonatal resuscitation was more in both the groups as the temperature of labour room and operation theatre was not always constant and baby might land up in hypothermia.

In our study, the neonate that needed NICU admission at birth was 5% in neonate born to mother enrolled in TOLAC group while it was 9% in neonate born to mother enrolled in ERCD group. This was comparable to study conducted by Lobel et al where incidence NICU admission was 4.2% in neonate born to mother enrolled in TOLAC group while it was 5.6% in neonate born to mother enrolled in ERCD group.[15] However, in a study conducted by Tsai et al the incidence of NICU admission was 2.74% in neonate born to mother enrolled in TOLAC group while it was 1.96% in neonate born to mother enrolled in ERCD group.[12] The causes of NICU admission in my study was meconium stained amniotic fluid, neonatal sepsis, transient tachypnea of newborn (TTN) and neonatal seizure.

In our study neonate suffering from transient tachypnea of newborn (TTN) at birth was 2% in neonate born to mother enrolled in TOLAC group while it was 8% in neonate born to mother enrolled in ERCD group. However, in the study conducted by Loebel et al the incidence of TTN was 1.9% in neonate born to in the mother enrolled in TOLAC group while it was 4% in neonate born to mother enrolled in ERCD group.[15] The incidence of TTN in TOLAC group of our study and reference study was comparable. In study conducted by Sabol et al, incidence of TTN was 3.6% in TOLAC group and 4.2% in ERCD group.[16] The metacentric study conducted by Yang et al states that incidence of TTN was greater in neonate born to ERCD patients then neonate born to TOLAC patients (p=0.007).[13]

In our study neonate who had neonatal sepsis was 2% in neonate born to mother enrolled in TOLAC group while it was none in neonate born to mother enrolled in ERCD group. However, in the study conducted by Loebel et al, incidence neonatal sepsis was 2.7% in neonate born to mother enrolled in TOLAC group while it was 3.5% in neonate born to mother enrolled in ERCD group.[15] The incidence of neonatal sepsis in TOLAC group in our study and the reference study was comparable. The two neonate that had neonatal sepsis in our study were neonate of mother of TOLAC group who had emergency caesarean for prolong labour and second stage arrest.

In our study incidence of neonatal seizure was 1% in neonate born to mother enrolled in TOLAC group while it was none in neonate born to mother enrolled in ERCD group. However, in the study conducted by Crowther et al incidence of neonatal seizure was 0.1% in neonate born to mother enrolled in TOLAC group and 0.1% in neonate born to mother enrolled in ERCD group.[17] The neonate that had neonatal seizure in my study were neonate of mother of TOLAC group who had emergency caesarean for prolong labour and second stage arrest.

In our study the incidence of meconium-stained amniotic fluid (MSAF) was 5% in each of the two groups of neonates (TOLAC and ERCD group).

There had been no birth trauma, hypoglycemia, or perinatal death in our study.

The present study observed that there was no significant difference in neonatal outcome among both the groups.

In my study the percentage of woman having complications were maximum in failed TOLAC patients which was 69.70% followed by patients undergoing ERCD which was 59% followed by women having successful VBAC which was 8.96%.

In present study the percentage of neonate having complications were maximum in neonate of failed TOLAC patients which was 27.27% followed by neonate of patients undergoing ERCD which was 21% followed by neonate of women having successful VBAC which was 5.97%.

Our secondary objective was to assess maternal and fetal complications arising after failure of TOLAC. The patients of failed TOLAC were taken for emergency caesarean section. The maternal complications arising in such patients were intraoperative surgical complications in 45.45% of patients, postpartum haemorrhage occurring in 21.21% of patients, need of blood transfusion occurring in 27.27% of patients, postpartum fever was seen in 9.09% of patients, wound infection was seen in 3.03% of patients, urinary tract infection occurred in 9.09% of patients. All of these patients had at least 5 days of hospital stay.

The complications arising in neonate of mother that had emergency caesarean section done was that 27.27% of neonate needed neonatal resuscitation while 12.12% neonate were admitted in NICU. Meconium-stained liquor was present in 12.12% of neonate, neonatal sepsis occurred in 6.06% of patients while neonatal seizure occurred in 3.03% of neonate.

CONCLUSION

To conclude it can be said that due to worldwide increase in primary caesarean sections, increasing number of women with previous one caesarean section is seen antenatally for subsequent delivery. TOLAC for a second delivery is a much-needed feasible option in developing countries to reduce the cost and morbidities of repeat caesarean deliveries. There are extensive number of factors that has to be considered while evaluating maternal and neonatal risk in patients of TOLAC. So, meticulous patient selection, vigilant monitoring and better resources are needed to improve the success rate of TOLAC.

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