ORIGINAL ARTICLE

Frequency of Failed Trial of Labour and its Morbidity in Patients with Previous One Caesarean Birth

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ABSTRACT

Background: Increasing rates of primary caesarean section have led to an increase in the proportion of obstetric population who has prior caesarean delivery. These women may be offered planned trial of labor or elective repeat caesarean section in a subsequent pregnancy and majority of them may have an uncomplicated vaginal delivery.
Aim: To determine frequency of patients who failed trial of labor after one LSCS and maternal morbidity as a result of it, in a tertiary care hospital.
Methods: This descriptive case series comprised 275 patients was conducted in the Department of Gynaecology & Obstetrics, Unit-I, Services Hospital, Lahore over a period of six months from 15-05-2012 to 14-11-2012. Labor was monitored vigilantly. Emergency LSCS was planned immediately in case of arrest of labor, any symptomatic uterine dehiscence / rupture or any onset of distress to the fetus. These patients were noted for uterine dehiscence/rupture found as an intra-operative finding.
Results: In our study the mean age of the patients was 28.2±3.4 years. In the distribution of patients by complications, 14(5.1%) patients had scar dehiscence/rupture, 50(18.2%) patients had postpartum haemorrhage and 16(5.8%) patients had endometritis. There were 1(0.4%) patients had hysterectomy and 12(3.6%) patients had Blood transfusion >1 unit.
Conclusion: It is concluded from this study that failed trial of labor in women at term with prior cesarean is associated with increased maternal complications such as uterine dehiscence/rupture, PPH, endometeritis, hysterectomy and blood transfusions.
Keywords: Failed trial of labor, previous one caesarean birth, morbidity, vaginal birth after caesarean

INTRODUCTION

Planned vaginal birth after caesarean (VBAC) refers to any woman who has experienced a prior lower segment caesarean section and plans to deliver vaginally rather than by elective repeat caesarean section (ERCS)[1-4]. A meta analysis revealed that overall success rate of vaginal delivery in these patients is (73% range 68% to 77%).[5] A meta analysis done by Cristina Rossi & Vincenzo revealed that maternal complications occur less frequently in successful VBAC (3.1%) compared with failed trial of labor group (17%)[6].

The variables of significant predictive values are the Bishop's score, the size and shape of the maternal pelvis, a previous vaginal delivery, presence of any fetal distress, fetal weight and type of previous scar or uterus (i.e., whether a low or a high scar)[7].

The challenge for clinicians today is to provide women who desire TOL after caesarean birth, a more individualized risk assessment of uterine rupture, thereby enhancing success and optimizing outcome[8].

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PATIENTS AND METHODS

This descriptive case series comprised 275 patients was conducted in the Department of Gynaecology & Obstetrics, Unit-I, Services Hospital, Lahore over a period of six months from 15-05-2012 to 14-11-2012. All those patients with previous one LSCS at term who went into spontaneous labour and are decided for trial of labor after complete evaluation and vaginal delivery is not contraindicated were included. Patients in which LSCS was decided due to other reasons like PIH, gestational diabetes mellitus, heart and renal disease were excluded. Progress of labour was monitored according to partogram, vigilant fetal and maternal monitoring was continued. Emergency LSCS was planned immediately in case of arrest of labor, any symptomatic uterine dehiscence / rupture or any onset of distress to the fetus. These patients were noted for uterine dehiscence/rupture found as an intra-operative finding. Post operatively they were monitored for PPH, endometeritis and other variables like hysterectomy and blood transfusion. The data was analyzed by using SPSS version 18.

RESULTS

In our study the mean age of the patients was 28.2±3.4 years. There were 7(25.5%) patients in the

age range of 20-25 years, 139(50.5%) patients in the age range of 26-30 years, 62(22.5%) patients in the age range of 31-35 years and 4(1.5%) patients in the age range of 36-40 years (Table 1). The mean parity of the patients was 2.1±1.3. There were 196(71.3%) patients of parity range of 1-2 para, 62(22.5%) patients in the parity range of 3-4 and 17(6.2%) patients in the parity range of 5-6 (Table 2). In the distribution of patients by complications, there were 14(5.1%) patients had scar dehiscence/rupture, 50(18.2%) patients had postpartum haemorrhage and 16(5.8%) patients had endometritis (Table 3). In the distribution of patients by other complications, there were 1(0.4%) patients had hysterectomy and 12(3.6%) patients had blood transfusion >1 (Table 4).

Table 1: Distribution of patients by age

Age (Years)	n	%age
20-25	70	25.5
26-30	139	50.5
31-35	62	22.5
36-40	4	1.5
Mean±SD	28.2±3.4	

Table 2: Distribution of patients by parity

Parity	n	%age
1-2	196	71.3
3-4	62	22.5
5-6	17	6.2
Mean±SD	2.1±1.3	

Table 3: Distribution of patients by complications

Complications	n	%age
Scar dehiscence/rupture	14	5.1
Postpartum haemorrhage	50	18.2
Endometritis	16	5.8

Table 4: Distribution of patients by other complications

Other complications	n	%age
Hysterectomy	1	0.4
Blood transfusion >1	12	3.6

DISCUSSION

In developing countries such as Pakistan, the parity is high and restriction of family size is not generally accepted due to social, religious or psychological beliefs. Therefore, in Pakistan, the overall rate of caesarean section should be reduced by a sound indication for the first caesarean section and then encouragement for vaginal birth after a caesarean section to reduce operative morbidity and mortality. Current obstetric opinion is that the lower segment caesarean section is not a contraindication for the use of oxytocin for induction and augmentation of labor, however, the role of prostaglandin is controversial. The study concluded that induction of labor in women attempting vaginal birth after caesarean is associated with a significantly reduced rate of successful vaginal delivery and an increased risk of serious maternal morbidity[9].

The risk of major maternal complications has been reported to be almost twice as likely in women who underwent a trial of labor than in women who chose an elective repeat caesarean section. Rageth et al[10] disclosed an elevated risk of uterine rupture in patients who had a history of caesarean delivery and were undergoing a trial of labor versus elective repeat caesarean. In the literature to date, the overall risk of uterine rupture for women undergoing a trial of labor after caesarean delivery has been reported to be between 0.2% and 0.1%. Naef et al[11] retrospectively reviewed the delivery outcomes of 262 women with lower vertical uterine incisions over a 10-year period. Fifty-four percent experienced a trial of labor with 83% having a successful vaginal delivery rate. The uterine rupture rate was 1.1% (2/174) in the trial of labor group versus nil in the elective repeat caesarean group. No serious adverse sequelae were observed following uterine rupture.

Stone et al[12] studied 89 women with one previous caesarean section using 2mg intracervical prostaglandin E2 gel and reported a 66% vaginal delivery rate and a 2% uterine scar dehiscence rate (all asymptomatic). Del Valle et al[13] in a retrospective series also did not report any major maternal or perinatal complication. Recent reports on the use of misoprostol (Cytotec) in patients with a uterine scar suggest that there may be a much greater risk associated with induction in these women than has been previously observed. The study performed by Rageth et al[10] noted that complications, namely maternal febrile episodes, thromboembolic events, bleeding due to placenta previa, uterine rupture and perinatal mortality, were significantly frequent in the previous caesarean group. The post-caesarean group also showed 0.28% rate of peripartum hysterectomy.

In our study the mean age of the patients was 28.2±3.4 years. As compared with the study of Zill-e-Huma[14] the mean age of the patients was 29.3±5.4 years, which is comparable with our study.

In the present study the maternal complication of scar dehiscence/rupture was found in 5.1% of our patients. As compared with the study of El-Sayed et al[15] scar dehiscence/rupture was found in 4.4% patients and Hibbard et al[16] the scar dehiscence/rupture was found in 8.9% patients, which is comparable with the present study.

The current study showed that 18.2% patients had postpartum haemorrhage. As compared with the study of El-Sayed et al[15] scar dehiscence/rupture was found in 35.8% patients, which is much higher from our study.

This study showed that 5.8% patients had endometritis. As compared with the study of Hibbard et al[16] endometritis was found in 6.4% patients, which is comparable with our study.

Hysterectomy was done in 0.4% patients of the present study. El-Sayed et al[15] hysterectomy was performed in 0.5% patients and Hibbard et al[16] also reported hysterectomy rate was 0.5%, which is also comparable with our study.

In the present study, blood transfusion >1 unit was given to 3.6% patients. As compared with the study of El-Sayed et al[15] blood transfusion was done in 3% patients and Hibbard et al[16] also reported the blood transfusion in 3.9% patients, which is also comparable with our study.

CONCLUSION

It is concluded from this study that failed trial of labor in women at term with prior caesarean is associated with increased maternal complications such as uterine dehiscence/rupture, PPH, endometeritis, hysterectomy and blood transfusion.

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