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Original Research Article.

Outcome and Consequences of Uterine Rupture among Women with Prior Caesarean Section in Jalalabad Ragib Rabeya Medical College Hospital, Sylhet

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ABSTRACT

Introduction: Rupture uterus is an uncommon and frequently calamitous circumstance. It is connected with a high occurrence of fetal and maternal mortality and morbidity.

Objective: Our primary objective of this investigation is to assess results of uterine rupture among women with earlier cesarean section.

Method: This cross-sectional study was done at Jalalabad Ragib Rabeya Medical College Hospital, Sylhet from January 2016 February to 2019 February. All out 63 instances of ruptured uterus were recorded in this investigation and every one of the instances of ruptured uterus who were either conceded with complain or who developed it in medical clinic were incorporated into the examination.

Results: During the examination most events of ruptured uterus was the gestational age 37-40 weeks, (66.67%) and among 63 patients, most (65.08%) had no antenatal checkup. (34.92%) had unpredictable antenatal checkup. Likewise the rupture was bound to lower segment in the abdominal uterus.

Conclusion: Lack of antenatal care, misuse of oxytocin, and inappropriate counseling of patients with history of previous caesarian section for hospital delivery are the main causes for a ruptured uterus in this study.

Keywords: Antenatal Check-Up, Ruptured Uterus, Cesarean Section.

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INTRODUCTION

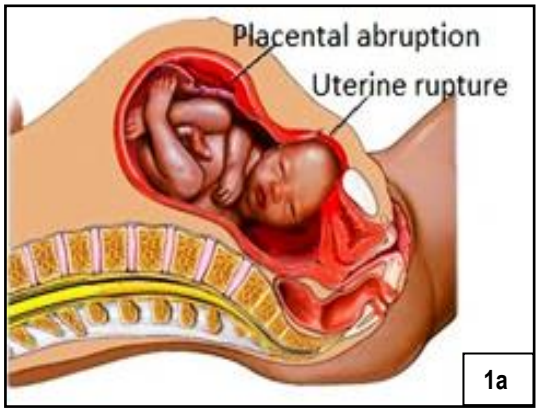
Uterine rupture is an uncommon yet genuine childbirth confusion that can happen during vaginal birth. It makes a mother's uterus tear so her child slips into her abdomen. This can cause extreme bleeding in the mother and can choke out the child. This condition influences under 1% of pregnant patients. It quite often happens in female with uterine scars from previous cesarean deliveries or other uterine surgeries. A woman's danger of uterine rupture increases with each cesarean section. A few components are known to build the danger of ruptured uterus. hazard elements incorporate vaginal birth after cesarean section (VBAC), obstructed labor, other uterine scars, induction of labor, trauma and so on. While ordinarily rupture happens during labor it might every so often happen prior in pregnancy.

Determination might be suspected dependent on a fast drop in the infant's heart rate during labor. Uterine dehiscence is a less extreme condition in which there is just incomplete separation of the old scar.[1,2]

Rupture during pregnancy is an uncommon event, though uterine scar dehiscence is an increasingly regular occasion. Because of absence of wellbeing training, unawareness and poverty related problems of women in Bangladesh; they don't go for regular antenatal checkup, leaning toward home conveyance by conventional midwives as opposed to coming to emergency department.

They are brought to emergency department after delayed dysfunctional labor when conventional birth attendant neglect to convey them, the outcome is an opportunity of rupture uterus and just as rupture of previous cesarean scar. High maternal mortality and morbidity is a result of poor maternal care, lacking financial and ecological condition, poor availability to wellbeing administrations and poor nutrition.[3]

Our fundamental objective of this investigation is to assess results of uterine rupture among ladies with prior cesarean section.



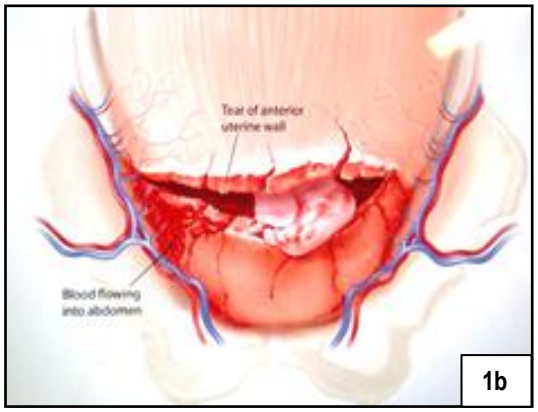


Figure 1a and1b: Uterine Rapture

OBJECTIVES

General Objective

To assess the outcomes of uterine rupture among women with prior caesarean section.

Specific Objective

- To identify the pattern of antenatal care of the pregnant patients
- To ascertain the etiology of ruptured uterus in scarred uterus.

METHODOLOGY

Study Type: The study is a cross-sectional type study.

Study Place and Period: This study was conducted at Jalalabad Ragib Rabeya Medical College Hospital in Sylhet from 2016 February to 2019 February.

Method

- The total number of delivery during the period was 3300 where total 63 cases of ruptured uterus were recorded.
- All the cases of ruptured uterus who were either admitted with complain or who developed it in hospital were included in the study.
- Patients having ruptured uterus due to congenital anomaly were excluded from the study.
- Patients were initially assessed in the labour ward, relevant and socio-demographic data, duration of labour pain, previous antenatal obstetric history, period of gestation, history of previous child delivery were recorded.
- The site of rupture, type of surgery, unit of blood transfusion and maternal and fetal outcome were recorded.

Data Analysis

In the study duration, all data were checked and edited after collection. Then the data was entered into computer, and statistical analyses of the results were attained by using window-based computer software devised with Statistical Packages for Social Sciences (SPSS-23) (SPSS Inc, Chicago, IL, USA). The results were presented in tables and figure, and the statistical terms included in this study were mean, median, standard deviation, percentage.

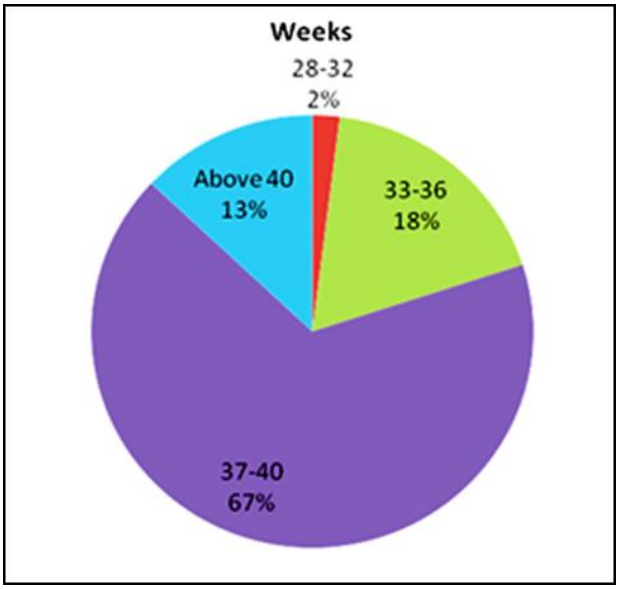


Figure 2: Gestation Age of Maternity Patients (n=63)

Table 1: Parity and age distribution of patients (n=63)

Parity	Age 15-20 yrs	Age 21-25 yrs	Age 26-30 yrs	Age 31-35 yrs	Age 36-40 yrs
1	2	7	8	0	2
3	0	0	4	0	0
4	0	4	2	4	2
5 or more	0	0	3	2	0

Table 2: Pattern of antenatal care of the patients

Variable	Frequency	Percentage (%)
Regular history of antenatal Checkup	0	0
Irregular antenatal checkup	22	34.92%
No antenatal checkup	41	65.08%
Total	**63**	**100**

Table 3: Pre-operative findings

Variable	Frequency	Percentage
Fetus outside the uterus	45	71.42%
Fetus inside the uterus	18	28.57%
Placental adhesion		
Previous 1 C/S	22	34.92
Previous 2 or more C/S	41	65.08
Hysterectomy need	40	63.49
Repair of uterus	07	11.11
Bladder injury/Bladder Rupture	07	11.11

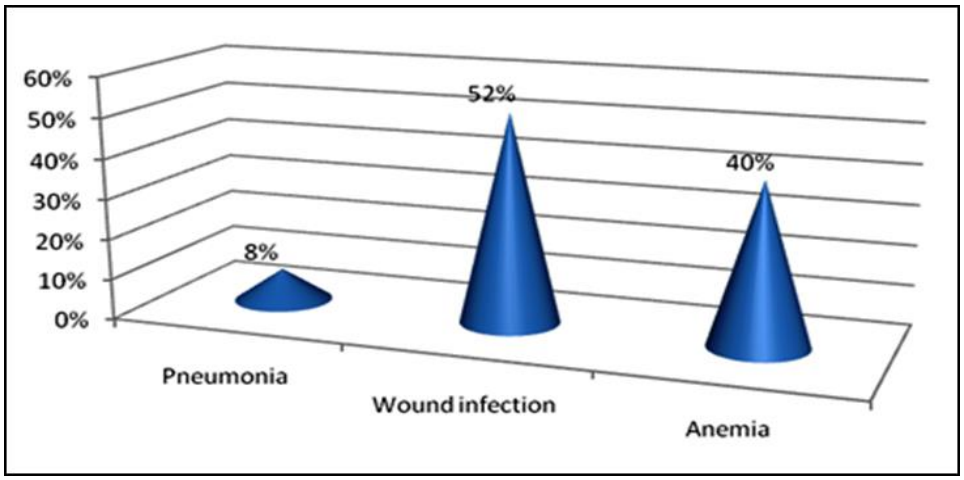


Figure-3: Postoperative Complications.

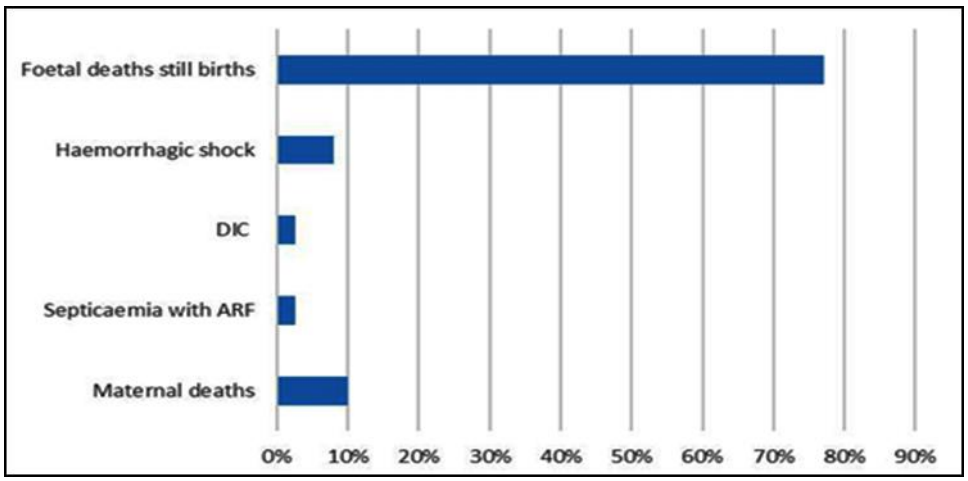


Figure 4: General condition after admission for mother and fetus

RESULTS

Total deliveries were 3300 and the prevalence of ruptured uterus was among 63 or 1.91 percent cases. The table-1 shows the parity and age distribution of maternity patients where age of the maternity patients ranged from 15-40 years. Most of the maternity patients were in the age of 21-30 years.

In figure-2 shows gestation age of patients where most occurrences of ruptured uterus was the gestational age 37-40 weeks, (66.67%).

In table-2, it shows the pattern of antenatal care of the maternity patients among which 65.08 percent (41) of the patients had absolutely no history antenatal checkup. 34.92 percent (22) of the patients had irregular antenatal checkup and no patients had history of regular antenatal checkup. Table-3 describes the preoperative findings of the maternity patients.

In Table-4 shows etiology of ruptured uterus in scarred /unscarred uterus where most common factor was injudicious use of oxytocin (43.3%) in scarred and (19.9%) unscarred uterus.

In table-5, it shows the site of rupture of the patients out of the 63 patients, the rupture was confined to lower segment in 28. In 18 patients had ruptured extended to upper segment and lateral extension. 8 patients had injury to the urinary bladder and not explored in 9 patients due to death before operation. In a recent study showed the types of scar where 27 patients had scar during pregnancy. In figure-3 shows the postoperative complications of the patients who had uterine rupture and most of the patients had infection in the rupture wounds. In figure-4 shows general condition after admission for mother and fetus: where maternal deaths were 10%. In table -7: Fetal consequence after delivery is shown where 88.79% had stillbirths, 7.21% admitted at NICU.

Table 4: Etiology of ruptured uterus in scarred and unscarred uterus

Injudicious use of oxytocin	%
Scarred uterus	43.34%
Unscarred uterus	19.9%

Table 5: Site of rupture of the patients

Site of rupture	n
Scar	6
Lower segment	15
Extension to upper and lateral segment	11
Injury to urinary Bladder	5
Not explored due to death	5

Table 6: Type of scar

Type of scar	n
During Pregnancy Period:	
Previous 2 LSCS	2
During Labour Period:	
Previous 1LSCS	24
Previous 2LSCS	3

Table 7: Fetal consequence after delivery

Fetal consequence	Percent
Still births	88.8%
NICU	7.2%
Alive	4%

DISCUSSION

Ruptured uterus still stays one of the serious obstetric inconveniences. Absence of wellbeing data, ignorance, poor antenatal care, extreme poverty, home delivery by traditional birth attendants and postponement in referrals all adds to uterine rupture. Uterine rupture in the present examination is 1.91%.

This study was similar to study done by few other articles such as HS Malik.[4] However the incidence is highly similar to a study done by Alam et al where they found 1.14% case of uterine rupture.[5] In developing countries like in Ethiopia and Nigeria, few studies including the studies done by Ekpo and Lynch et al, it was found that 0.03% and 0.83% of the childbirth results in uterine rupture.[5,6] Studies conducted in developing countries or underdeveloped countries gives strong and glaring evidence that uterine rupture during childbirth is a major health problem in developing countries, with the rate higher in rural areas. This studies also revealed that socioeconomic condition along with poor health services play a major role in determining the incidence of rupture.[7,8]

Most of the patients (66.67%) in this study were between the age of 21-30 years. Which was compared with one study, where most of the women belonged to the age 31-35 years.[9] Majority of the patients were no antenatal checkup and with irregular antenatal checkup and similar results were found in other studies in both scarred and unscarred abdominal situations.[4,9-11] Injudicious use of oxytocin and the trials of labour was to of the common causes, and prolonged obstructed labour was also a general scenario. This is similar to study conducted by Khan et al[4] and others where rupture of previous caesarian scar was the most common cause.[12] In this study most of the maternity patients had ruptures in the lower segment and some had extension in the upper segment or in the vaginal area, and few of them had injury to urinary bladder. More hospital scare and more blood transfusion is required for the survival of the afflicted mothers.

CONCLUSION

From many examination and scrutiny we can conclude that, the lack of antenatal care, misuse of oxytocin, and inappropriate counseling of patients with history of previous caesarian section for hospital delivery; are the main causes for a ruptured uterus in this study. Further study for a longer period of time with more samples is required for better and more concrete outcome.

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