

## Frequency of Uterine Scar Dehiscence in Patients of Previous One C-Section Having Scar Tenderness

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### ABSTRACT

**Aims:** To determine the frequency of patients with previous one Cesarean section who develop scar tenderness during trial of labour and frequency of Scar Dehiscence in patients with previous one Cesarean section who develop scar tenderness during trial of labour.

**Setting:** Labour room, PGMI / Lahore General Hospital

**Duration of Study:** January 2013 to December 2013

**Results:** In our study, mean age was calculated as 28.62±5.25 years, mean gestational age was calculated as 38.45±2.37 weeks, frequency of patients with previous one cesarean section who develop scar tenderness during trial of labour reveals 19(7.6%), frequency of scar dehiscence in patients with previous one cesarean section who develop scar tenderness during trial of labour was recorded in 2(10.53%).

**Conclusion:** We concluded that the frequency of patients with previous one Cesarean section who develop scar tenderness during trial of labour are not remarkably higher and the trial of labour in these patients may continue confidently and thus decrease rising cesarean section rate in our population.

**Keywords:** Previous one Cesarean section, trial of labour, scar tenderness, Scar Dehiscence

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### INTRODUCTION

All over the world, the concern regarding the increasing rate of caesarean section has focused on Trial of Labour after Cesarean Section (TOLAC) or vaginal birth after cesarean (VBAC).<sup>1</sup> Though, attempts at a trial of labor after cesarean birth (TOLAC) is an accepted practice, the incidence of successful vaginal birth after cesarean delivery (VBAC), as well as the frequency of attempted VBACs, is reduced during the past 10 years, while, 40-50% of females attempted VBAC in 1996, as few as 20% of cases with a previous cesarean delivery attempted a trial of labor in the year 2002. This number is declining to 10% mark with less than 10% of females achieving successful VBAC in 2005.

An important consideration while anticipating trial of labour after cesarean section (TOLAC) is the risk of rupture of uterus.<sup>1</sup> In an attempt to decrease the rate of uterine rupture much research is affected to identify the factors that are associated with it.<sup>3</sup> The incidence of catastrophic rupture, where the maternal and infant lives are in serious jeopardy, is difficult to record, as this event is frequently included with the more common much less troublesome dehiscence. Though, the morbidity of dehiscence is clinically lower than rupture, prenatal identification of an extremely reedy or a dehiscid LUS is believed to be prognostic of subsequent rupture of uterine during the labour.<sup>4</sup> Induction of labour should be avoided, if

possible, because it reduces the probability of success and increases the risk of uterine rupture in a trial of labor after cesarean section.<sup>2</sup>

The most common cause of rupture of uterus is dehiscence of a prior C-section scar.<sup>5</sup> Uterine rupture occurs in between 0.07 to 0.1% of all term pregnancies. It may be correlated with previous uterine scar dehiscence, excessive stimulation with oxytocin, spontaneous labor, cephalopelvic disproportion or transverse position and grand multiparity. Uterine rupture and dehiscence may occur from incomplete rupture and a gradual/steady dehiscence or even from an explosive intra-peritoneal rupture with extrusion of the uterine contents.<sup>6</sup> Retrospectively, an incomplete rupture may only be diagnosed at laparotomy or C-Section.<sup>7</sup> The rate of dehiscence of a lower segment transverse uterine scar is 2 to 4% but of a vertical is more higher.<sup>8</sup> The staff of labour room must be acquainted with earlier signs of scar dehiscence that includes scar tenderness, maternal tachycardia, changes of fetal heart rate like deceleration etc.<sup>9</sup> Females with scar dehiscence are recorded with a definitive fetal distress and may also complain of pain and tenderness over lower segment.<sup>8</sup>

Palpation of abdominal scar to examine the tenderness may provide a clue for probable scar dehiscence although it has not been confirmed in studies.<sup>9</sup> Females having scar dehiscence complaint of pain and tenderness over the lower segment, various studies demonstrated that scar dehiscence

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occurs for less frequently what is thought in Lower Segment Cesarean Section<sup>8</sup>.

We planned this study with the hypothesis that if the frequency of scar dehiscence comes out to be negligible or very small in these patients, this may help us to continue confidently trial of labour in patients with previous one cesarean section who develop scar tenderness and thus decrease rising cesarean section rate.

## METHODOLOGY

A total of 250 cases with singleton pregnancy with cephalic presentation (on USG), previous 1 C-section undergoing trial of labour, 37–41 completed weeks by early scan or LMP and Spontaneous labour were included in the study. All those cases with cephalopelvic disproportion assessed by pelvic examination, pregnancy with medical disorder like PIH, diabetes etc and known classical / inverted T shaped scar were excluded from the study. These cases were enrolled labour room, PGMI / Lahore General Hospital, Lahore. Their clinical record was reviewed their demographic profile (Age, Parity,) was noted and entered in a predesigned proforma. The patients went into spontaneous labour trial of labour was given after excluding any contra-indication. Scar tenderness was a clinical finding that is noted on examination and the intraoperative findings were noted dehiscence present or not. Before performing a repeat cesarean section other parameters like CTG, maternal vital signs were also noted. We used SPSS version 17.0 for collected data of the patients to record mean±sd and frequency of percentages.

## RESULTS

In our study, mean age was calculated as 28.62±5.25 years, mean gestational age was calculated as 38.45±2.37 weeks, frequency of patients with previous one cesarean section who develop scar tenderness during trial of labour reveals 19(7.6%), frequency of scar dehiscence in patients with previous one cesarean section who develop scar tenderness during trial of labour was recorded in 2(10.53%).

Table 1: Frequency of scar tenderness during trial of labour (n=250)

Scar tenderness	n	%age
Yes	19	7.6
No	231	92.4

Table 2: Frequency of Scar Dehiscence (n=19)

Scar dehiscence	n	%age
Yes	2	10.53
No	17	89.47

## DISCUSSION

This study was planned to determine the frequency of patients with previous one Cesarean section who develop scar tenderness during trial of labour and to determine the frequency of Scar Dehiscence in patients with previous one Cesarean section who develop scar tenderness during trial of labour so that if the frequency of scar dehiscence comes out to be negligible or very small in these patients, this will help us to continue confidently trial of labour in patients with previous one cesarean section who develop scar tenderness and thus decrease rising cesarean section rate.

The findings of our study regarding frequency of frequency of scar tenderness during trial of labour and frequency of scar dehiscence among scar tenderness are consistent with a study showing that there were a total of 7 cases of complete and partial scar dehiscence (2.6%). Only 3 of 7 cases (42.8%) of scar dehiscence were associated with preoperative scar tenderness<sup>10</sup>.

Stone et al studied 89 women with one previous caesarean section by using 2 mg intra-cervical PGE-2 gel and reported the rate of vaginal delivery in 66% while 2% had uterine scar dehiscence rate (all asymptomatic)<sup>11</sup>. Another study by Del Valle et al in a retrospective series also reveals no major maternal or perinatal complication<sup>12</sup>. Norman and Ekman applied 0.5 mg prostaglandin E2 gel intracervically and achieved a 63% vaginal delivery rate while no case of uterine rupture<sup>13</sup>.

The results also reveal that complications following successful vaginal delivery were lower than emergency caesarean sections. Scar tenderness was reported in only 7.6% of patients. Vaginal birth after cesarean section should be encouraged with strict fetomaternal monitoring during labor in health care centers. In the current study, we did not include any fetal complications being the limitation of the study.

However, the frequency of scar dehiscence comes out to be negligible or very small in these patients, this is helpful for us to continue confidently trial of labour in patients with previous one cesarean section who develop scar tenderness and thus decrease rising cesarean section rate in our population.

## CONCLUSION

We concluded that the frequency of patients with previous one Cesarean section who develop scar tenderness during trial of labour are not remarkably higher and the trial of labour in these patients may continue confidently and thus decrease rising cesarean section rate in our population.

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