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STUDY OF PREGNANCY OUTCOME IN FULL TERM PREGNANT WOMEN WITH PREVIOUS ONE CAESAREAN SECTION

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Abstract

Indication being previous pregnancy bad experience and not want to take risk. 72% patients underwent trial of labour after caesarean section (TOLAC) out of which 46 patients (63.8%) had successful VBAC and 26 patients (36.2%) underwent repeat emergency LSCS. Maternal and neonatal complications were higher in Emergency LSCS group than in those who had successful VBAC.

Keywords: *VBAC (Vaginal birth after Caesarean section), TOLAC (Trial of labour after Caesarean section), ERCS (Elective repeat caesarean section), EmCS (Emergency caesarean section)*

INTRODUCTION

Caesarean section is the delivery of the foetus through the abdominal route by putting an incision on the maternal abdomen and the uterus. [1]

The goal of obstetric is a pregnancy that results in a healthy mother and infant. Most of the art of good obstetric care involves the delicate balance of avoiding caesarean delivery with its attendant complications and its application in circumstances where it is necessary for better perinatal outcome in indicated cases.

Today overall caesarean section rate has escalated ranging from 5% to 50%, in different regions, with repeat caesarean section accounting for approximately half of the increased rate [2]. Consequently, number of women with history of previous caesarean section is on the rise and this makes it a separate obstetric entity which a future obstetrician has to face.[3]

This is especially important in Indian scenario where women have many births due to illiteracy and social circumstances. In such a condition it is important to know that having many children by multiple caesarean sections carries much higher morbidity and mortality as compared to vaginal birth. India being a developing county, increased rate of caesarean section also imposes a greater economic burden on the country and vaginal birth after caesarean section (VBAC) offers a more cost-effective option to planned repeat caesarean delivery.

So it is important to judge the success rate of vaginal birth after caesarean section and its accompanying complications so as to know the applicability of vaginal birth after caesarean section for women with previous caesarean section. [4]

Edwin B. Cragin once reported “once a caesarean, always a caesarean”, way back in 1916 when caesarean section was performed with classical incision on uterus. But with introduction of low transverse uterine incision by Kerr vaginal birth trial can be given to the women coming with previous caesarean section and the protocol is now changed to “once a caesarean, always a hospital delivery” [2].

METHODOLOGY

It was a prospective observational study of 100 enrolled patients in the labour room of L.G. Hospital with 37-40 weeks of gestation with history of previous one caesarean section, presenting with spontaneous onset of labour; over a period of six months, after taking ethical clearance from the institutional ethjic committee.

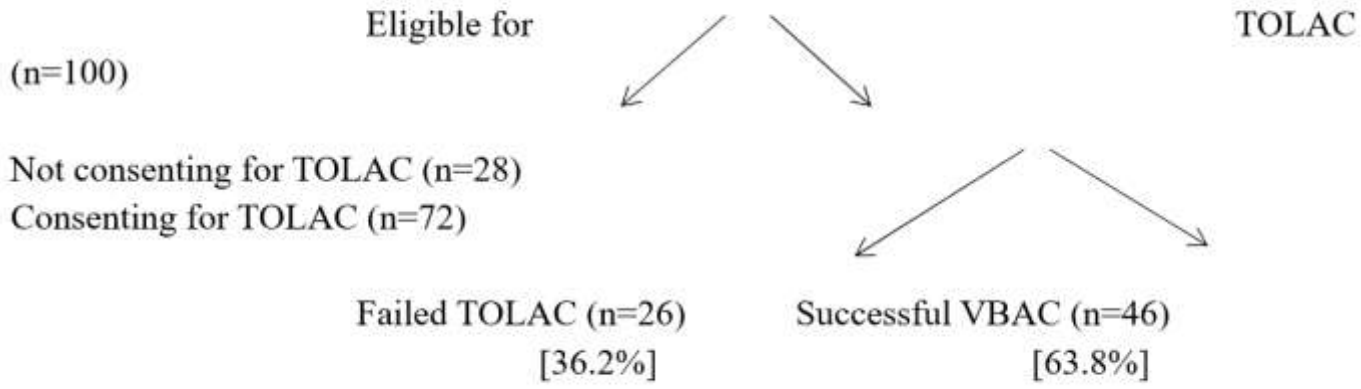
Inclusion criteria were pregnant women with 37-40 weeks of gestation, single live intrauterine foetus, cephalic presentation, adequate pelvis and history of previous one lower section caesarean section. Exclusion criteria were history of more than one previous caesarean section, or previous one classical caesarean section, less than 37 weeks and more than 40 weeks of gestation, absolute indication of caesarean section, complications in previous caesarean section like

wound gap, sepsis, febrile episode, patient presenting with medical and surgical comorbidity and high risk pregnancy like multiple gestation, pregnancy induced hypertension, pre eclampsia/eclampsia, and severe anaemia.
On admission thorough antenatal history was taken and careful evaluation of the patient was done and decision regarding TOLAC was taken. A written informed consent had taken from all the cases. All patients and their relatives were explained about the advantages of vaginal birth over elective caesarean section and also risk of scar dehiscence and need for emergency caesarean section if trial of vaginal delivery fails.
Labour was monitored. Termination of vaginal birth trial was done if any of following was present: signs of foetal distress, suspected scar dehiscence or rupture based on clinical examination: nonspecific maternal tachycardia and scar tenderness, non-progress of labour defined as <1/2 cm dilatation of cervix per hour, assessed 4 hourly.
To cut short 2nd stage of labour, prophylactic assisted vaginal delivery was carried out by the means of forceps or vacuum, if second stage exceeds 30 minutes. Third stage of labour was actively managed.
Maternal outcomes were measured in terms of type of delivery i.e., VBAC, failed VBAC, or elective repeat caesarean section, occurrence of scar dehiscence, occurrence of postpartum haemorrhage (PPH), uterine rupture, with need of hysterectomy and blood transfusion. Neonatal assessment done by weight of the newborn, APGAR score, need for resuscitation, NICU admission, incidence of occurrence of respiratory distress syndrome (RDS), and perinatal mortality.

RESULTS

In the present study, 100 patients of previous one caesarean section between gestational weeks of 37 to 40 weeks were included, out of which 72 patients gave consent for TOLAC, while 28 refused TOLAC and elective repeat caesarean section (ERCS) was done. Main reasons for not consenting for TOLAC were previous pregnancy bad experience, pregnancy after secondary infertility, small family norms and not want to take risk, and no previous child alive or bad obstetrics history.
From 72 patients 46 patients (63.8%) had successful VBAC while 26 (36.2%) had failed TOLAC and emergency caesarean section was done.

Framework of the study:



In the present study out of 72 patients, maximum number of patients with successful VBAC was found in age group of 21-30 years. Literature shows that for properly selected cases with prior one caesarean section there is 60-80% success rate in VBAC. [2,5,6] In our study success rate is 63.8%, which is comparable to the studies of Tripathi JB et al, Kumar P et al, Patel S et al. [6,7,8,9] In present study, 32 patients (84.2%) who had successful
VBAC had history of prior vaginal delivery compared to only 15.8% of failed TOLAC patients. Which suggest increased parity with previous vaginal delivery was strongly associated with successful VBAC. This result was comparable with reported studies of Patel S et al. [9] Total NICU admissions were 10 out of which, 7 (70%) were from failed TOLAC group. The most common indication for emergency lower segment caesarean section
(EmCS) was non-progression of labour followed by scar tenderness, foetal distress and meconium stained liquor, and scar dehiscence.[10,11,12]
Most of the neonates, who were delivered by emergency caesarean section, were taken to NICU for observation. Our study was well comparable with studies of Shah Jitesh et al, Shruthi Goel et al and Patel S et al who concluded that infants

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born after successful VBAC had the lowest rates of NICU admission than compared to babies born by failed TOLAC.[9,13,14]

TABLE 1

Outcome of trial of scar (n=72), in patients consenting for TOLAC

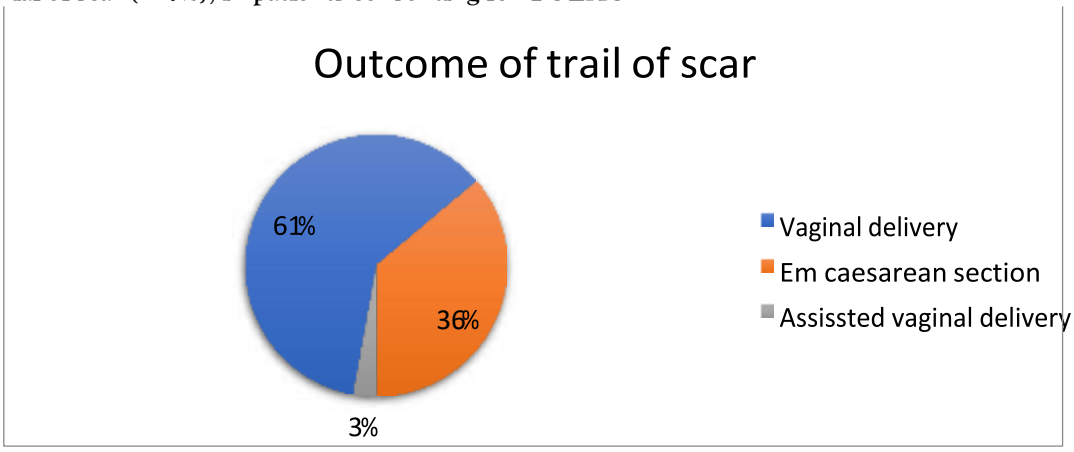

TABLE 2

Indication for emergency caesarean section in case of failed TOLAC

	Indication	Cases
1	Non progression of labour	10
2	Scar tenderness	8
3	Foetal distress and MSL	6
4	Scar dehiscence	2
		26

TABLE 3

Maternal and fetal complications

	Maternal complications	Case
1	PPH	3
2	Vaginal hematoma	2
3	Third degree perineal tear	1
4	Puerperal pyrexia	2
5	Episiotomy wound gap	1
6	Scar dehiscence	2
		11

	Fetal complications	Case
1	NICU admissions	10
2	Perinatal mortality	1

TABLE 4

Comparison of successful VBAC and failed TOLAC

	Successful VBAC (n=46)	Failed TOLAC (n=26)
Previous Vaginal Delivery		
No (n=34)	14 (41.2%)	20 (58.8%)
Yes (n=38)	32 (84.2%)	6 (15.8%)
Maternal age		

<20 years	1 (25%)	3 (75%)
21-30 years	28 (58.3%)	20 (41.7%)
>30 years	17 (85%)	3 (15%)
Duration between the previous CS and current pregnancy		
<18 months (n=10)	3 (30%)	7 (70%)
>18 months (n=62)	47 (75.8%)	15 (24.2%)
Birth weight		
<2.5 kg	9 (69.2%)	4 (30.8%)
2.5-3 kg	25 (62.5%)	15 (37.5%)
>3 kg	12 (63.1%)	7 (36.9%)
NICU admissions	2	7
Perinatal death	-	1

CONCLUSION

With proper case selection, appropriate timing and close supervision of trial of labour, after prior caesarean section (TOLAC) is safe and often successful in institute having facilities for emergency caesarean section. A prior vaginal delivery is associated with higher success rate compared to no prior vaginal birth.

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