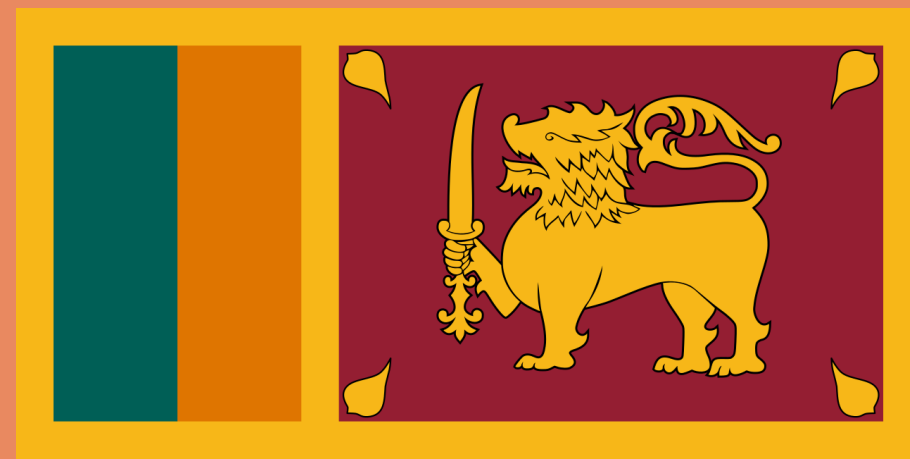




The outcome of Trial of Labour After Cesarean (TOLAC) in a Sri Lankan tertiary care center and development of a risk-prediction model.

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INTRODUCTION

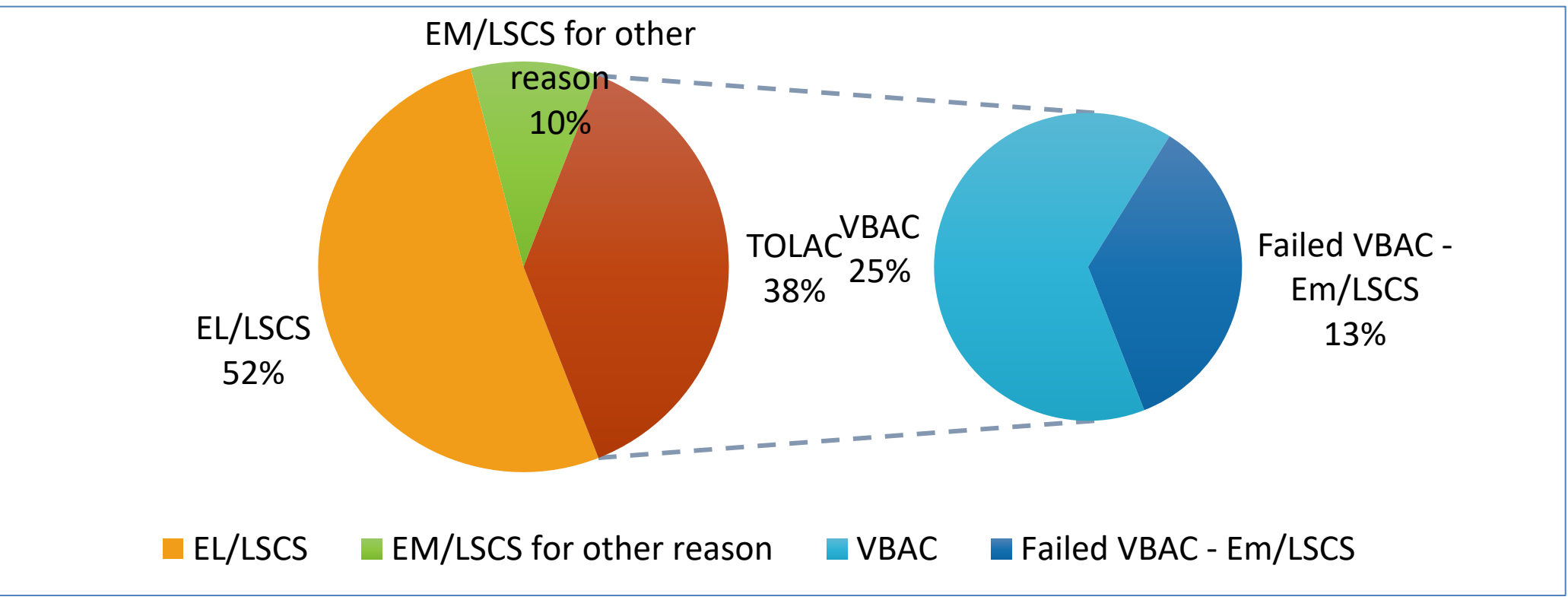
- Rising Caesarean Sections(CS) rate is a major challenge for obstetricians & to the local health system.
- Previous CS being the commonest indication for CS; TOLAC becomes an important alternative.
- However, TOLAC is known to be associated with complications.
- A scoring system to identify women who can achieve Vaginal Birth After Cesarean (VBAC) following TOLAC is a timely need.

METHODOLOGY

- Study was conducted as a retrospective cohort study based of secondary data from DeSoyza hospital, which is the premier maternity hospital in the country.
- Data was extracted from health records of 328 mothers who had presented for delivery with previous one CS, and no contraindication for vaginal delivery (VD).
- Factors associated with VBAC were analyzed using Chi-square followed by binary logistic regression at significance of P<0.05.
- Variables significantly associated with VBAC were assigned points based on strength of association and a scoring system was developed.

RESULTS

- Mean age of the mothers were 31.2 years and 9.1% had parity >3.
- While 17.4% had a history of VD, 9.8% had already undergone VBAC.
- Majority of previous CS (63.1%) were done as emergencies with the commonest (43.9%) indication being fetal distress (FD).
- Majority had normal CTG (91.5%) and Modified Bishops Score (MBS)<7 (70.9%) on admission.
- In the index pregnancy, 125 (38.1%) underwent TOLAC of which 81 (24.7%) succeeded while 44 (13.4%) failed, leading to emergency CS.
- Majority of 51.8% had undergone elective CS, and 10.1% had emergency CS for other reasons.
- Mothers who had undergone TOLAC (n=125) were selected for model development, of whom 64.8% (n=81) had achieved VBAC.
- Previous VD (p=0.053), previous VBAC (p=0.025), FD not contributing for preceding CS (p=0.010), MBS on admission >7 (p=0.003), higher cervical effacement on admission (p=0.008), maternal age <30 years (p=0.066) showed significant associations with VBAC.
- Binary logistic regression revealed following as determinants of VBAC: history of VBAC (OR=11.4, p=0.05), FD not being an indication for previous CS (OR=5.5, p=0.003), MBS >7 on admission (OR=14.4, p=0.048) and maternal age <30 (OR=3.5, p=0.027).



SCORING MODEL

- FD not being an indication for previous CS - 14
- MBS>7 on admission – 14
- Previous VBAC – 11
- Maternal age >30 - 03

TOLAC vs CS

	TOLAC	EL/CS
Previous Vaginal Delivery	28.8%	8.8%
Previous VBAC	20%	2.9%
Previous CS	Emergency LSCS – 76.8%	Emergency LSCS – 55.3%
MBS on admission > 7	59.2%	10%
Post partum complications – Mother	Uterine rupture – 1.2% (n=1) Uterine tears – 4.5%	No uterine ruptures or tears
Post partum ICU admissions	VBAC – 2.4% Failed TOLAC – 2.3%	4.2%
Mean duration of hospital stay	VBAC – 2.1 days Failed TOLAC – 2.3 days	2.5 days

Parameter	Our study	Guidelines/ other studies
Mothers who underwent TOLAC	38%	WHO recommendation – 30%
Success of TOLAC	64.8%	RCOG green top – 72-75% Previous local studies – 76% & 69%
Prevalance of previous VBAC among successful mothers	12.9%	USA - Flamm and Geiger (1997) - 9.8% .
Prevalance of previous VD among successful mothers	17.4%.	Retrospective Chinese study by Xing et al (2012-2016) - 36.45%

CONCLUSION

This scoring system can be utilized to predict the success of TOLAC and thereby reduce the rate of unwarranted CS.