Is it possible to predict the success of TOLAC? *(Winner of the SIMP Award, in memory of Professor Carlo Romanini)*

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Objective. The aim of this study was to determine antenatal factors, which may predict vaginal birth and uterine defects after a ceasarean section.

Materials and Methods. His retrospective observational study conducted at Policlinico Casilino from June 2019 to July 2022 using data obtained from medical records, included women with a single pregnancy with cephalic presentation at gestational age of > 35 weeks who had previously undergone one lower segment cesarean delivery and who had attempted trial of labor after cesarean delivery (TOLAC).

Results. Our study enrolled 360 women who obtained the TOLAC consensus. 208 (57.78%) had a successful vaginal birth. A total of 7 (1.94%) uterine dehiscences and no uterine ruptures were registrated. A successful vaginal birth was significantly correlated with lower (Body-Mass Index) BMI (23.23 *vs* 25.89, p < 0.0001); previous vaginal birth (13.46% *vs* 3.29% p = 0.0005) and fewer interpregnancy months interval (55.7 *vs* 66, p = 0.01) while a decreased VBAC rate was observed in those with induction of labour (37.02% *vs* 50%, p = 0.02) and recurrent indication (arrest disorder, cephalopelvic disproportion) of prior ceasarean section (25.48% *vs* 36.18%, p = 0.0291). Uterine dehiscence was significantly correlated with a lower uterine segment (LUS) thickness (1.7 *vs* 2.2, p = 0.02), lower full LUS thickness (3.3 *vs* 3.7, p = 0.0043) and higher neonatal weight (3701 *vs* 3263, p = 0.0001). Neonatal weight results the only independent variable for the uterine dehiscence (AUC 0.917), thus the independent variables regarding the success of vaginal birth include lower BMI and previous vaginal birth. Furthermore, a logistic regression analysis was performed, as described on **Table 1**.

Conclusions. These significant variables could be used to accurately predict individual success rates of TOLAC during prenatal counselling.

Table 1.

	ROC	p	OR	AUC
Vaginal Birth				
BMI	cut off ≤23.2335	**<.0001**	3,30	0.645
Previous vaginal birth		**0.0005**	4.57	0.551
Induction of labour		**0.02**	0.5878	0.565
Interval between labours (months)	cut off <40.77	**0.009**	1,81	0.569
Reccurent indication of prior C-section	0.603	**0.0291**	0.554	0.501 to 0.606
Dehiscence				
LUS thickness	cut off ≤1.8	**0.02**	7,95	0.713
Full LUS thickness	cut off ≤3.5	**0.01**	6.80	0.723
Weight of birth	cut off >3440	**0.0001**	28	0.828