

Vaginal birth after caesarean section (VBAC): uterine rupture and perinatal asphyxia

Laura Lambicchi¹, Elisabetta Colciago², Noemi Passarelli², Simona Fumagalli², Sara Ornaghi^{1,2}, Federica Fernicola², Isabella Marzia Maini¹, Silvana Mariani¹, Anna Locatelli^{1,2}

¹Fondazione IRCSS San Gerardo dei Tintori, Monza, Italy.

²Università di Milano-Bicocca, Milan, Italy.

DOI: 10.36129/jog.2024.S130

Objective. To investigate incidence of uterine rupture (UR) and maternal-neonatal outcomes in women admitted to vaginal birth after caesarean section (CS) in our Obstetric Unit which has a long tradition of VBAC strongly supported by the team.

Materials and Methods. Retrospective analysis of women with ≥ 1 CS in 13 years at our tertiary care Obstetric Unit. We recorded pregnancy and delivery characteristics, previous obstetric history and neonatal outcomes.

Results. There were 38,422 deliveries and 39,571 newborns. 4,289 (11.2%) women had ≥ 1 CS. Of these, 20.8% (893/4,289) had a previous vaginal delivery. 58.7% were admitted to trial of labour after CS and 76.5% achieved a successful VBAC (92% in women with ≥ 1 previous vaginal birth).

Overall, UR occurred in 0.37% (16/4,289) and Neonatal Hypoxic-Ischemic Encephalopathy (NHIE) in 0.12% (5/4,289).

Among women admitted to VBAC, UR occurred in 0.56% (14/4,289). None of these 14 women had previous vaginal deliveries. In the majority of cases Bishop Score at admission was unfavourable.

There were no cases of maternal mortality nor hysterectomy, one bladder injury, two major postpartum haemorrhages. Perinatal asphyxia occurred in 35.7% (5/14), always preceded by abnormal CTG trace, with NHIE grade I in 7.1% (1/14) and NHIE grade III in 14.2% (2/14) with 2 consequent deaths.

Conclusions. Incidence of UR and NHIE are in line with those described in literature. Previous vaginal birth appears to be protective in respect of UR.