

Girault A, Bonnet C, Goffinet F, Blondel B, Le Ray C. **Association of Oxytocin Use and Artificial Rupture of Membranes With Cesarean Delivery in France.**

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Abstract

Objective: To evaluate whether the decrease in the frequency of oxytocin administration and artificial rupture of membranes observed between the 2010 and 2016 French Perinatal Surveys was associated with a change in the frequency of cesarean delivery or cesarean delivery indications among women who entered labor spontaneously.

Methods: This cross-sectional study included women who participated in the 2010 and 2016 French National surveys who had singleton pregnancies and who gave birth at at least 37 weeks of gestation after spontaneous labor to a liveborn neonate in cephalic presentation. To test whether the observed decrease of oxytocin administration and artificial rupture of membranes between the two study years was explained by the women's individual characteristics and maternity units' organizational characteristics change, multivariable analyses were performed. The same strategy was applied for the change in intrapartum cesarean delivery rates between the 2 years. These analyses were repeated in nulliparous, low obstetric risk women, multiparous low obstetric risk women, and women with a previous cesarean delivery. The cesarean delivery indications were compared in 2010 and 2016.

Results: Oxytocin administration decreased significantly from 58.3% in 2010 to 45.2% in 2016 (adjusted odds ratio [aOR] 0.51; 95% CI 0.47-0.55), as did artificial rupture of membranes, from 52.4% to 42.6% (aOR 0.66; 95% CI 0.62-0.71). The intrapartum cesarean delivery rate remained stable-6.9% compared with 6.6% (aOR 0.93; 95% CI 0.82-1.06). The same patterns were observed in low risk groups and women with a previous cesarean delivery. The cesarean delivery indications were similar in both years.

Conclusion: The significant decrease in oxytocin administration and artificial rupture of membranes in 2016 compared with 2010 was not accompanied by an increase in the intrapartum cesarean delivery rate for women in France who entered labor spontaneously. These results support the recent international guidelines.