

JOINT EVENT

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***Maria Livia Ognean****Lucian Blaga University of Sibiu, Romania***Factors associated with exclusive formula feeding in late preterm infants**

Introduction: Late preterm delivery rate is continuously increasing worldwide due to multiple factors: Increased rate of multiple pregnancies, increased incidence of pregnancies associated with health conditions since advanced maternal age is also rising, increased preference of both professionals and mothers for elective induced labor and cesarean section, avoidance of obstetric malpractice litigation, etc. Experts are talking now about the paradox of breastfeeding association with increased morbidity in late preterm infants (LPI) searching feeding guidelines for infants to improve their short and long term outcome.

Aim: The authors evaluated which factors are associated with exclusive formula feeding in late preterm infants.

Material & Methods: The retrospective study included LPI (340-366 weeks gestation) born between January 1, 2013 and December 31, 2016 in the maternity of the Clinical County Emergency Hospital Sibiu, a level III regional unit. The unit protocol for breastfeeding follows the 10 steps recommended by the Baby Friendly Hospital initiative. Infants not fed at discharge were excluded. Maternal and neonatal characteristics, epidemiological and clinical data were extracted from neonatal charts and comparatively analyzed between exclusively breastfed and formula fed LPI. Statistical analysis was performed using SPSS for Windows 10.0 p was considered statistically significant if <0.05 (CI 95%).

Results: 489 LPI were admitted in our unit during the four year study period, 103 exclusively breastfed (21.2%), 36 exclusively fed with formula (7.4%) and 347 with mixed feedings (71.4%). 3 infants were submitted without feedings to pediatric surgery. As compared to exclusively breastfed LPI, formula fed infants had significantly lower birth weight ($p<0.001$), gestational age ($p=0.018$), Apgar score at 1 minute (<0.001), increased need for birth resuscitation (27.8% vs. 11.7%, $p=0.022$; OR 1.42), increased rate of cesarean section delivery (44.4% vs. 24.3%, $p=0.021$; OR 1.30), maternal-fetal infection (25% vs. 8.7%, $p=0.012$; OR 1.55), admission rate to neonatal intensive care unit (58.3% vs. 30.1%, $p=0.003$; OR 1.39) and an increased length of hospitalization (26.6 ± 23.0 days vs. 11.4 ± 8.6 days; $p<0.001$). Mothers of the formula fed LPI had increased age ($p>0.05$), number of gestations and parity ($p<0.005$), reduced educational level ($p<0.0001$) and lack of prenatal care (47.2% vs. 19.4%, $p=0.001$) compared to mothers that successfully breastfed their infants at discharge. A very low rate of exclusive breastfeeding was noted in LPI twins (11.7%) and those born from pregnancies obtained with assisted reproductive techniques (ART) (1%). An increased rate of exclusive breastfeeding was noted in 2016 compared to previous years of study (up to 41.7% of LPI).

Conclusion: Unfortunately, LPI with the most complicated perinatal course are not benefiting from breast milk and breastfeeding. Interventions for improving breastfeeding rates must be directed towards multiparous women with low level of education. Efforts must be done to improve the prenatal care in this category of pregnant women. Also, twins and infants born from ART pregnancies are also identified as at risk categories as regards successful breastfeeding.

Biography

Maria Livia Ognean is an Assistant Professor at Faculty of Medicine, University Lucian Blaga, Sibiu. She completed her MD from the University of Medicine and Pharmacy Tg. Mures, PhD from University of Medicine and Pharmacy Cluj Napoca, Senior Neonatologist, Chief of Neonatology Department I, Clinical County Emergency Hospital Sibiu, Romania. She is working as Associate Professor at University Lucian Blaga Sibiu since 2006. She is a member of national and international neonatology and perinatology societies, member of the Executive Committee of UENPS, Secretary of the Romanian Association of Neonatology during 2010-2017, Former Scientific Secretary of the Romanian journal Neonatologia, published over 140 papers in national and international journals.

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