

# 2<sup>nd</sup> GLOBAL PEDIATRIC OPHTHALMOLOGY CONGRESS

June 05-06, 2017 Milan, Italy

## Epidemiology of retinopathy of prematurity in Southern Romania during 2002–2016

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**Objectives:** The objectives of this study are to analyze the incidence of retinopathy of prematurity (ROP) and of perinatal factors associated with an increased incidence of ROP in preemies born in maternities from Southern Romania during 2002-2009, part of the National ROP Screening and Treatment Program.

**Materials & Methods:** All infants who underwent ROP screening during 2002-2016 were included in the study sample. An analysis of ROP incidence was performed on total sample and various gestational ages (GA) and birthweight (BW) groups, and its progress during the 8 year's time frame. Factors associated with an increased incidence of ROP were identified. Statistical analysis was done with SPSS (version 21.0, SPSS Inc.). A p value <0.05 was considered statistically significant.

**Results:** Out of 6120 examined infants, ROP incidence reached 55.8% during 2002-2009, and then decreased to 38.5% by 2016, while the yearly number of preemies examined increased every year. ROP incidence was inversely correlated with GA and BW. 850 of the infants had severe ROP, and required treatments like laser and intravitreal bevacizumab (13.8% of the total sample). The main perinatal factors associated with an increased incidence of ROP were birth by C-section, ruptured membranes for over 24 hours, need for mechanical ventilation (IPPV, CPAP), sepsis, necrotizing enterocolitis, anemia, need for use of dopamine (p<0.001).

**Conclusions:** The initial tendency of increasing incidence of ROP has reversed since 2013, including infants with higher GA and BW (over 32 weeks and 1500 g), while mean GA and BW tend to increase from one year to the other. Tackling some of the identified perinatal risk factors would facilitate the decrease of ROP incidence in Southern Romania.

### Biography

Associate Professor Dr. Tatiana Ciomărtan, the current head of the Discipline I Pediatrics, began her professional career under the guidance of Prof. Dr. Răzvan Prișcu, Prof. Dr. Adrian Georgescu, Dr. Octavian Rusu and the team of academic staff and eminent physicians of the Institute. From them, she had the privilege to acknowledge the theoretical notions and practical skills, as well as the love for newborns and children for whom she cared for over 25 years. Multiple internships abroad (Japan, Mexico, Great Britain, USA etc) in the field of Pediatrics, Neonatology and Pediatric Intensive Therapy, have opened new horizons and challenged her to strive for the initiation of Pediatric subspecialisation in Romania. The activity of medical, didactic and research assistance of the Pediatrics I Discipline team is intended to be a normal continuation of its rich tradition.

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