10-year retrospective review of retinopathy of prematurity in Western Romania

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INTRODUCTION

Retinopathy of prematurity (ROP) is a major cause of avoidable childhood blindness, affecting more than 50,000 babies worldwide.

A third world ROP epidemic has arisen in middle-income countries which face higher incidence of premature babies developing ROP than the rest of Europe.

Romania is one of the countries with high-risk of ROP blindness

ROP screening was initiated in 2002 and is now throughout the country.

In Romania, data from the Institute of Mother and Child Protection has shown that bigger and older babies develop ROP than in developed countries, which led to the extention of the screening criteria to a gestational age (GA)<=34 weeks and birth weight(BW)<=2000g

Outcomes: Describe the ROP screening, outcomes and treatment service in Western Romania with the aim of highlighting the challenges of managing ROP in this region

METHODS

Data was collected retrospectively from hand-written paper clinical notes, recorded electronically and analysed with SPSS24. We included babies screened for ROP in Timisoara, Romania, performed by a single–handed ophthalmologist over a 10 year period.

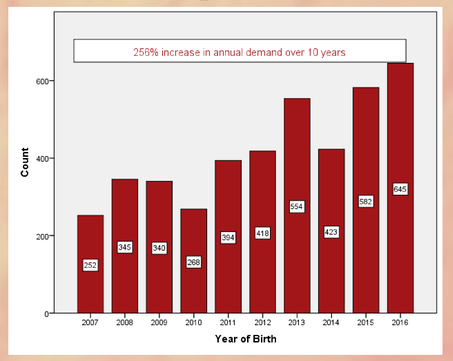
CONCLUSIONS

The high demand for ROP screening and ROP incidence in Romania continues to rise annually by 20-25%. Applying the referral criteria more strictly and introducing telemedecine services to reduce the impact of travelling on babies could help improve outcomes and reduce the demand on services in this region.

RESULTS

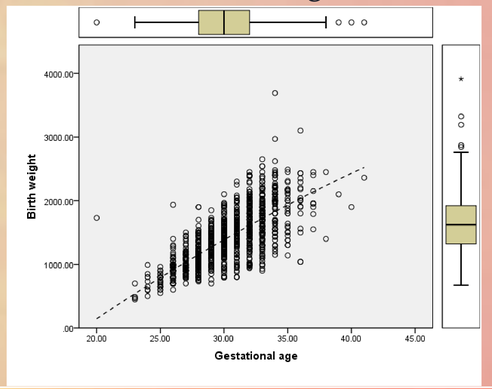
SCREENING CRITERIA

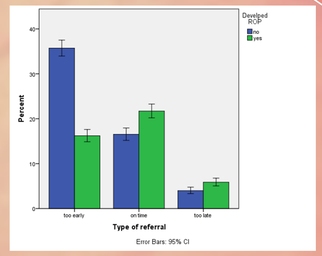
4221 babies were screened from 2007 to 2016 with a 256% increase in annual demand over this period



74.6% travelled from outside the city.

The mean gestational age (GA) and birth weight (BW) at screening were 33 weeks and 1900g, higher than the international recommended screening criteria.

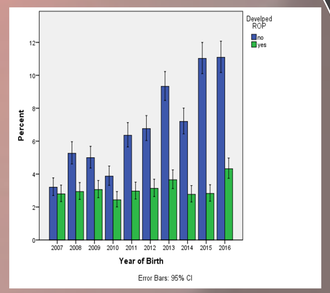




Approximately half of the babies were screened early. 46% of these babies developed ROP. From the babies screened too late, 59.5% developed ROP and 24% had a poor outcome. 23% of babies did not meet the criteria for screening but 26 of these cases still developed ROP with 2 requiring treatment

CLINICAL OUTCOMES

30% (N=1294) of all screened babies developed ROP.
6.7 % (N=85) developed aggressive posterior form.
19.6% (N=250) of babies who developed ROP had threshold ROP.
34 babies ended up with retinal detachment following treatment



96.5% babies had primary LASER treatment
Remaining 3.5% had primary Avastin/Lucentis injections or combined treatment.