

ABSTRACT

A STUDY ON FACTORS AFFECTING THE OUTCOME OF RETINOPATHY OF PREMATURITY – A CROSS SECTIONAL ANALYTICAL STUDY WITH INTERNAL COMPARISON, AT A TERTIARY CARE CENTER IN NORTH CHENNAI

Background: Retinopathy of prematurity (ROP) is a retinal vascular disease that predominantly affects these preterm neonates. There are various known and proven risk factors for ROP including very low birth weight (VLBW) neonates weighing <1500g, prematurity (<32-34 weeks of gestation), hyperoxia, prolonged oxygen exposure, neonatal hyperbilirubinemia, intraventricular hemorrhage, poor post natal weight gain, infants born to mothers with Gestational diabetes mellitus (GDM), etc. But the risk factors leading on to severe stages of ROP are still very unclear.

Aim: To determine the prevalence of ROP and severe (type 1) ROP in the newborns undergoing routine ROP screening. To be able to predict the risk factors associated with severe ROP requiring laser versus ROP undergoing spontaneous resolution. To be able to identify the preventable causes among these risk factors.

Method: A cross-sectional analytical study was conducted over 15 months in 2 Newborn intensive care units. All newborns screened ROP positive were included in the study and followed up till a definitive outcome – regression or progression to severe stages, was reached. Risk factors among each group were analyzed.

Result and conclusion: Incidence of ROP positivity in the newborn unit under study was 55.7% and incidence of severe ROP was 17.3%. Gestational diabetes mellitus and

non-usage of antenatal steroids were the maternal risk factors was associated with severe / type 1 ROP. Neonatal sepsis (culture proven), neonatal hyperbilirubinemia requiring phototherapy, respiratory distress/conditions requiring oxygen (RDS), oxygen requirement >7 days, seizures and congenital heart disease in the newborns were the neonatal risk factors associated with progression to severe ROP requiring laser treatment. Among the analyzed risk factors non-usage of antenatal steroids , neonatal sepsis, neonatal hyperbilirubinemia, respiratory distress, oxygen requirement >7 days are the preventable factors.