IS HYPERGLYCAEMIA ASSOCIATED WITH RETINOPATHY OF PREMATURITY?

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Aim: To determine the association between hyperglycaemia (HG) in the first two weeks of life and retinopathy of prematurity (ROP) in preterm infants.

Method: Retrospective case control study of infants born at ≤ 31 weeks of gestation and/or birth weight ≤ 1500 g over three years. Data collected: demographic, CRIB score, blood sugars, age birth weight (BW) regained, culture proven sepsis, ROP, FiO_2 and pCO_2 measurements during first two weeks of life. Infants who died before ROP screening, major congenital anomalies and ex-utero transfers after 24 hours of age were excluded.

Results: Out of 312 eligible infants 57 infants excluded because ROP result was not obtainable from their local hospitals. The mean BW (888 g in ROP v 1175 g in control, $p < 0.001$) & gestational age (26.4 weeks v 29, $p < 0.001$) was significantly lower, and CRIB scores (10.3 v 6.9, $p < 0.001$) higher in ROP infants. Significantly higher number of infants with HG (80.4% v 29.4%, $p < 0.001$) and sepsis (84.6% v 28.9%, $p < 0.001$) developed ROP. There was no significant association with the other factors studied and ROP.

Conclusion: HG and sepsis are strongly associated with ROP along with well established other (GA, BW) risk factors.