

Retinopathy of Prematurity in Very Low Birth Weight Infants

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Abstract

This study aims to determine the prevalence of and risk factors associated with retinopathy of prematurity (ROP) in very low birth weight (VLBW) infants. All premature VLBW infants, admitted into the neonatal intensive care unit of the University Hospital Kuala Lumpur, were screened from 4 weeks of life. Perinatal and neonatal data were retrieved from the infants' medical notes. Between August 1994 and July 1996, 100 infants had their eyes examined serially. Of the 15 (15%) infants with ROP, all were less than 31 weeks gestation, and only 1 infant had birth weight above 1250 g. Five (5%) infants had severe ROP; 4 infants underwent cryotherapy for stage 3 threshold disease. Infants with ROP, as compared to infants without ROP, had lower birth weight [mean (SEM) 993 (50) g versus 1205 (22) g, $P < 0.001$], lower gestational age [mean (SEM) 28.0 (0.4) weeks versus 30.1 (0.2) weeks, $P < 0.001$], higher rates of patent ductus arteriosus and chronic lung disease, greater number of radiographic examinations and episodes of late-onset suspected/confirmed sepsis, and required longer duration of supplemental oxygen, ventilation, xanthine, antibiotics and intralipid use, but were slower to establish full enteral feeds. On multivariate logistic regression analysis, birth weight ≤ 1000 g [OR 2.38, 95% CI 1.25, 4.55, $P = 0.009$] and gestational age ≤ 28 weeks [OR 2.86, 95% CI 1.47, 5.56, $P = 0.002$] were significant predictors of increased risk of this disease. In conclusion, ROP is strongly associated with smaller, more immature and sicker neonates. Prevention of prematurity would help reduce the incidence of this disease.

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