

ABSTRACT

Prevalence of Retinopathy of Prematurity and Refractive Status in Premature Infants in Sabah Women and Children Hospital (SWACH)

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Introduction: Myopia has been regarded as an important cause of blindness and visual impairment by WHO. Due to higher incidence of myopia in a preterm baby with ROP, early detection and visual rehabilitation need to commence as soon as possible to give the children better quality of life and prevent blindness in this population. To determine the prevalence of ROP and refractive status in premature infants in Sabah Women and Children Hospital, Kota Kinabalu in 2018. To establish the relationship between low BW and GA with the presentation of ROP.

Methods: A retrospective cohort study of clinical records of all premature infants (BW < 1.5 kg or GA < 32 weeks) in SWACH. All demographic and clinical data were obtained.

Results: A total of 265 premature infants were screened for ROP, 117 female and 148 male. Bumiputera Sabah and Sarawak (64.5%) were the highest, followed by others (24.5%), Malay (5.7%) and Chinese (5.3%). The mean GA and BW for all screened infants were 30.33 (2.07) weeks and 1.33 ± 0.31 kg. Mean spherical equivalent (MSE) at the age of 2 months old was +2.95 ± 1.46. Out of screened amount, 20 infants (7.5%) detected had ROP, 9 (45.0%) in stage 1, 8 (40%) in stage 2 and 3 (15.0%) who underwent laser therapy were in stage 3. All ROP detected infants were born within 28 – 32 weeks and weighted within 0.74 – 1.4 kg. Non-ROP infants MSE were +2.93 ± 1.53 while ROP infants MSE were +2.58 ± 1.25. Eye with laser-treated ROP has lower MSE: +2.42 ± 0.52, comparison with non-laser therapy

MSE: $+2.62 \pm 1.37$. In this study, there is no significant difference in GA ($p = 0.280$), BW ($p = 0.643$) and refractive error ($p = 0.910$) among ROP and non-ROP babies. **Conclusion:** Although the prevalence of ROP in this study

was low (7.5%) and no significant difference of BW/ GA/ refractive status with a presentation of ROP. However, screening and monitoring of these ROP babies need to be continued due to the devastating sequelae of ROP.