ABSTRACT

DIFFERENCE IN OBJECTIVE REFRACTIVE ERROR BETWEEN PRETERM AND TERM BIRTHS IN CHILDREN WITH CORRECTED AGE FROM 6 MONTHS TO 3 YEARS
(Observational Analytic Retrospective Cohort Study at RSUD Dr. Soetomo Surabaya)

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Objective: To analyze the difference in objective refractive error between preterm and term births in children from 6 months to 3 years corrected age in Dr. Soetomo hospital Surabaya.
Methods: This study was an observational analytic retrospective cohort study in children with corrected age from 6 months to 3 years. The children were patients of ophthalmic outpatient clinic Dr. Soetomo hospital from January 2016 to July 2016. The objective refractive error assessment was done using streak retinoscopy. There were total of 82 samples in this study which were grouped into 2 categories. The first group was preterm birth children, further grouped into 3 sub categories namely extremely preterm, very preterm, and moderate to late preterm. The second group was term birth children.
Results: ANACOVA statistical analysis was used. Significant difference in objective refractive error between the preterm birth group and the normal birth group was found, with $p = 0,013$ ($p < 0,05$). Significant difference in objective refractive error between *extremely preterm, very preterm , moderate to late preterm* and normal birth groups was found with $p = 0,034$ ($p < 0,05$).
Conclusions: Gestational age influences the objective refractive error where infants who were preterm tend to be more myopic than those who were term.

Keywords : birth weight, gestastional age, preterm birth, refractive error