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# **Incidence, prevalence and risk factors of Retinopathy of prematurity in Indian scenario-A Systematic review and meta-analysis**

## **ABSTRACT**

### **PURPOSE:**

A systematic review and meta-analysis to evaluate the prevalence, incidence and risk factors of Retinopathy of prematurity among Indian population.

### **METHODS:**

The articles published till December 2020 were identified from different databases such as PubMed, Scopus, Clinical key, BMJ journal and Web of science using specific keywords.

### **RESULTS:**

Two among the included studies reported the prevalence of ROP 19.2% and 31.2%. The pooled incidence of ROP of any type was 24% i.e 0.24 [95% CI: 0.19, 0.30] and that of severe ROP was 10% 0.10 [95% CI: 0.05, 0.16] among Indian population. Meta-analysis done to report the association between gestational age and Retinopathy of prematurity showed that infants with disease had gestational age less than 2 weeks when compared to non-diseased group -2.27 [95% CI: -2.62, -1.92]. Infants with ROP had birth weight less by 2kg when compared to non ROP -0.29 [95% CI: -0.44, -0.14] and infants who were given oxygen therapy greater than 4 days were at a higher risk of developing ROP 3.83 [95% CI: 0.94, 6.72].

**CONCLUSION:**

Considering moderate incidence of Retinopathy of prematurity in India, testing and close regulation on associated risk factors to identify the visual defects and preventing blindness is a must.

**KEYWORDS:**

Incidence, prevalence, risk factors, proportion, Retinopathy of prematurity, Retrolental fibroplasia, premature, infant, neonate, severe ROP, low birth weight, underweight, gestational age.