

Ocular Manifestations in Children with COVID-19: Systematic Review and Meta-Analysis

Nasiri Naser, Sharifi Hamid, Rahimi Tahereh, Sharif Ghodsieh, Sharifi Ali.

Abstract

Introduction: COVID-19 ocular manifestations commonly occur in adults; however, there is limited data on this manifestation in children. This systematic review and meta-analysis investigated the prevalence of ocular manifestations in children. **Methods:** We searched PubMed, Scopus, EMBASE, Web of Science, and MedRxiv from December 1, 2019, to February 3, 2021. Two independent reviewers screened the articles, extracted the data, and assessed the quality of the articles. **Results:** After screening 1,510 articles, 19 were approved and included in the systematic review and meta-analysis. The literature review showed that 89 out of 749 children with COVID-19 had at least one ocular manifestation. The estimated pooled prevalence of ocular manifestations was 8.0% (95% confidence intervals 4.0 – 12.0). The most common symptoms were conjunctival discharge (n = 31, 23.1%), conjunctival congestion (n = 21, 16.0%), eye rubbing (n = 19, 14.2%). **Conclusion:** Ocular manifestations are common in children with COVID-19; one out of 14 infected children shows at least one ocular manifestation. Physicians should pay attention to the ocular manifestations associated with COVID-19 in children.

Keywords: COVID-19, Children, Ocular Manifestations, Conjunctivitis, Systematic Review