Prevalence of ophthalmological abnormalities in children and adolescents with CHD: systematic review and meta-analysis of observational studies.

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Abstract

BACKGROUND: CHDs form a complex and heterogeneous group of clinical entities, with high morbidity and mortality. With the advancement of surgical and invasive techniques and clinical treatment, the survival of these patients has increased significantly, and there are reports of a high prevalence of ocular abnormalities in this group. The objective of this study was to estimate the prevalence of ocular findings in children and adolescents diagnosed with CHD.

METHODS: A systematic search was conducted in the following databases: MEDLINE (via PubMed), EMBASE, and Cochrane CENTRAL, in addition to a manual search on studies published on the patient, from inception until August, 2014. Observational studies assessing the prevalence of ocular abnormalities in children and adolescents with CHDs were included.

RESULTS: Of the 2413 articles identified, eight were included, comprising a total of 1061 patients. Among them, the lowest and highest prevalences observed were 6.3 and 65%, respectively. The weighted average prevalence of ocular abnormalities was 32.5% (CI95% 19.3-49.3). Strabismus, cataracts, and retinopathy were the most frequently observed alterations.

CONCLUSION: The prevalence of ocular abnormalities in children and adolescents with CHDs was 32.5%, demonstrating that ocular consequences are not uncommon in this population and may have relevant clinical impact. These results reinforce the need for ophthalmological evaluation of patients with CHDs.

KEYWORDS: meta-analysis

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