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Review Article

Is dental caries experience increased in HIV-infected children and adolescents? A meta-analysis

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Abstract

Objective. To undertake a systematic review to assess if HIV-infected children and adolescents have an increased dental caries experience. Methods. A search of MEDLINE, BIREME, EMBASE, GOOGLE SCHOLAR, SIGLE (Grey Literature) and reference lists of included studies was carried out. To be eligible the studies had to present HIV-infected and non-infected children/adolescents between 0–18 years old. To assess the methodological quality, the studies were categorized in scores from ‘A’ to ‘C’. To perform a meta-analysis a random effect model was used with 95% confidence intervals and two distinct sub-group analyses were carried out in terms of caries progression: data for cavitated and non-cavitated lesions (sub-group 1) and data only for cavitated lesions (sub-group 2). Results. Five studies fulfilled the selection criteria.

Four studies (two ranked A and two B in the quality assessment) revealed higher caries scores in primary teeth in the HIV-infected patients with mean dmft/dmfs scores of 3.8–4.1/7.8–11.0 compared to the control group 1.5–2.4/3.4–5.1. No differences in caries index were found for permanent dentition. The meta-analysis excluded caries data of permanent teeth and showed a significant association between caries experience in primary dentition and HIV infection considering cavitated and non-cavitated lesions (OR = 2.33, 95% CI = 1.48–3.68) or only cavitated lesions (OR = 2.98, 95% CI = 1.59–5.59). Conclusion. Evidence exists that suggests HIV-infected children/adolescents have an increased caries experience in primary dentition.

Key Words:

child dental caries HIV infections

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