Pacifiers and dental structure as risk factors for otitis media.

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The purpose of the study was to examine the relationship between ear infections and dentition, sucking habits, pacifier sucking and atopic and allergic diseases in a historic cohort survey. The series comprised 944 5-year-old children representing about 3/4 of the whole age cohort. The parents completed a questionnaire that asked for details of the children's ear infections, sucking habits and atopic or allergic diseases diagnosed by a physician. The dental status was examined by the child's own local dentist. The children who had used a pacifier had a greater risk of having recurrent attacks of acute otitis media in their history than those who had not used a pacifier (risk ratio (RR), 1.43; 95% confidence interval (CI), 1.06-1.93; P = 0.02). Mouth breathing was significantly associated with acute otitis media (RR, 1.87; CI, 1.28-2.73; P = 0.01), as was open bite (RR, 1.36; CI, 1.01-1.84; P = 0.04), but no other mode of malocclusion. The population attributable risk of otitis media caused by pacifier amounted to a total of 478 attacks or 0.7 per child. The association between otitis media and the use of a pacifier remained even after adjusting for mouth breathing and the measures of malocclusion. Neither thumb sucking nor atopic eczema showed such an association.

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