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Acute otitis media caused by *Moraxella catarrhalis*: epidemiologic and clinical characteristics.

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BACKGROUND: This study describes the epidemiologic, microbiologic, and otologic features and selected signs and symptoms of acute otitis media (AOM) caused by *Moraxella catarrhalis* and compares them with AOM caused by other bacterial pathogens.

METHODS: Patients aged <5 years with culture-positive AOM from whom a middle ear fluid specimen was obtained and cultured during 1999-2006 were enrolled in the study.

RESULTS: Of a total of 12,799 AOM episodes, 8198 (64%) were culture positive, with isolation of 10,382 pathogens: *Haemophilus influenzae*, 4982 (48.0%); *Streptococcus pneumoniae*, 4450 (42.9%); *M. catarrhalis*, 501 (4.8%); and group A streptococci, 449 (4.3%). The distribution of single versus mixed *M. catarrhalis* infection was significantly different compared with the 3 other pathogens (165 cases [32.9%] as a single pathogen of all *M. catarrhalis* AOM episodes vs 3108 [62.4%] in AOM caused by *H. influenzae*, 2592 [58.2%] in AOM caused by *S. pneumoniae*, and 304 [67.7%] in AOM caused by group A streptococci; $P < .001$ for all comparisons). In multivariate analysis, *M. catarrhalis* AOM was more frequent in patients experiencing their first AOM episode versus recurrent AOM and mixed infections. *M. catarrhalis* AOM was associated with lower proportions of spontaneous perforation of tympanic membrane compared with all other pathogens. None of the AOM episodes caused by *M. catarrhalis* was associated with mastoiditis.

CONCLUSIONS: Compared with AOM caused by other pathogens, AOM caused by *M. catarrhalis* is characterized by a higher proportion of mixed infections, younger age at diagnosis, a lower proportion of spontaneous perforation of the tympanic membrane, and no mastoiditis.

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