Abstract

BACKGROUND: Aspirin intolerant asthma (AIA) is a clinically distinct syndrome characterised by the precipitation of asthma attacks following the ingestion of aspirin and other non-steroidal anti-inflammatory drugs (NSAIDs). The prevalence of AIA among Australian asthmatic patients has not previously been reported.

METHODS: Three populations were surveyed to establish the prevalence of AIA among Australian asthmatics. Two surveys were completed in patients recruited from the metropolitan area in Perth, Western Australia, one comprising 150 recruited from hospital based sources (hospital cohort) and the second comprising 366 from the membership of the Asthma Foundation of Western Australia (Asthma Foundation cohort). In a third study 1298 individuals were randomly selected from the rural community of Busselton in Western Australia.

RESULTS: The prevalence of AIA in the hospital and Asthma Foundation cohorts was found to be 10.7% and 10.4%, respectively. Univariate analyses in the Asthma Foundation cohort indicated that AIA was associated with more severe asthma (OR = 2.4, 95% CI 1.18 to 4.86), nasal polyposis (OR=3.19, 95% CI 1.52 to 6.68), atopy (OR=2.96, 95% CI 1.48 to 5.89), sulfite sensitivity (OR=3.97, 95% CI 1.87 to 8.41), and sensitivity to wine (OR=3.27, 95% CI 1.65 to 6.47). Multivariate analyses indicated that atopy (OR=2.80, 95% CI 1.38 to 5.70), nasal polyposis (OR=3.39, 95% CI 1.57 to 7.29), and the number of asthma attacks in the previous 12 months (OR=1.20, 95% CI 1.02 to 1.42) were independent predictors for AIA, as was wine sensitivity (OR=2.20, 95% CI 1.02 to 4.72). The prevalence of AIA among asthmatic patients in the Busselton cohort was 10.9%. In addition, 2.5% of non-diagnosed asthmatics in this cohort reported asthma symptoms following aspirin ingestion.

CONCLUSION: The prevalence of respiratory symptoms triggered by aspirin/NSAID use was found to be 10-11% in patients with asthma and 2.5% in non-asthmatics. Aspirin sensitivity appears to be a significant problem in the community and further investigations of the mechanisms of these responses and the possible link between this syndrome and other food and chemical sensitivities are required.