



Relationship between pollen counts of *Cryptomeria japonica* and Cupressaceae and the severity of allergic symptoms

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Background: A study throughout 1999 of the airborne pollens of both *Cryptomeria japonica* and Cupressaceae (*Chamaecyparis obtusa* and *Juniperus rigida* in the present study) demonstrated unique patterns of pollen dispersal at three observation sites, namely Okayama and Nishinomiya cities in the Chugoku region and Sakura city in the Kanto region.

Methods/Results: In contrast with the Sakura site, where there was a low pollen count for Cupressaceae, high pollen counts were found at the two sites in Okayama and Hyogo Prefectures. There was a good correlation between results of pollen prick tests and the capsulated hydrophilic carrier polymer radioallergosorbent test (CAP-RAST) for *C. japonica*, *C. obtusa* and *J. rigida*. The fact that a positivity rate of 32.6% to the *J. rigida* pollen skin test was obtained in Sakura city in Chiba Prefecture, where no *J. rigida* pollen dispersal was observed, seems to demonstrate the existence of a common antigen epidemiologically. Daily pollen counts, symptom scores, medication scores and symptom-medication scores of 25 patients with vernal pollinosis in Chiba Prefecture in whom the dose and use of internal and external medication was consistent with the severity of their symptoms, were all significantly related. The efficacy of pharmacotherapy seems to be inadequate when patients are exposed to pollen during a heavy pollen dispersal period without having taken any protection against it. Moreover, there seemed to be a certain critical point beyond which the symptoms rapidly worsened.

Conclusions: These results suggest that it is important to avoid exposure to pollen, based on the regional pollen information, as well as to administer appropriate medication.

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