

学位論文審査結果の要旨

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<p>(学位論文審査結果の要旨)</p> <p>A Murine Model of Food Allergy by Epicutaneous Adjuvant-Free Allergen Sensitization Followed by Oral Allergen Challenge Combined with Aspirin for Enhanced Detection of Hypersensitivity Manifestations and Immunotherapy Monitoring</p> <p>【主論文審査結果の要旨】</p> <p>著者らは論文において下記の内容を述べている。</p> <p>Food allergy is one of the major existing health problems, but no effective treatment is available. In the current work, a murine model that closely mimics pathogenesis of human food allergy and its quantifiable diagnostic parameter design, even for mild hypersensitivity reactions, were established. BALB/c mice were epicutaneously sensitized with 1 mg chicken egg ovomucoid (OVM) or cow's milk casein, free of adjuvants, five times a week for two consecutive weeks. Eleven days later, allergen-specific IgG1 and IgE in serum were measured by ELISA. On day 25, 20 mg OVM or 12 mg α-casein was administered orally, and allergic reactions such as the fall in rectal temperature, symptom scores during 90–120 min, serum mast cell protease-1 and cytokine levels were monitored. The detection of mild allergic reactions due to adjuvant-free allergen sensitization and oral allergen challenge routes was amplified by the combination of oral allergen and aspirin administration simultaneously or aspirin administration within 15–30 min before an allergen challenge. Quantification of the maximum symptom score and the frequency of symptoms during the monitoring period improved evaluation accuracy of food allergy signals. Based on these results, efficacy of casein oral immunotherapy for cow's milk allergies, which are</p>			

generally difficult to detect, was monitored adequately.

ヒト食物アレルギーに即し、アジュバントフリーで経皮感作し経口負荷試験による評価を可能にした、汎用性の高い食物アレルギーモデルマウスについて提唱した論文であり、学術上極めて有益であり、学位論文として価値あるものと認めた。

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