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**Development of Immunological Assay on Chrome-Induced Skin Allergic Sensitization**

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Chrome (VI) is an occupational and environmental toxicant causing allergic response including allergic contact dermatitis. Epidermal application on experimental animals followed by measurement of ear thickness has been adopted to reveal the chrome-mediated dermal allergenicity. Herein, we introduce a rather new method for evaluating the chrome-mediated allergenicity. Sensitization of mice with chrome (VI) was established through intra-dermal injection of emulsion containing 1  $\mu$ mol potassium dichromate in the presence of adjuvant into both flanks. Thereafter, 10 days later, mice were challenged by injecting 70nmol dichromate into pinnae of one ear and vehicle into pinnae of another ear. The increment of ear thickness was determined using ear thickness gauge 48 hour later of the challenge. Then, in vitro BrdU proliferation assay was undertaken using axillary lymph node cells. Number of lymph node cells was significantly elevated at the chrome-sensitized/challenged mice than the the other control mice. Furthermore, proliferation index was approximately two-fold higher at the chrome-sensitized/challenged mice than the the other control mice.

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