

Cimifugin Inhibited Th2-Type Allergic Contact Dermatitis

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Abstract : Objective: Applicate FITC to establish Th2-type allergic contact dermatitis model, and study the effect and mechanism of Cimifugin on Th2-type allergic contact dermatitis. Methods: The Balb/c mice were sensitized with painting 80 ul of 1.5% FITC onto the shaved abdomen skin at DAY1 and DAY2. The animals were challenged on their right ears with 20 ul of 0.6% FITC, and the left ears were painted with solvent alone at day 6, mice were administered cimifugin for 7 days. 24h later, ear swelling was noted, and the infiltration of eosinophils was investigated by hematoxylin and eosin (H&E) staining. while part of the ear tissue homogenates prepared for detecting interleukin-4 levels by ELISA .Mice were administered cimifugin In the initial stage of the above model for 5 days(-1DAY—DAY3), ear tissue were homogenized to detect IL-33 levels by ELISA. Results: Cimifugin 25mg/kg, 50mg/kg inhibited mouse ear swelling, ear histopathology showed that mice given Cimifugin has significantly reduced levels of local tissue fluid exudation, congestion, infiltration of lymphocytes, and other inflammatory conditions compared with the model group. At the same time, it has significantly reduce of Th2 cytokines IL-4 in the mouse ear tissue homogenate. Data of the initial stage shows that 12.5mg/kg, 50mg/kg Cimifugin significantly inhibited IL-33 levels. Conclusion: Cimifugin inhibit FITC-induced Th2-type allergic contact dermatitis, and its mechanism may be related to inhibition of IL-33.

Keywords : cimifugin, allergic contact dermatitis, Th1/Th2, IL-33

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