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Original Article

Purified Aged Garlic Extract Modulates Allergic Airway Inflammation in Balb/c Mice

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Abstract:

Garlic is known as a potent spice and a medicinal herb with broad therapeutic properties ranging from antibacterial to anticancer and anticoagulant. Our previous studies have shown some immunoregulatory effects for aged garlic extract, suggesting a key role for 14-kD glycoprotein of garlic in shifting the cytokine pattern to T helper-1.

In present study, we investigated the effect of 1, 2, and 3 times intraperitoneal injections of aged garlic extract on an established allergic airway inflammation in murine model (BALB/c mice). The garlic extract, isolated by biochemical method, includes proteins precipitation by ammonium sulfate. After injection of the aged garlic extract, IFN- γ , anti allergen specific IgE and IgG1 were measured in lavage and serum by ELISA and histological assessment was performed on the lung tissues.

The results indicated that three-time intra peritoneal injections of the aged garlic extract caused a significant decrease in the hallmark criteria of allergic airway inflammation levels which included eosinophil percentage in lavage, peribronchial lung eosinophils, IgG1 level in lavage and serum, mucous producing goblet cells grade and peribronchial and perivascular inflammation.

Our findings in the present research suggested that aged garlic extract has the potential of attenuation of inflammatory features of allergic airway inflammation in murine model.

Keywords:

[Aged Garlic extract](#) , [Allergic airway inflammation](#) , [IFN \$\gamma\$](#) , [IgG1](#) , [IgE](#) , [Murine model](#)

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