

[PD3-3] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Inhibitory effect of IgE-mediated anaphylactic reaction by *Mentha arvensis* in rats

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This study was undertaken to determine the inhibitory effects of IgE-mediated anaphylactic reaction by *Mentha arvensis* water extract (MAWE). This paper deals with an evaluation of the effect of MAWE on the anti-DNP IgE antibody induced anaphylactic reaction in rats. We also investigated the influence of MAWE on anti-DNP IgE antibody-induced tumor necrosis factor- α (TNF- α) production.

MAWE inhibited passive cutaneous anaphylaxis (PCA) when intravenously, intraperitoneally and orally administered. MAWE dose-dependently inhibited anaphylactic histamine release from RPMC activated by anti-DNP IgE antibody. Moreover, MAWE had an inhibitory effect on anti-DNP IgE antibody induced TNF- α production from RPMC.

These results suggest that MAWE inhibited the IgE-mediated anaphylactic reaction in rats.

[PD3-4] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Inhibitory effect of mast cell-mediated immediate-type allergic reactions in rats by *Perilla frutescens*

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We investigated the effect of aqueous extract of *Perilla frutescens* (Labiatae) (PFAE) on the mast cell-mediated immediate-type allergic reactions. PFAE (0.05 to 1 g/kg) dose-dependently inhibited systemic allergic reaction induced by compound 48/80 in rats. PFAE (0.1 and 1 g/kg) also significantly inhibited local allergic reaction activated by anti-DNP IgE. When PFAE was pretreated at the same concentrations with systemic allergic reaction test, the plasma histamine levels were reduced in a dose-dependent manner. PFAE (0.001 to 1 mg/ml) dose-dependently inhibited the histamine release from rat peritoneal mast cells (RPMC) activated by compound 48/80 or anti-DNP IgE. The level of cyclic AMP in RPMC, when PFAE (1 mg/ml) was added, transiently and significantly increased about 4-fold compared with that of basal cells. Moreover, PFAE (0.001 and 0.01 mg/ml) had a significant inhibitory effect on anti-DNP IgE-induced tumor necrosis factor- α production. These results indicated that PFAE inhibits mast cell-mediated immediate-type allergic reactions in vivo and in vitro.

[PD3-5] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

The Study of Korean Traditional Medicine for Diabetes Mellitus

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In Korea, there are a lot of traditional herbal medicines that were prescribed for Diabetes Mellitus. In order to find antidiabetic agents from Korean traditional medicines, we made Gamibaekhotang (GMBHT) based on Dongyibogam (東醫寶鑑). Gypsum Fibrosum, Anemarrhenae Rhizoma, Glycyrrhizae Radix, Trichosanthis Radix, Liriodopsis Tuber, and Schizandrae Fructus are the ingredients of GMBHT. We found that distilled water extract of GMBHT had hypoglycemic activity. The crude