PC-5

Rubus croceacanthus Leveille inhibits mast cell-mediated immediate-type allergic reactions and tumor necrosis factor-α secretion

Phil-Dong Moon[a,b], In-Young Choi[*,b], Ho-Jeong Na[a,b], Seung-Heon Hong[a], Hyung-Min Kim[b]

[a]*Department of Oriental Pharmacy, College of Pharmacy, Wonkwang University, Iksan, Jeonbuk, 570-749, South Korea*

[b]*Department of Pharmacology, College of Oriental Medicine, Kyung Hee University, Hoegi-Dong, Dongdaemun-Gu, Seoul, 130-701, South Korea*

We studied the effect of *Rubus croceacanthus Leveille* (RCL) on mast cell-mediated anaphylactic reactions. RCL inhibited compound 48/80-induced systemic anaphylactic shock. When RCL was given at concentrations ranging from 0.01 to 1 mg/ml, the histamine release from rat peritoneal mast cells induced by compound 48/80 was reduced in a dose-dependent manner. RCL also inhibited passive cutaneous anaphylaxis activated by anti-dinitrophenyl IgE. In addition, RCL inhibited phorbol 12-myristate 13-acetate and A23187-induced tumor necrosis factor-α secretion from human mast cell line HMC-1 cells. These results indicate that RCL may possess a strong anti-anaphylactic activity.

Key words *Rubus croceacanthus Leveille*; systemic anaphylactic shock; histamine; passive cutaneous anaphylaxis; tumor necrosis factor-α