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[Lab. of Pharmacology]

Effect of TYB-2285 on lung anaphylaxis in actively sensitized rats.

AKIHIKO WATANABE, TAKANARI TOMINAGA, HARUYUKI SHUTOH, HARUKI HAYASHI,
JUN-ICHI TSUJI, AKIHIDE KODA, HIROICHI NAGAI*, YOSHIO KUMAZAWA,
HIDEYO SHIMADA

We examined the effect of TYB-2285 on the acute phase and the late phase of lung anaphylaxis in rats. TYB-2285 (3-30 mg/kg) inhibited antigen-induced bronchoconstriction and thromboxane B₂ production during the acute phase of lung anaphylaxis more potently than ketotifen fumarate (30 mg/kg). TYB-2285 also inhibited the accumulation of neutrophils but not total cells during the late phase of lung anaphylaxis. Hydrocortisone acetate (100 mg/kg p.o.) inhibited the accumulation of total cells as potent as neutrophils.

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Effect of TYB-2285 on passive cutaneous anaphylaxis in rats.

AKIHIKO WATANABE, TAKANARI TOMINAGA, HARUYUKI SHUTOH, HARUKI HAYASHI,
JUN-ICHI TSUJI, AKIHIDE KODA, HIROICHI NAGAI*, YOSHIO KUMAZAWA,
HIDEYO SHIMADA

TYB-2285 (1-30 mg/kg, p.o.) inhibited ovalbumin- and dinitrophenyl-ascaris-induced passive cutaneous anaphylaxis (PCA) in a dose-dependent manner. Moreover, TYB-2285 (3-30 mg/kg, p.o.) inhibited histamine consumption at the PCA site. Unlike cyproheptadine or amlexanox, TYB-2285 (30 mg/kg, p.o.) did not inhibit histamine-, serotonin-, ascites-, compound 48/80-, or A23187-induced capillary permeability. These results demonstrate that TYB-2285 inhibits PCA by inhibiting histamine release, although it does not inhibit capillary permeability.

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[Lab. of Pharmacology]

Immunomodulatory action of levofloxacin on cytokine production by human peripheral blood mononuclear cells

TOMOAKI YOSHIMURA, CHIKAKO KURITA, EISEKI USAMI, TOSHIYA NAKAO,
SHINO WATANABE, JOJI KOBAYASHI, FUTOSHI YAMAZAKI, HIROICHI NAGAI*

Levofloxacin (LVFX) increased interleukin-2 (IL-2) production by peripheral blood mononuclear cells (PBMC) stimulated with phytohemagglutinin (PHA) in a dose-dependent manner. LVFX suppressed granulocyte-macrophage colony-stimulating factor and soluble IL-2 receptor production. LVFX inhibited the production of IL-1 β and Tumor necrosis factor α by lipopolysaccharide-stimulated PBMC. These results show that LEVX has an immunomodulatory action on cytokines production by PBMC independent of its antimicrobial activity.