

[Jpn. J. Allergol., 38, 493 (1989)]

**Anti-allergic action of glucocorticoids. (II) Effect of glucocorticoids on cell mediated (Type IV) allergic reactions.**

HIROICHI NAGAI\*, TAMOTSU TAKIZAWA, NAOKI INAGAKI,  
TATSUO SAKAMOTO, TSUKASA SHIMAZAWA and AKIHIDE KODA.

The effects of three glucocorticoids (steroids; hydrocortisone, prednisolone and dexamethasone) on cell mediated hypersensitivity (type IV) reactions in rats and mice were studied. All the steroids inhibited both the induction and the effector phase of type IV reaction induced by sheep red blood cells (SRBC) in mouse footpads. The local graft vs host reaction induced by lymphocytes from Brown Norway rats into the footpads of (Lewis×Brown Norway) F<sub>1</sub> rats was also clearly inhibited by steroids. Moreover, the anti type IV reaction mechanisms of glucocorticoids were analyzed *in vivo* and *in vitro*.

[J. Pharmacobio-Dyn., 12, 517 (1989)]

**Pharmacological study of Phospholipase A<sub>2</sub>-induced histamine release from rat peritoneal mast cells.**

SOO HYUNG CHOI, TATSUO SAKAMOTO, OSAMU FUKUTOMI, NAOKI  
INAGAKI, NAOSUKE MATSUURA, HIROICHI NAGAI\* and AKIHIDE KODA,

The effect of some drugs on phospholipase A<sub>2</sub> (PLA<sub>2</sub>)-induced histamine release from rat peritoneal mast cells was investigated. PLA<sub>2</sub> (*Naja naja*) caused the release of histamine from rat mast cells in a dose related fashion. The release of histamine by PLA<sub>2</sub> was decreased by the removal of each of calcium and glucose from the reaction medium. PLA<sub>2</sub> inhibitors, calcium channel blockers and anti-allergic agents inhibited the release of histamine by PLA<sub>2</sub>. When glucocorticoids were administered prior to the harvest of the mast cells, the amount of histamine released from the mast cells by PLA<sub>2</sub> *ex vivo* was decreased.

[Inflammation, 13, 401 (1989)]

**Pathological studies on nephrotoxic serum nephritis accelerated with rabbit  $\gamma$ -globulin in mice.**

TAKASHI NOSE, KAITO TSURUMI, KENGI KAWADA, HIROICHI NAGAI\*,  
HIROAKI YAMADA, IKUHISA YAKUO, AKITSUGU OJIMA and AKIHIDE KODA.

In order to characterize nephrotoxic serum nephritis accelerated with rabbit  $\gamma$ -globulin in mice, histopathological studies were carried out 15 days after NTS injection, the time when increases in urinary protein and serum cholesterol and a decrease in serum albumin were apparent. As a result, it appears this nephritic model shares a common pathology with human membranoproliferative glomerulonephritis type I and crescentic glomerulonephritis and can be considered an appropriate model for producing severe nephritis for short periods.