

[Japan. J. Pharmacol., 49, 423 (1989)]

Mechanisms of antitumor activity of aqueous extracts from chinese herbs: Their immunopharmacological properties.

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Previously we reported that *A. capillaris* shows antitumor activity mainly through a direct tumoricidal action and *S. doederleinii*, *A. macrocephala* and *S. subprostrata* display the activity through the enhancement of tumor-immune response. In the present results, *A. capillaris* did not affect Meth A tumor-neutralizing activity (Winn's assay) in spleen cells of BALB/c mice bearing the primary tumor. The other herbs enhanced the activity. None of them enhanced the local GvHR induced in CBF₁ mice by spleen cells of BALB/c mice. The 3 herbs other than *A. capillaris* enhanced humoral immune response against sheep erythrocytes in mice. The effect of these herbs was also examined on blast transformation of murine lymphocytes with PHA-P or LPS *in vitro*.

[Prostaglandins Leukotrienes and Essential Fatty acid, 35, 125 (1989)]

The role of thromboxane A₂ (TxA₂) in allergic cutaneous reactions and the effect of (E)-3-[p-(1H-imidazole-1-ylmethyl)phenyl]-2-propenoic acid hydrochloride (OKY-046), a TxA₂ synthetase inhibitor.

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To study the role of thromboxane A₂ (TxA₂) in cutaneous allergic reactions, the effect of OKY-046, a selective TxA₂ synthetase inhibitor, on cutaneous reactions in rats and mice was studied. Simultaneously, the effect of 9,11-methanoepoxy-prostaglandin H₂ (U-46619), a stable analogue of TxA₂, on capillary permeability in mouse and rat skin was investigated. The results obtained suggest a slight role of TxA₂ in cutaneous allergic reactions in mice and rats and the efficacy of OKY-046 on Type I and II reactions regardless of the inhibition of TxA₂ synthetase activity.

[Planta Medica, 55, 13 (1989)]

The effect of Gomisin A on immunologic liver injury in mice.

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The hepatoprotective effect of Gomisin A (TJN-101), which is a lignan compound isolated from Schizandra fruits, was studied on three immunologic liver injury models in mice. TJN-101 inhibited the elevation of transaminase (GOT and GPT) activities and showed the tendency to inhibit the histopathological changes of the liver in all models. Moreover, TJN-101 inhibited deoxycholic acid-induced release of transaminase from cultured rat hepatocytes, but did not affect the formation of hemolytic plaque forming cells in mice spleen and hemolytic activity of guinea pig complement in immunohemolysis reaction. The results suggested that the hepatoprotective effect of TJN-101 could be related to the protecting effect of hepatocyte plasma membrane.