

Sir,

## CORTICOSTEROIDS AND EXPERIMENTAL ALLERGY.

Corticosteroids have been found to be useful in the treatment of clinical allergic states (4), but the effect in experimental allergy is controversial (3,5).

In the recent years many potent compounds with glucocorticoid activity have been synthesised. We have studied the effects of some of these compounds like triamcinolone, betamethasone, dexamethasone and depersolon as well as the older compound, hydrocortisone on the production of anaphylactic shock in the rat and the mouse.

The animals were sensitised with horse serum along with *Bordetella Pertussis* vaccine and challenged 12- 14 days later with horse serum alone (2,6) . The corticosteroids were administered 18 hours and 2 hours before the injection of the challenging dose. The anaphylactic shock on challenge in animals which did not receive any corticosteroid was very severe with 100% mortality in both the species.

Dexamethasone (7.5 mg/kg) and triamcinolone (25 mg/kg) protected the mouse against anaphylactic death ( $p=0.05$ ). Betamethasone (15 mg/kg), dexamethasone (15 mg/kg) and depersolon (10 mg/kg) protected the rat against fatal anaphylactic shock ( $p=0.05$ ). Thus it was seen that in relatively higher doses the newer corticosteroids possessed antianaphylactic activity. It has been reported that depersolon protects the guinea-pig against anaphylactic shock (5).

The corticosteroids failed to prevent the uptake of anaphylactic antibodies by virgin rat uterus *in vitro*. The precipitin and complement fixation tests were not influenced by the presence of corticosteroids. The release of histamine or 5-HT as well as the sensitivity of tissues to these substances and bradykinin were not significantly affected in the presence of corticosteroids.

The increase in capillary permeability on local injection of the antigen as evidenced by accumulation of Evan's blue given intravenously (7) was also unaffected by such pretreatments.

The mechanism of protective action of the corticosteroids is obscure. It seems that they do not influence the processes involved in anaphylaxis and their protective effect may be related to a non-specific tolerance of the shock like state (1).

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