

100. EFFICACY OF VARIOUS CORTICOSTEROID REGIMENS IN TREATMENT OF T-2 TOXIN ACUTE POISONING IN RATS

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The principal goal of this investigation was to find out the optimal treatment for acute intoxication with T-2 toxin, a trichothecene mycotoxin obtained from *Fusarium* species. Males Wistar rats weighing 220-250 g were poisoned with increasing single doses T-2 toxin sc in order to register 24 or 72-hour mortality rate. After calculating median lethal doses (LD₅₀) in treated and not treated animals, protective indices were obtained.

Among the potential antidotes investigated, corticosteroids after 24 h exerted best protective indices (PIs) - 3.37, 2.14 and 2.78 in rats treated with dexamethasone 20 mg/kg sc, dexamethasone 0.8 mg/kg im and methylprednisolone 30 mg/kg ip, respectively. The two greatest PIs were obtained after the total corticosteroid dose was divided in four equal doses and administered 24, 18 and 1 h before, and 6 h after the intoxication. Only the small dose of dexamethasone was injected im immediately after T-2 toxin.

Both corticosteroids drastically reduced T-2 toxin-induced increase in serum activities of aspartate and alanine aminotransferase, alcohol and lactate dehydrogenase, and creatine kinase indicating alleviation of tissue and cellular lesions.

In a separate set of experiments rats received methylprednisolone 20, 40 or 80 mg/kg sc (each dose as soluble, depot, or both, in halved doses) immediately after the toxin. The PIs 72 h after methylprednisolone 40 mg/kg were the highest - about 2.5, with no significant differences among the soluble, depot and combined regimen. The other two doses afforded significantly lower PIs of about 1.5 and 2, respectively.

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