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论文

95%灭菌丹原药对大鼠经口毒性试验研究

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摘要：

目的 确定95%灭菌丹原药对SD大鼠的毒性作用，并探寻其可能的毒性靶器官。方法 将80只SD大鼠随机分成4组，各组灭菌丹剂量为0、4 000、8 000及16 000 mg/kg饲料。试验结束后检测动物血常规及生化指标，对解剖动物脏器进行组织病理学评价。结果 试验期间，中、高剂量灭菌丹组大鼠体重均明显降低（$P<0.05$）。与对照组比较，中、高剂量灭菌丹组大鼠血液中性粒细胞百分率升高，差异均有统计学意义（$P<0.05$）；雄鼠中、高剂量组脑、心脏、脾脏、肝脏、肾脏及肾上腺的绝对重量均高于对照组（$P<0.05$）；中、高剂量灭菌丹组大鼠前胃粘膜下水肿及炎性细胞浸润的发生率均明显高于对照组（$P<0.05$）。结论 在本试验条件下，前胃是95%灭菌丹潜在的毒性靶器官，该农药的最大无作用剂量为4 000 mg/kg饲料。

关键词： 灭菌丹 靶器官 前胃 黏膜下水肿 暴露风险

Toxicity of 95% captan in rats: an oral toxicity test

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Abstract:

Objective To observe the toxic effects of 95% captan and to determine its possible target organ in Sprague Dawley(SD)rats.Methods Eighty SD rats were randomly divided into four groups and administered feeds containing 0(control),4 000,8 000,and 16 000 ppm of captan for 13 weeks.At the end of the study,the blood samples of the rats were collected for hematology and serum biochemistry analyses and tissues of organs were routinely prepared and stained with hematoxylin and eosin for histopathological examination.Results During the experiment,the body weight of the rats in midium and high dose group was significantly lower than that of the control group($P<0.05$),and the percentage of neutrophil was increased with statistical significance compared to those of the control group;the absolute organ weights of brain,heart,spleen,liver,kindey and adrenal glands in high dose group were significantly increased compared to those of the control group($P<0.05$ for all).The incidence of the edema of forestomach submucosa and inflammatory cell infiltration were significantly higher than those of the control group($P<0.05$).Conclusion Based on the study,forestomach is potential toxic target organ of 95% captan.The maximum no-effect dose of captan is estimated to be 4 000 ppm.

Keywords: captan target organ forestomach submucosa edema exposure risk

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