

论著

## 丁酮肟及酰胺磷定对大鼠血液中梭曼消除的影响

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**摘要** 采用乙酰胆碱酯酶抑制法测定大鼠血液中梭曼残留浓度, 考察了丁酮肟(DAM)及酰胺磷定(HI-6)对大鼠血液中梭曼消除的影响. 结果表明,  $415 \mu\text{g} \cdot \text{kg}^{-1}$ 梭曼( $5 \text{LD}_{50}$ ) iv后3 min, DAM预处理有加速梭曼在大鼠血液中消除的趋势, 使血中梭曼浓度由  $(86 \pm 22) \mu\text{g} \cdot \text{L}^{-1}$ 下降到  $(53 \pm 9) \mu\text{g} \cdot \text{L}^{-1}$ , 这可能与DAM加速了大鼠体内主要解毒器官中乙酰化羧酸酯酶(CaE)的脱乙酰化速率有关, 使有限的酶分子结合了更多的梭曼. 相比之下, HI-6预处理则对大鼠血液中梭曼浓度没有明显影响. 提示在大鼠体内, CaE对梭曼的解毒作用比胆碱酯酶更为重要.

**关键词** [梭曼](#) [羧酸酯酶](#) [胆碱酯酶](#) [重活化剂](#) [丁酮肟](#) [酰胺磷定](#) [代谢解毒, 药物](#)

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## Effects of diacetylmonoxime and HI-6 on soman clearance from blood in rats

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### Abstract

The effects of both carboxylesterase reactivator, diacetylmonoxime(DAM) and cholinesterase reactivator, HI-6 on the disappearance of soman from blood in rats intoxicated with soman( $415 \mu\text{g} \cdot \text{kg}^{-1}$ ,  $5 \text{LD}_{50}$ , iv) were studied using electric eel acetylcholinesterase-based microassay. In rats pretreated with DAM the soman concentration was significantly reduced during 3–10 min, which might be partly due to its reactivation of carboxylesterase in detoxifying organs, and thereby increased efficacy of endogenous detoxifying enzymes. By contrast, HI-6 had negligible effects on soman clearance from blood in rats. It suggests that carboxylesterase is more important than cholinesterase in soman detoxification in rats.

**Key words** [soman](#) [carboxylesterase](#) [cholinesterase](#) [reactivator](#) [diacetylmonoxime](#) [pyramidoxime](#) [metabolic detoxication](#) [drug](#)

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