论著

三氯生对大鼠脂肪代谢的影响

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摘要 目的 探讨三氯生对大鼠脂肪代谢的影响。方法 给SD大鼠三氯生按50、150及250 mg·kg⁻¹剂量ig,每天 1次,连续5周,测定血清、肝脏和脂肪组织甘油三酯(TG)含量及肝脏和脂肪组织脂肪酸合酶(FAS)活性,并进行肝脏组织切片染色检测脂肪颗粒含量。结果 三氯生可明显抑制肝脏和脂肪组织FAS活性,使脂肪合成受到影响,血清、肝脏、脂肪组织TG含量均减小。同时三氯生也可使大鼠的日平均进食量减少。结论 三氯生不仅可抑制细菌脂肪酸合成,而且对大鼠脂肪合成也起抑制作用。

关键词 三氯生 肝 脂肪组织 脂肪酸合酶

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Effects of triclosan on fat metabolism in rats

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Abstract

AIM The effects of triclosan (2,4,4'-trichloro-2'-hydroxydiphenyl ether) on fat metabolism in rats were observed. **METHODS** Various concentration of triclosan (50, 150, 250 mg·kg⁻¹, ig) was given daily for five weeks. The liver and adipose tissue were examined by biochemical analysis of triglyceride and fatty acid synthase(FAS) activity and image analysis of liver slice stained with Sudan IV. **RESULTS** Triclosan decreased FAS activity in liver and adipose tissue, inhibited fatty acid synthesis, and lowered triglyceride of serum, liver and adipose tissue. Pathology examination of liver supported this result. In the meantime, we found triclosan resulted in decreasing food intake in a dose-dependent manner. **CONCLUSION** The results suggest triclosan inhibit fatty acid synthesis in liver and adipose tissue and affect the fat metabolism in mammal animal rats.

Key words triclosan liver adipose tissue fatty acid synthase

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