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Liver Function and Structure in Rats Treated Simultaneously with Cadmium and Mercury

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ABSTRACT

The effect of cadmium chloride (150 mg/l) and mercury (II) chloride (80 mg/l) either alone or in combination in drinking water for 4 weeks on function and structure of the liver of male rats was studied. Results indicated that the ratio of liver weight to body weight and the activities of serum alanine aminotransferase, aspartate aminotransferase and alkaline phosphatase noted in rats co-exposed to cadmium and mercury were intermediate between those noted in the individually metal treated rats. The histopathological study showed that the individual metal and the combined metal treatments caused severe liver damage. The degree of these changes noted in rats co-exposed to cadmium and mercury was not higher than those signalized in individual treatment. The biochemical and the histological changes observed in rats co-exposed to cadmium and mercury show that there is not an additive effect between these two metals.

KEYWORDS

Cadmium; Mercury; Liver Toxicity; Rat

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