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Death Caused by Ethanol and Diazepam in a Patient with Liver Cirrhosis

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Abstract

We present an autopsy case of a patient with liver cirrhosis and relatively high concentrations of ethanol and diazepam and its metabolites. Quantitative toxicological analysis showed that concentrations of diazepam and its metabolites (nordiazepam, temazepam and oxazepam) in femoral blood were 0.078 μg/ml, 0.136 μg/ml, 0.011 μg/ml, 0.004 μg/ml, respectively, while the concentration of ethanol was 280 mg/dl. We concluded that the cause of death was combined intoxication by ethanol and benzodiazepines. The present case indicates that delays in metabolism and decreased protein binding may increase the sensitivity to drugs and ethanol in patients with cirrhosis.

Keywords: liver cirrhosis, diazepam, pharmacological active metabolite

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