

Effect of a dose of ethanol on acute tolerance and ethanol consumption in alcohol drinker(UChB) and non-drinker (UChA) rats

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Acute tolerance that develops within minutes of ethanol exposure appears to influence the apparent acute behavioral sensitivity of laboratory animals to ethanol actions. The existence of a correlation between voluntary ethanol consumption and the speed of acquiring acute tolerance has been proposed. In the present paper we investigated the effect of an acute dose of ethanol on tolerance development and on ethanol voluntary consumption in our two selected bred strains, UChA (low ethanol drinker) and UChB (high ethanol drinker) rats. Acute tolerance developed to motor impairment induced by a dose of ethanol of 2.3g/kg. administered intraperitoneally was evaluated by the tilting plane test. Voluntary ethanol consumption was compared in rats receiving the ethanol dose, to rats receiving a saline intraperitoneal (i.p.) injection. The results show that UChB rats receiving an intoxicating dose of ethanol develop more tolerance and they significantly increased their ethanol consumption compare