

Effect of diet and disulfiram on acetaldehyde blood levels after ethanol in UChA and UChB rats

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Acetaldehyde (AcH) levels in blood samples taken from different zones of the vascular system 2 h after a p.o. dose of ethanol (2.76 g/kg) were studied in UChA (low ethanol consumer) and UChB (high ethanol consumer) rats fed a diet devoid of animal products, diet 1 (D1), and a diet containing fish meal, diet 2 (D2), and in rats pretreated with disulfiram (600 mg/kg p.o.). The results showed that, while there is no significant difference between UChA and UChB rats fed D1 with respect to blood AcH levels and the basal activity of the hepatic mitochondrial high-affinity aldehyde dehydrogenase (AIDH), a significant strain difference was observed in rats fed D2, which induced high blood AcH levels in UChA rats but not in UChB ones. No strain differences were observed in blood ethanol levels in the two groups of rats. When rats fed D1 were pretreated with disulfiram, the raising of AcH blood levels induced by ethanol after disulfiram was significantly higher in UChA than in UChB rats in supra