

Effects of fluoxetine on ethanol withdrawal syndrome in rats I. Tayfun Uzbay, Esra Saglam, Hakan Kayir, Turgay Celik, Mansur Beyazyurek

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Abstract

The present study was designed to investigate the effects of fluoxetine, a selective serotonin reuptake inhibitor, on ethanol withdrawal syndrome in rats. Adult male Wistar rats (218–255 g) were subjects. Ethanol (7.2%, v/v) was given to rats by a liquid diet for 21 days. Control rats were pair fed an isocaloric liquid diet containing sucrose as a caloric substitute to ethanol. Fluoxetine (2.5, 5 and 10 mg/kg) and saline were injected to rats intraperitoneally just before ethanol withdrawal. After 2nd, 4th and 6th hour of ethanol withdrawal, rats were observed for 5 min, and withdrawal signs that included locomotor hyperactivity, agitation, stereotyped behavior, wet dog shakes and tremor were recorded or rated. A second series of injections was given at 6 h after the first one, and subjects were then tested for audiogenic seizures. Fluoxetine produced some dose-dependent and significant inhibitory effects on all the signs of ethanol withdrawal during ethanol withdrawal period. Our results suggest that acute fluoxetine treatment has some beneficial effects on ethanol withdrawal in rats. Thus, this drug may be useful for treatment of ethanol withdrawal syndrome.
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