

# Effects of venlafaxine on ethanol withdrawal syndrome in rats

Sağlam, E., I.T. Uzbay, H. Kayir, T. Çelik ve M. Beyazyürek, *Fundamental and Clinical Pharmacology*, 18, 693-696, (2004).

## ABSTRACT

The present study was designed to investigate the effects of venlafaxine, a serotonin and noradrenaline reuptake inhibitor (SNRI), on ethanol withdrawal syndrome in rats. Adult male Wistar rats (187-319 g) were used for the study. 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. Venlafaxine (5, 10, 20 and 40 mg/kg) and saline were injected to rats intraperitoneally just before ethanol withdrawal. After the 2nd, 4th and 6th hour of ethanol withdrawal, rats were observed for 5 min, and withdrawal signs that included locomotor hyperactivity, agitation, stereotyped behaviour and wet dog shakes were recorded or rated. A second series of injections was given at the 6th hour after the first one, and rats were then tested for audiogenic seizures. Venlafaxine produced some inhibitory effects on locomotor hyperactivity, stereotypic behaviours and wet dog shakes. However, a two-way ANOVA of the data did not indicate any significant effect. It reduced the incidence of the audiogenic seizures at the 6th hour of ethanol withdrawal. Venlafaxine (20 mg/kg) also prolonged the latency of the seizures significantly. Our results suggest that acute venlafaxine treatment has limited beneficial effects on ethanol withdrawal syndrome in rats.