

Poster presentation

## Effect of venlafaxine on maximal electroshock induced seizures in mice

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### Background

Venlafaxine is a structurally novel phentylethylamine antidepressant drug. It blocks the synaptosomal uptake of noradrenaline and serotonin and, to a lesser degree, of dopamine.

Venlafaxine has been found effective in animal models, healthy human volunteers, and patients for treatment of various pain syndromes. Most of the antidepressants known to reduce convulsive threshold. The present study was designed to investigate the effect of venlafaxine on convulsive threshold by using maximal electroshock (MES) model in mice.

### Materials and methods

First convulsive current 50 value to produce seizures was found. Then venlafaxine was given either 30 minutes before MES intraperitoneally at doses of 25–100 mg/kg or 100 mg/kg for 4 weeks.

### Results

Convulsive current 50 value was 46 mA. Venlafaxine decreased the threshold of MES dose dependently. Chronic venlafaxine administration completely blocked seizures.

### Discussion

The results of the present study shows a clinical importance of choosing an antidepressant in epileptic patients. Venlafaxine, an antidepressant which inhibits reuptake of both serotonin and norepinephrine, has beneficial effects on convulsions.