

Original Article

Responses to aqueous leaf extract of *Luffa aegyptiaca* mill on mefloquine-induced seizure in rat using open field test

Lekpa K. David, Hakeem B. Fawehinmi, Amadi O. Ihunwo

ABSTRACT

Neuro-behavioural responses to *Luffa aegyptiaca* mill on mefloquine-induced seizure was investigated in rats. Twenty five male Wistar rats (190-250 g) were assigned into 5 groups with five rats per group, namely; control group, mefloquine group only (seizure, 4.28 mg/kg), mefloquine and then diazepam (seizure + diazepam, 5 ml/kg), mefloquine and then low dose *Luffa aegyptiaca* mill group (seizure + low dose *Luffa*, 400 mg/kg), and mefloquine and then high dose of extract (seizure + high dose *Luffa*, 1200 mg/kg). Doses of mefloquine and *Luffa* extract were administered to the rats according to their body weight. After thirty (30) minutes of administration, each rat was placed subsequently in the centre platform of the open field and then observed for five (5) minutes. Line crossing, central square entry, central square duration, stretch attends posture, number of faecal droppings, urination, grooming, and frequency of rearing were recorded with a video camera. Precaution was taken to ensure that no external stimulus evoked anxiety in the rat. Line crossing and rearing were significantly lower in the MFQ group than those of the control and other treated groups. No significance difference was observed between control and treated groups for centre square entry, centre square duration and grooming. There was significant difference for stretch attend posture, freezing time, urination and defecation between control and other groups. Increased line crossing shows anxiety reduction in the open field. Hence these results do suggest that aqueous extract of leaf of *Luffa aegyptiaca* mill can revoke anxiety in rats.

Keywords: *Luffa aegyptiaca* mill, Anxiety, Aqueous extract, Mefloquine, Open field test
