

Involvement of monoaminergic system in the antidepressant-like effect of aqueous extract of *Channa striatus* in mice

ABSTRACT

BACKGROUND: In our previous study, the aqueous extract of *Channa striatus* (family: Channidae) fillet (AECSF) showed an antidepressant-like effect in mice. However, the mechanism of the antidepressant-like effect is unknown. **AIM:** The objective of this study was to explore the involvement of monoamines in the antidepressant-like effect of AECSF in mice. **MATERIALS AND METHODS:** AECSF was prepared by steaming the fillets of *C. striatus*. The male ICR mice were pretreated with various monoaminergic antagonists viz., p-chlorophenylalanine (100 mg/kg, i.p.), prazosin (1 mg/kg, i.p.) and yohimbine (1 mg/kg, i.p.), SCH23390 (0.05 mg/kg, s.c.) and sulpiride (50 mg/kg, i.p.) followed by treatment with AECSF and tested in tail suspension test (TST). Two-way ANOVA with Tukey test were used at $p < 0.05$ for significance. **RESULTS:** The pretreatments with p-chlorophenylalanine, prazosin and yohimbine, but not with SCH23390 and sulpiride, were able to reverse the antidepressant-like effect of AECSF in TST. **CONCLUSIONS:** The antidepressant-like effect of AECSF may be mediated through the serotonergic and noradrenergic systems and not through the dopaminergic system.

Keyword: *Channa striatus*; Dopamine; Noradrenaline; Serotonin; Tail suspension test