

Antinociceptive, antiinflammatory and antipyretic properties of *Channa striatus* fillet aqueous and lipid-based extracts in rats.

Abstract

The present study was carried out to elucidate the antinociceptive, antiinflammatory and antipyretic properties of the aqueous and lipid-based extracts of *Channa striatus* fillet in rats. The antinociceptive activity was assessed using the formalin test, and the antiinflammatory and antipyretic activities were assessed using the carrageenan-induced paw edema and brewer's yeast-induced pyrexia tests, respectively. Both types of extracts were prepared in concentrations of 10%, 50% and 100% by serial dilution in distilled water or dimethyl sulfoxide, respectively, and were administered subcutaneously 30 min prior to each test. Except for the 10% aqueous extract which exhibits activity only in the early phase, the extracts were found to exhibit significant ($P < 0.05$) activity in the early and late phases of the formalin test. Furthermore, the aqueous and lipid-based extracts were also found to show significant ($P < 0.05$) antiinflammatory activity, with the former showing a greater effect at the lowest concentration used. The lipid-based, but not the aqueous, extract was found to have significant ($P < 0.05$) activity in the pyrexia test. In conclusion, the present study demonstrated that *C. striatus* extracts possess antinociceptive, antiinflammatory and antipyretic activities.

Keyword: Antiinflammatory activity; Antinociceptive activity; Antipyretic activity; *Channa striatus* extracts