

## ABSTRACT

Present study was aimed to evaluate the antidiarrhoeal effect of aqueous and ethanolic extract of fruit pulp of *Terminalia belerica* at the doses of 334 mg/kg, 200 mg/kg, 143 mg/kg, in castor oil induced diarrhoea, PGE<sub>2</sub> induced enteropooling and gastrointestinal motility test. Diarrhoea was induced in rats by the administration of 1 ml of castor oil. Percentage protection in castor oil induced diarrhoea by aqueous and ethanolic extract at 300 mg/kg was 73.37 and 63.58 respectively. In PGE<sub>2</sub> induced enteropooling 100  $\mu$ g/kg of PGE<sub>2</sub> was administered to rats showed very significant antienteropooling effect produced by both the extracts. In gastrointestinal motility test, 1 ml of charcoal was administered. Percentage protection of 334 mg/kg of aqueous extract and ethanolic extract was 67.20 and 68.27 respectively. Comparison of percentage protection in all the three model revealed that the extracts have more prominent antisecretory effect than the reduction in gastrointestinal motility. Only high doses of both the extracts showed very significant action in castor oil induced diarrhoea and gastrointestinal motility test but in PGE<sub>2</sub> induced enteropooling the proportion of antidiarrhoeal effect was not same as the proportion in which the dose increased. The antidiarrhoeal effect of both the extracts might be due to the presence of tannins, flavanoids and alkaloid and these phytoconstituents might be stimulating the reabsorption and/or antisecretory effect in the intestinal lumen as well as significantly enhancing intestinal transit time and intestinal motility decreased.

**Key words:** Antidiarrhoeal effect, *Terminalia belerica*, castor oil induced diarrhoea, PGE<sub>2</sub> induced enteropooling, gastrointestinal motility test.