



Antioxidant, Antidiarrhoeal and Cytotoxic Properties of *Punica granatum* Linn.

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SUMMARY. The present study was designed to investigate antioxidant, antidiarrhoeal and cytotoxic potential of hydromethanolic extract of the fruit rind of *Punica granatum* Linn. A dose dependent scavenging of DPPH radical and NO was observed with significant total antioxidant capacity with the plant extract in 1, 1-diphenyl-2-picrylhydrazyl (DPPH) radical scavenging, total antioxidant capacity and nitric oxide (NO) scavenging assays. The extract was also studied for antidiarrhoeal property using castor oil and Mg-SO₄-induced diarrhoeal model, and charcoal induced gastrointestinal motility test in mice. At the doses of 200 and 400 mg/kg body weight, the extract reduced the frequency and severity of diarrhoea in test animals throughout the study period. At the same doses, the extracts significantly ($p < 0.001$) delayed the intestinal transit of charcoal meal in test animals as compared to the control. The extract also displayed strong cytotoxic potential with LC₅₀ value of 10 µg/ml in brine shrimp lethality bioassay.

KEY WORDS: Antioxidant, antidiarrhoeal, cytotoxicity, DPPH, *Punica granatum*.

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