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Antioxidant and anticancer activities of *Trianthema portulacastrum* Linn

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Abstract

In the present study, aerial part of plant *Trianthema portulacastrum* which belongs to the family Aizoaceae was evaluated for antioxidant and anticancer activities. Preliminary screening of phytochemicals showed the presence of steroids, alkaloids, terpenoids, flavonoids and phenols. The antioxidant activity of the plant extract was evaluated by 2,2-diphenyl-1-picrylhydrazyl (DPPH) assay, reducing power determination, superoxide anion and nitric oxide radical scavenging activities. Colorimetric MTT assays were used for determination of total flavonoid and phenolic contents for anti-proliferative activity estimation against MCF-7 breast adenocarcinoma and HT-29 human colon adenocarcinoma cancer cell lines. The antioxidant activity of the extract was significantly high. Phenolic content was 9.7 mg GAE/g while flavonoid content was 20.8mg Rutin/g. The alcohol extract of *Trianthema portulacastrum* has shown significant anticancer activity.

Key words: Anticancer, Antioxidants, *Trianthema portulacastrum*

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