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Anti-proliferative potential and total flavonoid content of methanol extract and partitioned fractions of *Elytranthe parasitica* (L.) Danser

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Elytranthe parasitica (L.) Danser belonging to the family Loranthaceae is a semi parasitic plant that commonly grows on peepal, mango and neem tree. Preliminary phytochemical screening revealed the presence of phytoconstituents such as carbohydrates, phytosterols, tannins, phenolic compounds, saponins, proteins and flavonoids in *E. parasitica*. In the current study, we have evaluated the anti-proliferative potential of *E. parasitica* extract and partitioned fractions in HCT-116 colorectal adenocarcinoma by MTT [3- (4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide] assay. Also the total flavonoid content in *E. parasitica* extract and partitioned fractions was assessed by Aluminium Chloride Colorimetric Method. We observed the methanol extract of *E. parasitica* to exhibit potent anti-proliferative activity against HCT-116 cells (IC50=101.45±1.34). The diethyl ether and ethyl acetate fractions demonstrated very strong anti-cancer activity against HCT-116 with an IC50 of 38.04±3.6 and 50.54±4.59 respectively. Among the partitioned fractions, ethyl acetate fraction reported the highest flavonoid content (22.48±1.51 mg quercetin equivalent/g plant extract). Flavonoids in general have been credited with remarkable anticancer activity; hence we presume the potent anti-proliferative activity of *E. parasitica* extracts and fractions against HCT 116 colon cancer cell line maybe due to its high flavonoid content. As such it could be developed as a therapeutic option for treatment of colorectal cancer. Further studies are worthwhile to determine other active principles and their mode of action.

Biography

Nimmy Kumar is currently pursuing her PhD at Manipal College of Pharmaceutical Sciences, Manipal University, India. Her areas of interest include phytochemistry and isolation and purification of natural products.

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