Antiproliferative and Antimicrobial activity of Vitis vinifera Seed Extract

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ABSTRACT

The medicinal and nutritional value of grapes has been heralded for thousands of years. Apart from the fruit grape seeds are believed to have antioxidant property due to its high polyphenol content. Hence the present study was designed to analyse the antiproliferative and antimicrobial activity of the seed extract of black variety of grapes. Phytochemical analysis of the methanolic extract of the seed showed the presence of steriods, tannins, proteins, phenols, terpenoids, cardiac glycosides and alkaloids. The extract also showed significant antimicrobial activity against selected bacterial and fungal species. The antiproliferative activity was determined by MTT assay. It was carried out using Hep G2 cell line. The result of the experiment showed that the seed extract decreased cell viability as the concentration was increased. The results of the present study shows that grape seed is rich in phytochemicals and may be considered as an effective agent against microorganisms and tumour cells.

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