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Abstract

The Effect of Cumin on HL60 Cell Line †

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Abstract: Cancer is one of the most debilitating and traumatic diseases of modern life, for which no curative approach is presently available. Even though the recent therapies used to treat patients with various types of cancer have not been completely effective, adjuvant therapies, including the use of medicinal plants, may have some effect in achieving cancer treatment goals. Cumin has also been widely used in traditional medicine to treat a variety of diseases, including hypolipidemia, cancer, and diabetes. We used cumin in different concentrations to observe effect of cumin on HL60 cell line. We used MTT cell viability test to investigate cytotoxic effect of cumin. We made experiment for 24, 48 and 72 h and we incubate our cumin exposed drug 37 °C in CO_2 incubator. According to MTT results we found IC50 values for cumin 8.5 mg/mL for 72 h incubation. Generally, cancer cells show drug resistant to especially chemical drugs. Use of plant derived substances may reduce drug resistant on cancer cells. Especially if we use cumin combine with chemical drug, probably we will observe more toxic effect on cancer cell. Because combination effect will reduce drug resistant.

Keywords: cumin; cancer; HL60 cell line; MTT test