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P86. HYPERICIN INDUCED CHANGES IN CYTOTOXICITY AND METABOLIC ACTIVITIES IN HT-29 ADENOCARCINOMA CELLS

Aysun Kılıç SÜLOĞLU, Güldeniz SELMANOĞLU

Department of Biology, Faculty of Science, Hacettepe University, 06800, Beytepe Campus, Ankara, Turkey

Photodynamic therapy (PDT) is an alternative way to the most common cancer treatment methods. The use of PDT as a cancer therapy is particularly attractive because of its selectivity on cancer cells. Hypericin (HYP) which is derived from Hypericum perforatum, continues to be one of the most promising photosensitizer, as it fascinates with its antitumor, antiviral and antidepressant properties. In this study, HT-29 (grade-1) human colon adenocarcinoma cells treated with 0.04 μM 0.08 μM or 0.15 μM HYP concentrations and after 24 hours cells were irridated with fluorescent lamps. The effects of HYP examined 16 and 24 hours after the activation. The effect of HYP on cell viability analysed with trypan blue staining and MTT tests. Besides, amounts of glucose, lactate and activity of lactate dehydrogenase (LDH) were measured for the metabolic activity. According to the results, in HT-29 cells as HYP concentration increased cytotoxicity increased. While glucose consumption and lactate production decreased, the activity of LDH increased depending on the HYP concentration. In conclusion, this work demonstrates that HYP-mediated PDT have a critical role in leading alterations in metabolic pathways depending on the HYP concentration and incubation time.

* guldeniz@hacettepe.edu.tr