EVALUATION OF THE CELLULAR VIABILITY OF THE H295R CELL LINE EXPOSED TO EXTRACT OF EUPHORBIA TIRUCALLI AND FISH OIL


email: yamaguchi.dri@gmail.com

Paraná displays an incidence 15 times higher than observed globally for adrenocortical carcinoma (ACC) in children. Mitotane is the only drug approved for the treatment but, has low efficacy. This study evaluated the potential antitumor effect of the Euphorbia tirucalli’s extract (ET) and fish oil rich in omega-3 (FO) in ACC cell line in vitro. H295R cells and normal human fibroblast (HF) cells were seeded in DMEM medium supplemented with 10% fetal bovine serum. In order to investigate the antineoplastic effect of ET and FO was used viability assay by MTT. The viability of H295R cells and HF cells were evaluated in 48 hours in different dilutions of ET and FO. The viability of H295R cells exposed to ET was: control group (100±11.71), DMSO (81.16±10.87); 1:50000 (56.06±4.1); 1:20000 (42.08±5.5); 1:10000 (36.17±4.5); 1:5000 (26.21±3.9); 1:2000 (29.55±4.8) and 1:1000 (29.55±4.8). The viability of H295R cells exposed to FO: control group (100±1.3), BSA (107.4±3.2), 1:5 (82.01±3.4), 1:10 (73.8±2.6), 1:20 (72.6±3), 1:50 (70.19±2.9), 1:100 (83.28±3.5) and 1:200 (90.6±3). A value for p<0.05 was taken to indicate statistical significance (Graphpad PRISM). All results were expressed as the mean ± standard error mean. The ET and FO were effective in reducing the proliferation of H295R cell line at the concentrations tested and had no effect on HF cells viability.

Keywords: cancer, adrenal cortex tumor, Euphorbia tirucalli, omega-3.

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