

عنوان مقاله:

Study effect of anti cancer ethanol extract Dunaliella salina by using some metods of Chemofx assay

محل انتشار:

نهمین کنگره بین المللی سرطان پستان (سال: 1392)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:

Introduction: Breast cancer is the main cause of death in middle aged women. Because of the outbreak of this disease it is necessary to try to produce some medicines that have fewer side effects. Donaliella Salina micro alga is of great importance in this respect since it produces some materials with antioxidant quality. The aim of this study is to analyze the anti-cancer effects of extract of Donaliella Salina and to examine its effect on the level of cytotoxicity of the medicine of taxol, [and] on the extracted line cell of 4T1 of breast tumor of the wistar rat (BALB/c). Materials and methods: Donaliella Salina was cultured in Jhonson s medium. After harvesting the algae mass and washing it by PBS, it was dried in extreme cold and used for making etanolic extract. 4T1 cells were cultivated in RPMI medium. With time intervals of 6, 24 and 48 hours, cells were treatmented under the concentrations of 0,6.25, 12.5, 25, 50, 100 µg/ml of the algae extract and the concentrations of 0, 1.25, 2/5, 5, 10, 20 nM/L of taxol and a combination of 1:1of two materials. In order to assess the cytotoxicity of the algae extract and its effect on the level of mortality of taxol , used MTT test. The analysis of algae extract was done by HPLC to determine the level of beta-carotene. Results: HPLC analysis confirmed the existence of beta-carotene in the algae extract. Results showed that the algae extract had mortality effect on the 4T1 cells, and the rate of mortality of taxol in combination with algae extract was increased. LD50 extract and taxol related to the 48-hour medication and 36.43 µg/ml and 6.427 nM/L were computed. In the combination of extract – taxol, LD50 taxol was reduced to 3.482 nM/L in the 24-hour. Conclusion: the etanolic extract of Donaliella Salina has a mortality effect on the 4T1 line cells and the mentioned effect also increased when etanolic extract of Donaliella was combined by taxol. Therefore, Donaliella Salina microalga, can be studied more as an anti-cancer herbal medicine.

کلمات کلیدی:

Donaliella Salina, Beta Carotene, Taxol, Breast Cancer

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