

عنوان مقاله:

Garlic Extract Can Induce Apoptotic Cell Death in The Human Colon Adenocarcinoma HT29 Cell Line

محل انتشار:

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خلاصه مقاله:

Background and Objective: Garlic has been known worldwide as a dietary constituent with many pharmacological effects. The present in vitro study was designed to investigate the putative anticancer effect of garlic extract on cancer cells, and if this effect was through apoptosis induction. **Material and Methods:** Human colon adenocarcinoma cells HT29 were treated with different doses (1, 5 and 10 mg/ml) of fresh garlic extract in cell culture at 24, 48 and 72 h. Cell death was assessed by viability test, and its apoptotic nature was determined by terminal deoxynucleotidyltransferase mediated dUTP nick end labeling (TUNEL) assay. All experiments were statistically analyzed using SPSS 11.5 software. **Results:** Garlic extract induced a dose-dependent cell death with the highest values at 72 hours. The apoptosis analyses by TUNEL assay demonstrated that in each dose/time group the apoptotic values are much less prominent than the related cell death percentage found in viability test. In every dose, the sum of apoptotic cells in all three-time points was nearly equal to the percentage of cell death at 72 hours.

Conclusion: Fresh garlic extract can induce a dose-dependent apoptotic cell death in cultured HT29 cell line

کلمات کلیدی:

Garlic , HT29 cell , Apoptosis , TUNEL

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