

Effects of matrine on the growth inhibition, c-myc and hTERT protein expression in human adenocarcinoma lung cancer cell line A549

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摘要

Background and objective It was reported that telomerase was associated with the oncogenesis and progression of cancer, and to be the common targets of cancer therapy. The mechanism of matrine on lung cancer in vitro is not clear. We studied the effect of matrine on growth of human lung adenocarcinoma A549 cells and the mechanism related with telomerase. **Methods** MTT was used for measuring A549 cells viability, Hoechst 33342-propidium iodide fluorescent staining for observing apoptotic cells, flow cytometry (FCM) for analyzing cell cycle and apoptosis, and immunocytochemistry for measuring the protein expressions of c-myc and hTERT in A549 cells. **Results** Matrine inhibited the proliferation of A549 cells with a time-dose-dependent manner ($P < 0.05$). Hoechst 33342-propidium iodide staining showed apoptotic cells with chromatin condensation and fragmentation of nuclei. FCM analysis indicated elevating rate of cells in G0/G1 phase, lowering rate of that in S phase and the higher apoptotic rate. The levels of c-myc and hTERT protein expression in the matrine group was lower than that in the control group ($P < 0.05$), and AOD of c-myc showed positive correlation with AOD of hTERT ($r = 0.633$, $P < 0.01$). **Conclusion** The inhibitory effect of matrine on A549 cells may be related to the lower expression of c-myc and hTERT.






关键词

Matrine; Telomerase; Lung neoplasms; hTERT

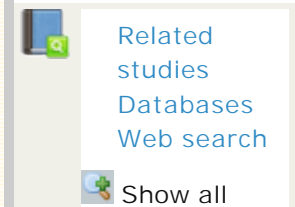
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