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The effect of 900 MHz GSM-like radiofrequency irradiation and nicotine administration on the apoptosis of human fetal cells

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The purpose of this study was to evaluate the effect of RF-EMR and nicotine exposure on cultured human fetal cells. Amniotic fluid samples were collected from 48 pregnant women and were determined by flow cytometric analysis. A significant increase in late apoptotic cells (UR) was observed in the RF-EMR, nicotine and RF-EMR+ nicotine groups ($p<0.01$, 0.001, 0.001, respectively), along with significant changes in viable (LL), early apoptotic (UR) and necrotic (LR) cells ($p>0.001$). The study results indicated that fetus exposure to 900 MHz RF-EMR (i.e., radiation from cell phones) might not be as detrimental as previously assumed. Exposure to nicotine and to 900 MHz RF-EMR+ nicotine resulted in a significant increase in necrotic and apoptotic cells. The results also suggested that combined exposure to tobacco and cell phone radiation might lead to more harmful effects on fetuses.

Biography

Mustafa Emre has completed his Masters at Physiology Department of Cukurova University Faculty of Medicine and PhD in the Biophysics Department at the same University. He has published more than 30 papers in reputed journals.

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