

## عنوان مقاله:

The Effect of Cellphone Radiation on Hematological Blood Cell Factors In BALB/C Mice

## محل انتشار:

مجله فیزیک پزشکی ایران, دوره 13, شماره 1 (سال: 1395)

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## خلاصه مقاله:

**Introduction** The continuous and rapid growth of telecommunication industries, along with the common application of cell phones, has raised debates on the associated risks for human health due to exposure to radiofrequency fields, caused by cell phones or other sources, and industrial and medical applications. Accordingly, in this study, we aimed to investigate the effects of cell phone radiation on BALB/c mice blood factors. **Materials and Methods** In this study, 48 BALB/c mice were divided into six groups, each consisting of eight animals. Four exposure groups were exposed to radiation waves twice a day for 30 min, 1 h, 2 h, and 4 h, respectively over one month. On the other hand, one exposure group was exposed to 900 and 1800 MHz radiations (2 W) for 4 h once a day. Afterwards, the blood samples were taken from the heart, and blood factors including white blood cell count, red blood cell count, platelet count, hemoglobin level, hematocrit level, MCH, MCHC, neutrophil count, and lymphocyte count were measured and analyzed by SPSS version 15. **Results** Based on the findings, MCHC in the exposure group receiving 0.5 h of radiation and MCH in the exposure groups receiving 0.5, 2, and 4 h of radiation were significantly different from the control group ( $P < 0.05$ ). **Conclusion** According to the results of the present study, it can be concluded that microwaves have significant effects on the blood of mice. Therefore, it is suggested that further studies be conducted in this area to confirm the findings.

## کلمات کلیدی:

Electromagnetic Waves, BALB/c mice, Cell phone, Hematological Factors

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