عنوان مقاله:

Evaluation of the Effects of Curcumin and Lycopene Treatment on Human Lymphocytes before ۲ and ۶ Gy of ۶ MV X-Ray Irradiation

محل انتشار:

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نویسندگان:

Reza Fardid - *Department of Radiology, School of Paramedical Sciences, Shiraz University of Medical Sciences, Shiraz, Iran*

Hossein Fazilatpour - *Student Research Committee, School of Paramedical Sciences, Shiraz University of Medical Sciences, Shiraz, Iran*

Narges Ebrahimi - *Student Research Committee, School of Paramedical Sciences, Shiraz University of Medical Sciences, Shiraz, Iran*

Ali Sadeghi - *Student Research Committee, School of Paramedical Sciences, Shiraz University of Medical Sciences, Shiraz, Iran*

Tahereh Zare - *Department of Medical Physics and Biomedical Engineering, School of Medicine, Tehran University of Medical Sciences, Tehran, Iran*

خلاصه مقاله:

Introduction: Today, the use of ionizing radiation in medicine has grown as an important tool for diagnosis and treatment of diseases. However, the harmful effects of radiation should be also considered. Some substances such as lycopene and curcumin can reduce or increase the harmful effects of radiation on humans. So the aim of this study was to evaluate the radioprotective effects of lycopene and curcumin based on the MN assay. Material and Methods: In this study, the effects of lycopene and curcumin on reducing or increasing the harmful effects of radiation were studied using the micronucleus assay. The effects of lycopene (۵ µg/mL) and curcumin (۵ µg/mL) were evaluated at radiation doses of ۲ and ۶ Gy. Results: The results indicated that the simultaneous use of curcumin and lycopene can be radioprotective at low radiation doses (۲ Gy; p <۰.۰۰۱) and radiosensitizing at high doses (۶ Gy; P>۰.۰۵). Conclusion: Based on the present results, further research using other methods may contribute to our understanding of the effect .of simultaneous use of curcumin and lycopene at low and high doses of X-ray radiation

کلمات کلیدی:

Lycopene, Curcumin, Radiation, Micronucleus Assay