Abstract

The aim of this study is testing black grape juice as a radiomodifier against whole body X-irradiation using an animal model. Sixteen male Wistar rats were divided into four groups where two were irradiated by X-rays from a 200 kV machine specially designed to biological samples. Animals were fed ad libitum and drank voluntarily 2-10 ml a day of grape juice or placebo (isocaloric glucose and fructose solution) for one week before and two weeks after 6 Gy X-irradiation when they were sacrificed.

Results have shown a significant liver weight loss in irradiated placebo group only while grape juice one has presented no losses. Hematological analysis showed typical abnormalities for ionizing radiation exposure, including early leucopenia and anemia. The intake of grape juice induced an increase in granulocyte percent count.

Keywords

X-rays, Black grape juice, Radiomodifier, Rats.