

ABSTRACT

The aim of this study was to evaluate about the effect of single dose of ionized radiation on lipid peroxidation and sperm quality of male rabbits (*Lepus negricollis*). The experimental study was used 60 cobalt gamma rays as radiation source with single dose 50 rad, 100 rad and 150 rad. The controlling dose was 0 rad.

Twenty eight male rabbits (*Lepus negricollis*), eight month-old, healthy, three kilograms weight were selected. These samples were divided into four groups and each groups were examined on the first day, the 15th, the 45th after irradiation which was according to spermatogenesis periode of rabbit (*Lepus negricollis*).

The results of this study suggested that the single dose of ionized radiation increased significantly a level of MDA as an indicator of lipid peroxidation break down product and decreased of sperm count and sperm motility as parameters of sperm quality. The negative corelations was demonstrated between a level of MDA and sperm count and sperm motility.

Key words : ionized radiation, lipid peroxidatin, MDA, sperm count, motility.