

RADIOPROTECTIVE ROLE OF ANTIOXIDANT VITAMINS IN IRRADIATED ALBINO-MICE

By

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**B.Sc. Veterinary Medicine Sciences
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A thesis submitted in partial fulfilment

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The requirements for the Master Degree

in

**Environmental Science
Department of Medical Sciences**



**Institute of Environmental Studies and Research
Ain Shams University**

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For

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Department of Medical Sciences**

By

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**Department of Medical Sciences
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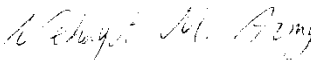
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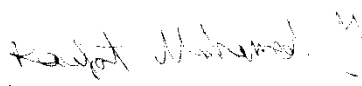
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**Thesis Submitted For M.Sc. Degree in Environmental
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Abstract

Sameh Soliman Mohamed Tawfik

RADIOPROTECTIVE ROLE OF ANTIOXIDANTS VITAMINS IN IRRADIATED ALBINO-MICE

M.Sc. Thesis, Ain Shams University (1998).
The Institute of Environmental Studies and Research.
Medical sciences department.

The protective effects of vitamin C and/or E on male mice exposed to acute sublethal dose of (3 Gy) whole body gamma irradiation were studied. These vitamins were administrated intra-peritoneally as acute doses 2 hours before irradiation.

Both vitamins significantly reduced the deleterious effects of radiation exposure on some blood components (haemoglobin, red blood cell count, total white blood cell count and neutrophil & lymphocyte counts), serum level of thiobarbituric reactive substances, relative testicular weight, sperm head abnormalities and chromosomal aberrations frequencies at different time of sacrificing (15, 24 & 36 days).

Radioprotection by vitamin C and vitamin E in combination was greater than that offered by each vitamin alone. The probable mechanisms of radioprotection were discussed.

Key words :Gamma radiation, Vit. C, Vit. E, Mice, Blood, lipid peroxidation, testicular weight, sperm head abnormalities, chromosomal aberration.

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