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# **Comparative study between oxygen therapy and rutin as an antioxidant in hyperlipidemic rats**

***A thesis***

***Submitted for fulfillment of the degree of Doctor Philosophy  
in Zoology***

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**2015**



## Acknowledgement

*First and foremost, I feel always indebted to **ALLAH**, the most kind and most merciful.*

*No, words can be sufficient to express my deepest gratitude to **Prof. Dr. Sanaa M. Rifaat Wahba**, Professor of Histology and Histochemistry, Department of Zoology, Women's College, Ain Shams University, for her close supervision and continuous assistance during the investigation. To her I owe a great deal for her sincere guidance. I will never forget her unlimited help.*

*I am greatly obliged to **Dr. Walaa Ahmed Moustafa**, Assistant Professor of Physiology, Department of Zoology, Women's College, Ain Shams University. To her I am greatly indebted for suggesting and planning the subject, valuable advice, immeasurable time given and for reading and criticizing the manuscript.*

*Finally, I would like to offer a word of thanks to all my colleagues and the members of Zoology Department for their cooperations.*

*I am extremely sincere to my **family** who stood beside me throughout this work giving me their support.*

*Words fail to express my love, respect and appreciation to **my husband** for his unlimited help and support.*



*Hanaa Khairy Mohamed*

# *Dedication*

*TO my Husband,*

*TO my Father,*

*TO my Mother,*

*TO my brothers,*

*And*

*TO my sister,*

*Wishing them all the best.*

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**2015**

## Abstract

The present study is an attempt to investigate the complications of hyperlipidemia on some physiological parameters and histological profiles on the liver tissue of male albino rats.

The work also evaluates the therapeutic role of oxygen therapy or rutin on hyperlipidemic rats to minimize hazardous effects of hyperlipidemia.

Results were obtained from the treated experimental animal groups and compared with the corresponding normal control rat group.

The present findings were further discussed in view of relevant available literature in similar fields of studies.

The following parameters were estimated: -  
Hormonal assays, lipid profile, free fatty acids, phospholipids, total antioxidant capacity and lipid peroxidation.

Liver of albino rats was chosen for the histological and histochemical studies to elucidate the impact of hyperlipidemia on liver tissue and the ameliorating effects of oxygen therapy and rutin.

In the light of the obtained results, conclusions were deducted and suggestions for further studies were introduced.

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