

# بسم الله الرحمن الرحيم





# شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم





# جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

## قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



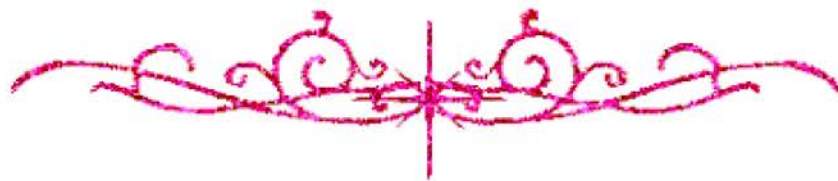
## يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار





بالرسالة صفحات  
لم ترد بالأصل







# بعض الوثائق الأصلية تالفة



مع التوفيق يا رب اعل كنهة حكو بلمين بكم  
المدونة في دأناست كنهة (المصنوع) المرزا  
البصيرة دلا كاديسية  
The Effect Of Nicotine Toxicity On The Heart Of Adult

**Male Albino Rat With Special Reference to The protective**

**Role Of Vitamins A, C and E:**

**Histological and Histochemical Study.**

مقاله

- Thesis -

Submitted for partial fulfillment of M. Sc. Degree of histology.

Presented by

**Hany Kamal Kamel Mostafa**

68642

M. B. Bch.

Under surevision of

**Prof. Dr. /Hoda Fouad Nada**

Professor of histology

Faculty of medicine, Ain Shams University.

**Prof. Dr./Mamdouh A. El-Azhary**

Professor of histology

Faculty of medicine, Ain Shams University

**Dr. / Suzi H. Ibrahim**

Lecturer of histology.

Faculty of medicine, Ain Shams University

**Ain Shams university**

**Faculty of medicine**

2002



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### **Abstract**

Nicotine is a highly toxic alkaloid that is linked to a variety of serious diseases. The aim of this study is to investigate the effect of nicotine on the heart of adult male albino rats, with special references to the protective roles of vitamins A, E and C. This study was conducted on thirty adult male albino rats they were divided into 5 groups, 6 animals each.

A part from the control group, group II received nicotine orally at a dose of 20mg / kg /day, group III received nicotine plus vitamin A at a dose 5000 I.u. /kg /day, group IV received nicotine plus vitamin E at a dose 600 mg /kg / day, group V received nicotine plus vitamin C at a dose 2gm /kg /day. The duration of the experiment was 4 weeks equal for all groups.

Evaluation of this work was performed using different histological and histochemical techniques including, routine haematoxylin and eosin, iron haematoxylin, Masson's trichrome stain, PAS stain, Nachla's technique and semithin sections for group I, II and IV.

Affection of the cardiac muscle fibres and coronary blood vessels was observed in group II.

Mild improvement was observed in group III, while marked improvement was observed in both group IV and V. Vitamin E showed better protection than vitamin C.

Finally we concluded that, normal levels of vitamins C and E are not enough for protection of smokers from hazards of nicotine on the wall of the heart and so smokers must receive supplementary doses of these vitamins.

### **Key words:**

Nicotine, cardiac muscle, vitamin A, C and E.  
Coronary blood vessels.

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*Introduction  
and  
Aim of the work*



