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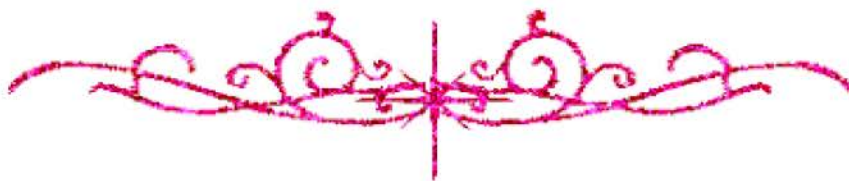
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شبكة المعلومات الجامعية



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

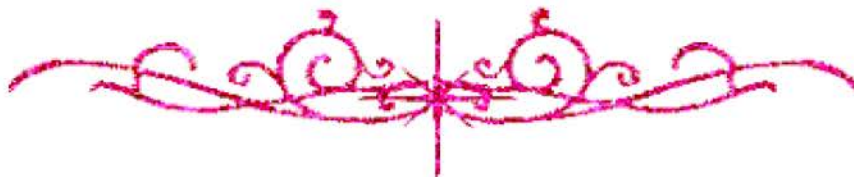
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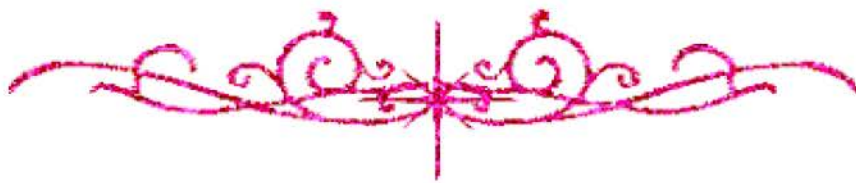
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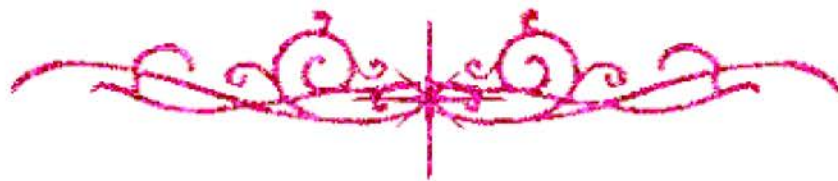
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بالرسالة صفحات لم ترد بالأصل



**ASSESSMENT OF SOME BIOCHEMICAL
PARAMETERS IN CHICKENS SUFFERING
FROM HEPATIC AND RENAL DISORDERS
FOLLOWING MYCOTOXICOSIS**

B1914.

Thesis Presented

By

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Dedicated To
My Family

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ARABIC SUMMARY

LIST OF ABBREVIATIONS

AST:	Aspartate aminotransferase
ALT:	Alanine aminotransferase
CPK:	Creatine phosphokinase
HDLc:	High density lipoprotein cholesterol
LDLc:	Low density lipoprotein cholesterol
LDH:	Lactate dehydrogenase
NADH:	Nicotinamide adenine dinucleotide hydrogen
OD:	Optical density
SGOT:	Serum glutamic oxalacetic transaminase
SGPT:	Serum glutamic pyruvic transaminase

Introduction

1.0 INTRODUCTION

The annual increase of human population is associated with a shortage of available animal proteins. This problem is evident in many countries especially the developing ones. Therefore, attention is directed towards poultry breeding. It is well known that poultry breeding is the promising and rapid way to solve the shortage of animal proteins by avian meat and/or egg production.

Successful poultry breeding requires good quality rations. Improper storage of poultry rations results in propagation of many microbial pathogens especially fungi. The propagation of fungi is associated with production of many metabolites. Such metabolites are known as mycotoxins.

Aflatoxins are a group of mycotoxins isolated from *Aspergillus flavus*. The major members of aflatoxins are designated aflatoxin B₁, B₂ and G₃. There are other four aflatoxins, M₁, M₂, B₂A and G₂A which may be produced in minor amounts in cultures of *Aspergillus flavus* and *Aspergillus parasiticus* (Du'Lock, 1965).

Ochratoxins are a group of mycotoxins isolated from *Aspergillus ochraceus*. The main member of ochratoxins are A, B and C (Choudhury et al., 1971).

It is well known that aflatoxins are hepatotoxic substances. Aflatoxicosis at a low dose (100 ppb) results in an increase in relative weight of liver and an increase in SGPT, SGGT and LDH activities in

Baladi rabbits (*Abd El-Hamid et al., 1990*), in chickens (*Beers et al., 1992; Fernandez et al., 1994*), and in quails (*Gawai et al., 1992*). Moreover, aflatoxins inhibit synthesis of albumin and globulin and consequently decrease serum total proteins (*Dafalla et al., 1987; Huff et al., 1988a; Beers et al., 1992; Smith et al., 1992; Shukla et al., 1995* and *Quezadat et al., 2000*). Aflatoxins decrease serum total lipids and increase cholesterol (*Wyatt et al., 1973; Abd El-Hamid et al., 1990* and *Smith et al., 1992*). They also affect kidneys since. Aflatoxins reduce glomerular filtration (*Glahn et al., 1991*), increase relative weight of kidneys (*Abd El-Hamid et al., 1994*) and increase serum uric acid (*Abo-Norag et al., 2000*).

Ochratoxin was proved to be nephrotoxic metabolites of *Aspergillus ochraceus* and *Penicillium viridicatum* (*Choudhury et al., 1971*). Ochratoxin A produces enlargement and pathological changes in kidneys (*Huff et al., 1975*), atrophy and degeneration of proximal and distal renal tubules (*Elling et al., 1975*). Ochratoxin A also decreases clearance of para amino hippuric acid and phenol red, and increases serum uric acid and creatinine (*Huff et al., 1988* and *Raymand et al., 1988*).

The objective of the study was to throw light on the effect of hepatic and renal disorders in chickens caused by diets containing mycotoxins (aflatoxins and ochratoxins) on liver and kidney functions as well as serum lipid profile.