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شبكة المعلومات الجامعية



شبكة المعلومات الجامعية

التوثيق الالكتروني والميكرو فيلم

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
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بعض الوثائق الأصلية تالفة



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بالرسالة صفحات
لم ترد بالأصل

**HISTOLOGICAL AND IMMUNOLOGICAL STUDIES ON
THE BROILER'S IMMUNE ORGANS FOLLOWING
DIFFERENT ROUTES OF NEWCASTLE DISEASE
VACCINATION**

Thesis presented

By

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(M. V. Sc.)

For the Degree of Ph. D.

(Animal Histology)

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**Thesis
Submitted to Suez Canal University,
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Dept. of cytology and Histology**

2001

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ΛΛΨΞ

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

" رَبَّنَا اغْفِرْ لِي وَلِوَالِدَي
وَلِلْمُؤْمِنِينَ يَوْمَ يَقُومُ
الْحِسَابُ "

صدق الله العظيم

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Dept. of Cytology and Histology.

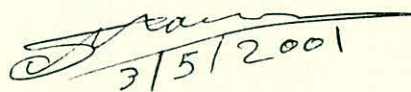
Approval Sheet

This is to approve that the dissertation by *Ibrahim Fikry Elwan* to Suez Canal University Entitled (Histological and immunological studies on the broiler's immune organs following different routes of vaccination), has been approved by the examining committee on 3/5/2001.

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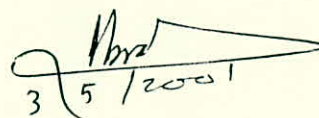
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Dedication

To the Chaste Spirit of my Mother.

To my Wife, Daughters and Sons

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ABBREVIATION

ATP-ase	: Adenosine triphosphatase.
C.T	: Connective tissue.
FAE	: Follicle associated epithelium.
HB ₁	: Hitchiner B ₁ .
HG	: Harderian gland.
HI	: Haemagglutination inhibition.
IB	: Infectious bronchitis.
IBD	: Infectious bursal disease.
IFE	: Interfollicular epithelium.
ILT	: Infectious laryngotracheitis.
NAE	:Non-associated epithelium.
ND	: Newcastle disease.
SDH	: Succinic dehydrogenase.

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INTRODUCTION

Introduction

The chicken industry in Egypt is economically valuable; no doubt that the chickens are one of animal protein source (meat and egg) for inhabitants.

Vaccination of chicken is the principle method used for control most of chicken viral diseases such as Newcastle disease, which is an acute and highly contagious viral disease of the chickens.

Certain strains of ND virus have been successfully used as living vaccines to immunize chickens against Newcastle disease, as Hitchinar B1 and Lasota strain. The ND vaccines have been administered by a variety of techniques that include, the addition of the vaccine to drinking water, instillation into conjunctival sac or dissemination of the virus into the air either as dust or spray and by intramuscular or subcutaneous injection (**Beard and Easterday, 1967**).

The first three methods of vaccination are mostly the common field vaccination methods used for broilers in Egypt.

The avian immune system as in mammals responsible for immunity in birds. Functionally, it includes bursa-dependent and thymus-dependent component, The bursa-dependent component is based upon the bursa with secondary germinal centers and plasma cells spread through out the body, while the thymus-dependent component is based upon the thymus with scattered collections of lymphocytes through out the body. The bursal component is responsible for humeral immunity and thymic-component for cellular immunity.

Anatomically, the bursa of Fabricius and thymus comprise the central component of the lymphatic system. The peripheral component includes all areas of normal lymphocytic aggregation or proliferation out



sides the central component as spleen, caecal tonsils, mural lymphatic nodules and paraocular and paranasal organs (Firth, 1977).

The aim of this study is to clarify:

- 1- The histological structure and histochemical reactions of the avian immune organs.
- 2- The histological structure and histochemical changes of the broiler's immune organs after vaccination with ND via different routes.
- 3- The immunological response of the broilers after ND vaccination via the common field methods.