



Cairo University
Faculty of Veterinary Medicine
Department of Medicine
and Infectious Diseases



Cairo University

Some studies on immune response to foot and mouth disease vaccine in Egypt

Thesis
Presented by

Amir Ahmed Mahmoud Yousef
B.V.Sc. (2011), Faculty of Veterinary Medicine, Cairo University

For the Degree of M.V.Sc.
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Under the supervision of

Prof. Dr. Adel Abdelazim Fayed

Professor of Infectious Disease,
Faculty of Veterinary Medicine
Cairo University

Prof. Dr. Magdy Mahmoud Elsayed

Professor of Infectious Diseases,
Faculty of Veterinary Medicine
Cairo University

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APPROVAL SHEET

The examining committee approved MR.Vet. Amir Ahmed Mahmoud
For Master Degree in Veterinary Medical Science, (Infectious Diseases)

Title: "Some studies on immune response to foot and mouth disease
vaccine in Egypt"

Examining and judgement committee:

Signature

Prof.Dr. Magdy Hassanin El-Gaabary

Professor of Infectious Diseases
Faculty of Veterinary Medicine
Kafr El-Sheikh University

Prof. Dr. Samia Abd El-Hamid Ahmed

Professor of Infectious Diseases
Faculty of Veterinary Medicine
Cairo University

Prof.Dr. Adel Abdelazim Fayed

Professor of Infectious Diseases
Faculty of Veterinary Medicine
Cairo University

Prof.Dr. Magdy Mahmoud Elsayed

Professor of Infectious Diseases
Faculty of Veterinary Medicine
Cairo University



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Faculty of Veterinary Medicine
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and Infectious Diseases



Cairo University

SUPERVISION SHEET

Prof. Dr. Adel Abdelazim Fayed

Professor of Infectious Diseases
Faculty of Veterinary Medicine
Cairo University

Prof. Dr. Magdy Mahmoud Elsayed

Professor of Infectious Diseases
Faculty of Veterinary Medicine
Cairo University

(2018)



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Name: Amir Ahmed Mahmoud Yousef

Date and place of Birth: 1/8/1989, El-Gharbia.

Nationality: Egyptian

Degree: Master of veterinary Medical Sciences.

Specialization: Infectious Diseases.

Title of Thesis: Some studies on immune response to foot and mouth disease vaccine in Egypt

Supervision:

Prof.Dr.AdelAbdelazimFayed Professor of Infectious Diseases

Faculty of Veterinary Medicine, Cairo University

Prof.Dr.MagdyElsayed Professor of Infectious Diseases

Faculty of Veterinary Medicine, Cairo University.

Abstract

Foot-and-mouth disease(FMD) is a highly contagious viral disease that affects both domesticated and wild cloven-hoofed animals. FMD has taken an enzootic form in Egypt. So it was necessary to make many studies about how to control this dangerous disease by vaccination using imported or locally produced vaccine. Despite years of biannual vaccination of cattle against foot-and-mouth disease (FMD) using trivalent locally prepared and imported vaccine, the disease still uncontrolled in Egypt. There is no strategic plan for immunization against the disease using local or imported FMD vaccines. At how old are the newborn calves vaccinated and after how many weeks are they revaccinated? Is vaccination every four months or six months in both dairy cows or herds of fattening calves recommended?

In order to answer these questions, the experiments of this thesis were designed to evaluate the immune response of the imported vaccine in a farm in Suez governorate and comparing with Giza governorate farm in which the locally produced vaccine is used to test the serological equivalence of viruses used in the vaccine. And to evaluate the immune response of the imported vaccine in a farm in Gharbia governorate. The Gold standard serum

neutralization test was used to evaluate the immune response of each serum samples collected from each farm.

Ten percent of serum samples of animals in each farm were collected pre and post vaccination at different periods except Garbia farm which serum samples collected once.

Results obtained indicates that local produced vaccine showed better immune response against serotypes A,O,and SAT2 than the imported vaccine. However, other immune response tests should be carried out on farms representing East Delta, Central Delta, West Delta, North and South Upper Egypt, to exclude the results of cattle that may have been infected with a field infection and have no satisfactory symptoms.

Dedication

I dedicate this work to my father , my mother , my wife , My daughter Noreen and my son Yousef for all the support they lovely offered during my post graduate studies.

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