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Some studies on toxoplasmosis in poultry transmissible to man

Thesis Submitted for partial fulfillment of
The master degree in Parasitology

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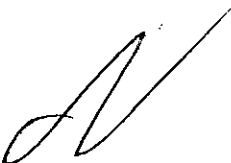
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بسم الله الرحمن الرحيم

” قَالُوا سُبْحَانَكَ لَا عِلْمَ

لَنَا إِلَّا بِمَا عَلَّمْتَنَا إِنَّكَ

أَنْتَ الْعَلِيمُ الْحَكِيمُ ”

الآية (٢٢) سورة البقرة

To,

The Souls of My Parents

My Family

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INTRODUCTION

Introduction

In spite of a wide host range and a world wide distribution, *Toxoplasma gondii* has a low genetic diversity. Most isolates of *T.gondii* can be grouped in two to three lineages. Type I strains are considered highly virulent in outbred laboratory mice, and have been isolated predominantly from clinical cases of human toxoplasmosis whereas types II and III strains are considered avirulent for mice (Dubey et al., 2002).

In the course of evolution, *T. gondii* has developed a broad range of potential routes of transmission. However, the elucidation of these routes during the past 3 decades has not elucidated which of these routes is more important epidemiologically. For example, many studies have focused on congenital toxoplasmosis in humans which is a result of vertical transmission of the parasite during pregnancy. By contrast, we know little about the relative importance of horizontal transmission of *T. gondii* between different host species, of the major reservoirs of the parasite in nature, or of the epidemiological impact of the different sources causing infection or disease in humans. Likewise, many studies have been carried out on the asexual stages of *T. gondii*, in particular on the tachyzoite, while much fewer studies have considered the sexual stages or their infectious product, i.e. the sporozoites within the oocyst. Moreover, only few studies have been aimed at identifying risk factors that may be associated with acquiring an infection with *T. gondii* postnatally (Tenter et al., 2000).

Birds are important prey host of *T.gondii* because they serve as a source of infection for cat and man (Dubey and Beattie,1988).The prevalence of *T.gondii* in chickens , turkeys , and ducks is a good indicator of the contamination of the soil with *T.gondii* oocyst (El-Massry et al., 2000).

Isolation of predominantly type I strains from chickens has been reported for the first time in Brazil (Dubey et al., 2002).

AIM OF THE WORK