

# **Dedication**

**To our wonderful teachers and parents**

## **Preface**

The work in this thesis was carried out in Labchek, a private veterinary laboratory, Khartoum Sudan and is designed to be a preliminary screening for *Brucella* antibodies in dogs reflecting the magnitude of public health hazard. The material presented is written according to the thesis writing instructions of Department of Medicine and Surgery, Faculty of Veterinary Medicine and Surgery, Sudan University of Science and Technology.

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## Abstract

Dogs can be affected by *Brucella canis*, *Brucella abortus*, *Brucella melitensis* and *Brucella suis*. The main objective of the present study was to detect the presence of *brucella* antibodies (Abs). Forty five police caged dogs (PCD) and thirty two dogs owned by citizens (DOC) were examined for presence of antibodies of *Brucella* antibodies (Abs) using Rose Bengal test (RBT). Our results show that almost all police caged dogs (PCD) were positively reacting for *Brucella* Abs. Dogs owned by citizens (DOC) showed less positively reacting cases than the PCD. The positively reacting dogs in this group were 56% while the rest 44% were negative for *Brucella* Abs. The detected Abs may be other than *brucella canis* as the dogs did not show any signs or lesion of brucellosis and there was no history of abortion except in one female of the surveyed bitches.

## المستخلص

تصاب الكلاب *Brucella canis*, *Brucella melitensis*, *Brucella suis* and *Brucella abortus*

الهدف الأساسي للدراسة هو الكشف عن أضداد البروسيلا. تم اختبار خمسة وأربعين كلبا من الكلاب البوليسية واثنين وثلاثين كلبا من الكلاب المملوكة للمواطنين باستخدام اختبار وردية البنغال. وجدنا في النتائج أن كل الكلاب البوليسية تفاعلت ايجابيا مع أضداد البروسيلا. وكانت الكلاب المملوكة للمواطنين اقل ايجابيا من الكلاب البوليسية, وكانت نسبة النتائج الموجبة 56% بينما البقية 44% كانت سالبة. الأضداد المختبرة يمكن أن لا تكون *Brucella canis*, كما أن في الكلاب البوليسية لم تلاحظ أي أعراض لمرض الإجهاض المعدي وليس هنالك تاريخ لحالات إجهاض ماعدا حالة واحدة سجلت.