

بسم الله الرحمن الرحيم

Sudan University of Science and Technology
College of Graduate Studies

Prevalence of Human Brucellosis among Abattoir's
Workers and Brucella Laboratories Workers in
Khartoum State

**مدى إنتشار الحمى المالطية وسط العاملين
بالمسالخ ومعامل الحمى المالطية بولاية
الخرطوم**

Dissertation submitted in partial fulfillment for the requirements of MSc
Degree In Medical Laboratory Science (Microbiology)

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February 2011



قال تعالى:

يَا أَيُّهَا النَّاسُ إِن كُنْتُمْ فِي رَيْبٍ مِّنَ الْبَعْثِ فَإِنَّا
خَلَقْنَاكُمْ مِّن ثَرَابٍ ثُمَّ مِّن نُّطْفَةٍ ثُمَّ مِّن عِلْقَةٍ ثُمَّ مِّن
مُّضْغَةٍ مُّخَلَّقَةٍ وَغَيْرِ مُخَلَّقَةٍ لِّنُبَيِّنَ لَكُمْ وَنُقَرُّ فِي
الْأَرْحَامِ مَا نَشَاءُ إِلَىٰ أَجَلٍ مُّسَمًّى ثُمَّ نُخْرِجُكُمْ طِفْلًا
ثُمَّ لِنَبْلُغُوا أَشُدَّكُمْ وَمِنْكُمْ مَّن يُّتَوَفَّىٰ وَمِنْكُمْ مَّن يُرَدُّ
إِلَىٰ أَرْذَلِ الْعُمُرِ لِكَيْلَا يَعْلَمَ مِن بَعْدِ عِلْمٍ شَيْئًا وَتَرَى
الْأَرْضَ هَامِدَةً فَإِذَا أَنزَلْنَا عَلَيْهَا الْمَاءَ اهْتَزَّتْ وَرَبَتْ
وَأُنْبَتَتْ مِن كُلِّ زَوْجٍ بَهِيجٍ

صدق الله العظيم
سورة الحج
الآية (5)

Dedication

- *To the soul of my mother and father*
 - *To my brothers and sisters*
- *To my small family (Amna , Faried)*

They always provide me a rich source of moral support.

Acknowledgements

All the praises and thanks are due to Almighty Allah, the Cherisher and Sustainer of the worlds, at the beginning and the last.

My especial and deepest thanks are extended to my supervisor
Dr. Abdul Bagi El Nagi, Sudan University of Science and Technology, *for his valuable advices, and guidance.*

My warmest heart thanks to my colleagues and friends *Dr. Mohamed Rajab, Abdel Rahman Adam, Osman Hassan Elshiekh, for their close contact, help and support in performing this study.*

I wish to express my indebtedness and everlasting appreciations to my husband who was in close contact to this study since it was a proposal with advices and close kind help.

My especial thanks are also offered to my colleagues in the Brucella Department at the Central Veterinary Research Lab, for their kind help and encouragement to complete this work.

Everlasting thanks and appreciations are to my daughter, brothers, and sisters who always support and encourage me hoping to see this work completed and see me in better situations.

ABSTRACT

The main aim of this study was to investigate the prevalence of human brucellosis among abattoir's and brucella-laboratory workers, Khartoum State, Sudan. The study provided information about the epidemiology of the disease among human subjects in the study area. A serological survey of human brucellosis was carried out from July to August 2007. Ninety two volunteer participants (n= 92) were enrolled in the study. The diagnosis of human brucellosis was based on Rose Bengal Plate Test (RBPT) to screen the prevalence of anti-brucella antibodies. The Standard Agglutination Tests (SAT) was used to confirm some negative samples obtained by the screening test. The overall prevalence rate was found to be 10.9% in human. Seventy subjects in this study were males (76.1%) and 22 subjects (23.9%) were females. Among male participants 7 subjects (10%) were positive, while among females 3 subjects (13.6%) were positive.

The highest prevalence rate was observed among those who were 56 - 65 years including two infected subjects (40.0%).

ملخص الأطروحة

اجريت هذه الدراسة بغرض معرفة مدى انتشار مرض البروسيلا وسط العاملين في المسالخ ومعمل البروسيلا في ولاية الخرطوم. وقد وفرت هذه الدراسة معلومات عن وبائية هذا المرض وسط المجموعات البشرية في هذه المنطقة. أجرى المسح المصلي للبروسيلا في الفترة من يوليو إلى أغسطس عام 2007م، حيث تم إختيار المتطوعين الذين شاركوا في الدراسة بناءً على رغبتهم في المشاركة وعددهم 92 متطوع. وقد تم التشخيص المصلي بإستخدام إختبار الـ روز بنقال و إختبار التراص المصلي لتأكيد نتيجة بعض العينات السالبة. وجد أن معدل الإصابة بمرض البروسيلا في الإنسان 10.9%. أخذت العينات من 70 رجل (76.1%) و 22 امرأة (23.9%)، وكانت النتائج الإيجابية في 7 من الرجال (10%) و 3 من النساء (13.6%). أظهرت الدراسة أن الفئة العمرية الأكثر تأثر بالإصابة 56-65 سنة متضمنة 2 مصابين (40.0%).

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