Current Status of Brucella Infections In A Major Referral Fever Hospital In Egypt

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By
Mahmoud Ashour Mahmoud Abd Elall
M.B.,B.Ch-D.T.M-D.P-Ms.T.M.

Supervisors

Prof. Dr. Mohamed Azab

Prof. of Tropical Medicine, Chairman
Department of Tropical Medicine
Faculty of Medicine
Al-Azhar University

Prof. Dr. Raied Hamed Mansour

Prof. of Tropical Medicine
Faculty of Medicine
Al-Azhar University

Prof. Dr. Essam Abdel-Moneaem El-Moslhy

Department of Community Medicine
Faculty of Medicine
Al-Azhar University

Prof. Dr. Samy Zaky El-Sayed

Prof. of Tropical Medicine
Faculty of Medicine
Damietta Al-Azhar University

Prof. Dr. Aly Mahmoud Bersy

Prof. of Clinical Pathology Department
Faculty of Medicine
Damietta Al-Azhar University

Faculty of Medicine
Al-Azhar University
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بسم الله الرحمن الرحيم

وقُلِ اعْمَلُوا فَسَيَرَى اللَّهُ عَمَلَكُمْ وَرَسُولُهُ وَالْمُؤْمِنُونَ

صدق الله العظيم

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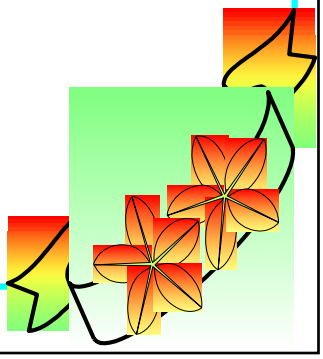
Dr. Mahmoud Ashour

To My Parents



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LIST OF ABBREVIATIONS

1st H	First hour
2nd H	Second hour
ACU	Area under the ROC curve
ALP	Alkaline phosphatase
ALT	Alamine aminotransferase
AST	Aspartate aminotransferase.
Br +ve	Brudzinski's sign.
CBC	Complot blood count.
CDC	centre for disease control and prevention.
CI	Confidence interval
CNS	Central nervous system
ELISA	Enzyme linked immunized assay.
ESR	Erysosedmendion rate
gm	Gram.
Hb	Hemoglobin
IFH	Imbaba fever hospital.
IM	Intra muscular.
IV	Intravenous.
Kr +ve	Kerning's sign.
L.N.	Lymph nod
NAD	non abnormality detected
NS	P value > 0.05 Non-Significant.
OD	Optical density
PO	Orally.
RBC	Red blood cell
S*	P value < 0.05 significant
S**	P value < 0.001 high significant
SAT	Standard agglutation test

LIST OF ABBREVIATIONS (Cont.)

S.bil	Serum billubin
SD	Serum dextrues
±SD	Standard division.
S.L.E.	Systemic lupus erythematosis.
TMP-SMX	Trimethoprim –sulfamethoxazole.
WBCs	White blood cells
WHO	World health organization.

(Ellen, 2010)

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INTRODUCTION

Human brucellosis disease remans the world's most bacterial zoonosis, with over half a million new cases annually and prevalence rates in some countries exceeding ten cases per 100 000 population; Despite being endemic in many developing countries, brucellosis remains underdiagnosed and under-reported.**(Franco et al., 2007).**

Wassif et al. (1992) from Egypt, reported that thought brucellosis is wide spread through the world, yes its prevalence is difficult to assess. The reported cases may grossly underestimate the real prevalence of infection. It has been stated that for each reported case, 26 other cases are either unrecognized or unreported. Two peaks were reported during the period from 1982 to 1991, one to 1986-1987 (51 cases reported for each year) and another higher peak at 1990-1991 (91 and 233 cases reported respectively).

Brucellosis is a contagious disease of animals (Zoonosis) that is transmitted from animal to man, the genus Brucella consisted of six named species **(Young, 2008).** Brucella is a systemic infection caused by intracellular bacteria of the genus Brucella which is transmitted from animal to man (zoonosis). Brucella species are traditionally classified according to their preferred animal host, and four species, each comprising several biovars ,are recognized in humans: B. Melitensis (goats, sheep, and camel), B.abortus (cattel), B. Suis (Pigs) and B. Canis (dogs). The organisms may survive in unpasteurized white soft goat cheese for up to 8 weeks and die within 60-90 days in cheese that has undergone lactic acid fermentation. Freezing dairy products or meat dose not destroy the organisms but they are killed by pasteurization and boiling. The organisms are shed in animal urine, stool and products of conception, and remain viable in soil for 40 days or more **(Madkour, 2009).**

This febrile illness is often difficult to diagnose, but seldom fatal. The disease is found worldwide, being most common in the Mediterranean region, Arab Gulf basin, Indian subcontinent, Mexico, and Central and South America. In the United States, brucellosis is most frequently reported in the south and southwest. As a con sequence of a rigorous farm animal screening and vaccination program, and pasteurization of all dairy products, the over all incidence of brucellosis in the United States is low, 0.05 per 100.000 population, with most cases being contracted by travelers who visit endemic areas (**Southwick, 2008).**

The diagnosis of brucellosis should be considered in an individual with otherwise unexplained chronic fever and nonspecific complaints. Such patients should be questioned for possible sources of exposure to brucella including contact with animal tissues or ingestion of unpasteurized milk or cheese; Both cultures and serologic tests are used to establish the diagnosis of brucellosis. Ideally, the diagnosis of brucellosis is made by isolation of the organism from cultures of blood **(Ariza et al., 1995).**

Human brucellosis mainly caused by Br. Melitensis, is prevalent on the southern and eastern edges of the Mediterranean basin, particularly in Tunisia, Libya, Egypt, Israel, Lebanon , Saudi Arabia, Iraq, and Kuwait. It remains a significant health and economic burden in these countries **(Robert, 1996).**

Brucellosis is a febrile illness is often difficult to diagnose, but seldom fatal (**Frederick, 2008**).