

**Prevalence and Clinical Nature of Brucellosis
among Egyptian Patients with Liver Cirrhosis**

Thesis

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by

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Abbreviations

AFP	Alpha FetoProtien.
ALT	Alanine Transaminase.
ALP	Alkaline Phosphotase
AST	Aspartate Transaminase.
CI	Confidence Interval
CAIDS	Cirrhosis Associated Immune Dysfunction Syndrome.
CDC	Centers of Disease Control and Prevention.
CFT	Complement Fixation Test.
CLD	Chronic Liver Disease.
GT	GlutamylTransferase.

HCV	Hepatitis C Virus.
HE	Hepatic Encephalopathy.
HIV	Human Immune deficiency Virus.
HRS	Hepato-Renal Syndrome.
LFT	Liver Function Tests.
MELD	Modified Endstage Liver Disease.
NAFLD	Non Alcoholic Fatty Liver Disease.
NASH	Non Alcoholic SteatoHepatitis.
SIRS	Systemic Inflammatory Response Syndrome.
WHO	World Health Organization.

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Introduction

Liver cirrhosis is a diffuse hepatic process characterised by fibrosis and the conversion of normal liver architecture into abnormal nodules(***Tsochatzi et al 2014***).Around 80-90% of the liver parenchyma needs to be destroyed before there are clinical signs of liver failure(Heidelbauch and Burdely 2006).The main causes of cirrhosis are hepatitis C virus hepatitis B virus,alcohol abuse and non -alcoholic steatohepatites(Tsochatzi et al 2014).The world Health Organization (WHO) has found that Egypt has highest prevalence of HCV in the world on 2015(***WHO report 2015***).

Liver cirrhosis patients is presented with fatigue ,anorexia ,malaise and weight loss while in advanced decompensated patients the presentations may include odema,ascites, spontaneous bacterial peritonites, hepatosplenomegaly (***Schuppan et al 2008***).

The portal hypertension is a major complication which can lead to esophageal varices as well as kidney hypoperfusion and low rate of clotting factors synthesis.

The severity of the disease can be assessed by childpau score and modified end stage liver disease(**Schuppan and Afdhal 2008**).

Cirrhosis -associated immune dysfunction syndrome (CAIDS) leads to many types of infections due to reducing of chemotaxis,bacterial phagocytosis and bacterial killing making the immune system less able to clear cytokines,bacteria and endotoxins from the circulation(Ghassemi et al 2004).Because of cirrhosis associated immune dysfunction syndrome ,brucellosis is one of the infection that may occur in cirrhotic patients(**Turan et al 2007**).

Brucellae are aerobic gram negative coccobacilli with multiple species like B.abortus,B.melitensis,B.suis and B. canis.Brucellae transmitted mainly by ingestion of unpasteurized milk or raw meat with high prevalence in those contact with animals (**Celebi et al 2007**).

Brucellosis presented mainly with fever ,rigor ,hepatosplenomegally and arthralgia mostly with low back pain affecting sacroiliac joint while the most of the patients suffer from anorexia ,malaise, asthenia and weight

loss(***Anderiopoulos et al 2007***).Other manifestations of brucellosis include rare complications like endocardites, pyelonephrites, meningites ,disseminated intravascular coagulation and pneumonia(***Memish et al 2000***).