



شبكة المعلومات الجامعية  
التوثيق الإلكتروني والميكروفيلم

# بسم الله الرحمن الرحيم



**MONA MAGHRABY**



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التوثيق الإلكتروني والميكروفيلم



## شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



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# جامعة عين شمس التوثيق الإلكتروني والميكروفيلم

## قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
علي هذه الأقراص المدمجة قد أعدت دون أية تغييرات



## يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



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**Some bacteriological and immunological investigations on *Coxiella burnetii* (Q fever)**

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## **Abstract**

Background and Aim: Q fever could be a neglected zoonotic disease caused by the bacteria *Coxiella burnetii*. Very little info is available concerning *C. burnetii* in bovine, sheep and goat infection in Egypt, therefore the objective of this study was to analyze the seroprevalence of *C. burnetii* by IFA and to see the presence of *C. burnetii* DNA in seropositive sera that will contribute to be a supply of transmission of the organism.

Material and methods: blood serum samples were collected from apparently healthy 160 farm animals and 120 patients from three hospitals of the Assiut Governorate throughout 2017/2018 and

investigated for immune serum globulin antibodies against *C. burnetii* phase II antigen by indirect immunofluorescent antibody test (IFAT) and ELISA. Seropositive samples were confirmed by RT-q PCR with specific primers that amplify of *C. burnetii*. Result: The results of IFAT showed that antibodies against *C. burnetii* in bovine were (45.3%) ,sheep (56%),goats (45.7%) and (53.3%)in humans sera (52.1% unknown feverish patients, influenza patients 30.4%,kidney dialysis patients 37.5 %, hepatitis C virus patients 74.1%, hepatitis B virus patients 62.5%). The results by ELISA check in bovine were (50.7%), sheep (60%), goats (51.4%) and (55%) in human sera (54.3% unknown feverish patients ,flu patients 30.4%,kidney dialysis patients 37.5%,hepatitis C virus patients 77.8 %, hepatitis B virus patients 62.5%). RT-qPCR targeting the IS1111 factor confirmed the presence of *C. burnetii* DNA. Conclusion: These results proved that the apparently healthy bovine, sheep and goats are a very important reservoir of burnetii infection. To our data Q fever influences, the replication of the hepatitis virus continues to be not

understood. We have a tendency to terminate that the apparently healthy bovine, sheep and goats are a very important reservoir of *C. burnetii* infection. Although hepatitis is one in all the main shows of acute Q fever, the influence of hepatitis in Q fever has never been investigated. Q fever| isn't a reportable disease in Egypt and clinical cases most likely unrecognizable by the health system. There is a necessity for info on the epidemiology of *C.burentii* in Egypt additionally as several alternative problems like distribution, pathologic process and molecular typing.

**Keywords:** Q fever, *Coxiella burnetii*, RT-q PCR, ELISA, IFAT, Hepatitis C and B, apparently healthy farm animals and humans.

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# *Dedication*

To the memory of my dear mother and to my  
loving father

I am indebted for my husband and my brother and for their cordial  
encouragement and support.

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**List of Abbreviations**

- (NASPHV) =National Association of State Public Health Veterinarians
- (NASAHO) =National Assembly of State Animal Health Officials
- (IHCV) =infectious hepatitis C virus
- (IHBV)=infectious hepatitis B virus
- (H1) hospital 1
- (H2)= hospital 2
- (H3)=hospital 3
- (FUO) =fever of unknown origin

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