

Seroprevalence of Crimea-Congo Hemorrhagic Fever in Dromedary Camels and Human Occupational Contacts in the United Arab Emirates

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Background: Crimean–Congo hemorrhagic fever (CCHF) has been reported in the United Arab Emirates (UAE) since 1980 and is considered as a public health threat in the country. This study was conducted to estimate the seroprevalence of CCHF in dromedary camels and abattoir workers in the UAE.

Methods: A cross-sectional study was conducted between March 2022 and June 2023 at the Al Bawadi abattoir in the Al Ain City on 393 camels and 86 abattoir workers. Anti- CCHFV IgG antibody was tested in the sera of camels using a multispecies indirect enzyme linked immunosorbent assay, ELISA. Furthermore, anti-CCHFV IgG antibody was tested in the sera of abattoir workers using the Human CCHFV ELISA Kit. Data were analyzed using SPSS version 28 (IBM Corporation).

Results: The seroprevalence of CCHF in dromedary camels was 65.1% (95% Confidence interval, CI = 0.604-0.699). No significant association was observed between the seroprevalence of CCHF and either sex ($\chi^2 = 1.04$, $p > 0.05$), age ($\chi^2 = 0.92$, $p > 0.05$), or body condition ($\chi^2 = 3.33$, $p > 0.05$) of the study camels. The seroprevalence of CCHF in abattoir workers was 27.9% (95% CI = 0.184-0.374).

Conclusion: The seroprevalence of CCHF was high in both camels and abattoir workers warranting for appropriate control and preventive measures.

Keywords

Abattoir workers, Crimean-Congo hemorrhagic fever, Dromedary camels, Seroprevalence, United Arab Emirates

Registration-ID code

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No, I am not a Junior Scientist.

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