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Knowledge and Perception toward VHF among Sample of Iraqi People in the Al-Ealam Sector /Baghdad, Iraq

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ABSTRACT

Background: *Crimean –congo hemorrhagic fever, also known as congo fever. It is tick- borne infection causes severe hemorrhaging. It has been endemic in Iraq since 1979 and reappeared again last year sparking fear among locals especially in Iraq's southern provinces. The objective of this study to assess the knowledge of sample of Iraqi people regarding viral hemorrhagic fever (VHF) beside to study the relationship among demographic variables, across sectional study was conducted at al-ealam sector /Baghdad, Iraq in august 2022.*

Method: *Manifestation was prepared to evaluate the knowledge of publics in a form of an objective question, as Yes or No type inquiry.*

Results: *the study showed that from a total of 384 respondents; 53.4% of patients knew that the sickness is spread from one person to another while mosquito or tick bites a human as a transmission method were less frequently mentioned. 192 of the respondents knows that the main symptoms of the disease are marked fever, bleeding under the skin, muscle aches. As well the research finding recorded a shortage in knowledge and perception of respondents on (VHF). Then, there was no association between the awareness of people and their demographic variables.*

Conclusion: *Findings of this study showed that Iraqi people in alealm sector lack to the knowledge and awareness to VHF infection. Nevertheless, needs to further studies on wide range of Iraqi populations for estimating their knowledge and awareness to this disease are essential to control the infection in Iraq.*

Introduction

Crimean-Congo hemorrhagic fever is a febrile sickness with moderate to severe hemorrhage, bleeding into the skin and could be developed to liver failure. The causative aget is a single-stranded RNA belonging to orthonairovirus virus; the genus Nairovirus; the family Bunyaviridae. The virus is of animal origin and could be transmitted to humans through slaughter houses or by ticks bite, particularly the ticks of the genus Hyalomma; family Ixodidae [1-2].

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Crimean-Congo Hemorrhagic Fever (CCHF) was previously diagnosed in Eastern Europe; predominantly in the countries of the former Soviet Union, the countries of Mediterranean region, countries of the central Asia, in northwestern China, in the countries of the Middle East, southern Europe, in the countries of African continent and the Indian subcontinent. In the very recent years, cases of CCHF had been reported in Iraq, Spain and Georgia. In Iraq, the first case of CCHF was recorded on 3rd of September, 1979. Thereafter, frequent outbreaks were diagnosed in several patients throughout the following two years. Last years in Iraq, there was a shortage of data related to the epidemiological state of the CCHF infection [3].

Recently CCHF had recorded in 2018, there were ten infected cases registered by the Iraqi Ministry of Health. The infection was confirmed in three patients of them from Diwaniyia governorate via Reverse Transcriptase Polymerase Chain Reaction whereas, death was occurred in eight of them. In 2021, the Iraqi Ministry of Health registered fifteen laboratory diagnosed clinical cases of CCHF infection throughout April to November and 5 deaths was recorded. Latest, on the2022 April 27th, the Iraqi Ministry of Health 17 patients of laboratory confirmed CCHF infection was recorded. Several patients were from ThiQar governorate and five of them were passed away (3). Then after, on August 11th 2022; of 1,085 suspected cases of CCHF had been reported in Iraq according to the World Health Organization (WHO), [4]. Of that number, 287 have been confirmed, and 52 people have died, representing an 18% case fatality rate. The majority of cases in Iraq occurred in individuals who were in close contact with livestock.

This study displays a community-based survey of adult inhabitants to evaluate the knowledge and perception towards VHF amongst sample of Iraqi people in the al ealam sector / Baghdad, Iraq.

Methodology

The study was conducted in the al ealam sector / Baghdad.al- karkh. This area contained eight primary health centers (PHC). This survey was carried out through July- August 2022. In this study, a questionnaire containing ten questions was used. This questionnaire was designed by researchers after they consulted with medical specialists.

Randomly respondents in total 384 were interviewed, comprised; 204(53.1 %) were males. Besides, 180(46.9%) were females and 100 out of them were housewives while, the others were work in different jobs. Health centers were visited more than one time for interviews. The director or acting director gave permission to interview clients within the healthcare facilities.

Statistical analysis

The program of IBM SPSS 25 was applied for data analysis. Descriptive statistics were generated and proportions were compared using Pearson’.

Ethical considerations

The protocol of this study was officially approved thru the committee of the research ethics \ Ibn Sina University of Medical and Pharmaceutical Sciences, ISU.1.123.

Results

Actually, about 450 persons were contacted, only 384 (85%) accepted to be interviewed. They were 204 (53.1%) males and, 180 (46.9%) females. 70% of the 384 respondents were almost 40 years old or younger. Around 140 (36%) of the respondents were housewives while, the others were works in various jobs; butters 25(6.5%) and other works. About 153 of the respondents had primary school grade 6 or less as educational qualification, nearly 172 (45%) had received secondary schooling and 25(6.5) of the remains received higher education, (Table 1).The percentage of respondents who had a knowledge about VHF for example; the transmission of infection, the prevention and control was displayed in (Table2). Beyond the 384 respondents;

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92(24%) were described one or more symptoms or signs of VHF. Rise of temperature was the most common mentioned symptom (80.8%), as well bleeding with rashes was the next most common described signs (70 %). Whereas, 162 (42.2%) had no knowledge of the infection symptoms. Ther were 204 of the respondents (53.4%) knew that VHF is a n infection that transmitted from one person to another, and only 12(3.1) of them could mention mosquito or tick bites as a method of human transmission. One hundred forty one of respondents (36.7%) stated that they can avoid the disease by avoiding contact with infected meat. The study researchers reported that: 162(42.2%) respondents stated that they had never heard of VHF.

Table 1: General Characteristics of Respondents

Parameters	Number	Percentage%
Number of Participants –	384	85%
Median Age	40 years of age or younger	70%
	41-70	30%
Gender		
Female	180	46.9%)
Male	204	53.1%)
Professional Position		
buchture	25	
House wife	140	
others	219	
Educational qualification		
primary school grade 6 or less	153	40
secondary schooling	172	45
higher education	25	15

Table2: Percentage of the 384 respondents replying to selected VHF knowledge.

knowledge	No.	(%)
1- any information about the disease	222	57.8
2-Is it viral	32	8.3
-bacterial	35	9.1
-don’t know	217	88.6
3 -method of transmission		
- one person to another	204	53.4
- rodent reservoirs	-	-
- mosquito or tick bites a human	12	3.1
-Don’t know	168	43.5
4- who are at risk of infection		
-House wives	22	5.7
-buchters	22	5.7
-farmers	-	-
-Don’t know	217	88.6
5-Symptoms of the disease marked fever, bleeding under the skin, muscle aches	92	24
6- does it affect all ages		

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Yes	202	52.6
-No		
7- does it cause death		
Yes	132	34.4
-No		
8- does it have a treatment		
-Yes	108	28.1
-No		
9- does it have any vaccine		
Yes	42	
-No		
10-How can we avoid it		
avoiding close physical contact with infected people	202	52.6
avoiding contact with infected meat	141	36.7
-controlling rodent populations	-	

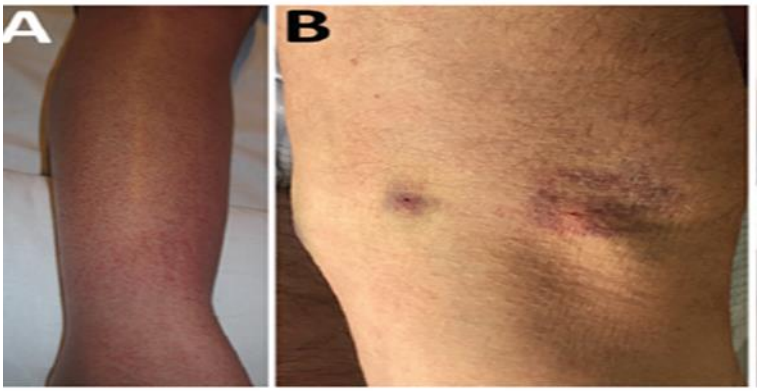


Figure 1: Images of patients in study of Crimean-Congo hemorrhagic fever, Spain, [5].Details of A slightly purpuric rash on the leg of patient, Details of B Ecchymosis on the arm of patient.

Discussion

Crimean-Congo hemorrhagic fever is a recurrent infection in Iraq. The disease was reported throughout January, 2018 to May, 2022. The infection had recorded as endemic in Iraq, and was related to a high mortality rate, when eighteen of the forty-two confirmed cases were died [3,4].

The purpose of education towards health knowledge is to promote the community to be interest with science that keeps their body health away from infection. Subsequently, they will be implemented such acquired scientific knowledge for modifications in favor of healthiness [6,7]. For proceeding the prevention and control of VHF, publics in the community required to increase their education to infection of VHF [8,9]. SO they will be understood the problem and participating in the prevention and the control of the infection. This study discloses that 27 (7.1%) of respondents had knew that the infection is transmitted from one person to another while, 12 (3.1) of them knew that the illness caused by mosquito or tick when bites a human [10].

Ignorance of people within one community to health awareness has to be converted to knowledge through continuous education [11]. Additional efforts have to offer to overcome the misunderstandings of acquired the illness. The present study points out that family visits by health personnel were necessary for distributing facts about VHF sickness besides, how to avoid

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contact the infection to the people in the targeted community [12]. Discussions among health staffs and publics could raise the cooperation in the applying of the programs that designed for prevention [13]. Likewise, the study found that the mass media, social media, and television programs could be effective for education to public health and awareness to VHF. It's one of the priority in the targeted community that to educate and practice the housewives on the measures of health concern in preparing food and dealing with meat and vegetables [14]. Since the housewife usually is likely to be the vital person in management of the house. Therefore, it is suggested that the housewife to be ever more educated and encouraged to run appropriate protective methods of VHF control so as to keep her family from contamination [15]. Furthermore, surveys of knowledge about contact VHF and practices for avoiding the infection midst the housewives have to be carried out over time to assess the efficacy of the VHF infection prevention and control protocols with aid guide for ongoing health education campaigns [16,17]. Thus, education the community by health personnel is of great value in raise their awareness and responsiveness to facts about how to avoid VHF infection and protection procedures.

In conclusion, the re-emergence and spread of Crimean fever infection in Iraq is due to the lack of awareness among people about the infection and the how to avoid and prevent it. Besides, the importance of the media in educating the society about the seriousness of this infection, its causes and the process of controlling it. Thus, regular programs to follow up the disease appearance and raise awareness toward avoidance through governmental efforts adopted by health institutions in cooperation with the public media. This will reduce the number of infected people and limit the recurrence of the disease.

Competing Interest

The authors declared that there is no conflict of interest.

Author Contributions

Ghada alKattan, Raghad abdulkareem, Mithal Abdulkareem Abdoun: propose the study, experiment design, clarifying the findings, article writing and editing.

Hayder majeed,,Faaiz Alhamdani: Funding acquisition, Data curation, Statistical analysis.

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