CODEN [USA]: IAJPBB ISSN: 2349-7750

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES

http://doi.org/10.5281/zenodo.3603602

Available online at: http://www.iajps.com *Research Article*

ASSESSMENT OF KNOWLEDGE AND ATTITUDE TOWARDS CRIMEAN CONGO HEMORRHAGIC FEVER AMONG STUDENTS AND JUNIOR DOCTORS IN D. I. KHAN PAKISTAN

Dr Umar Badshah[1] , Dr Salman Khan[2] , Dr Noorul Bashar[3] , Dr Ghulam Habib[4], Dr Amjad Khan[5] , Dr Muhibullah khan[6]

[1]House job District Headquarter Teaching Hospital Dera Ismail Khan, [2]Assistant professor District Headquarter Teaching Hospital Dera Ismail Khan, [3]House job District Headquarter Teaching Hospital Dera Ismail Khan, [4]House job District He House job District Headquarter Teaching Hospital Dera Ismail Khan, [5]House job District Headquarter Teaching Hospital Dera Ismail Khan, [6]House job District Headquarter Teaching Hospital Dera Ismail Khan,

Article Received: November 2019 **Accepted:** December 2019 **Published:** January 2020

Abstract:

Objective: *After dengue virus, the second most widely spread is crimean-congo hemorrhagic fever. The objective of the study is to determine the knowledge and level of awareness among students of gomal medical college and junior doctors aboute CCHF.*

Methodology: *This descriptive cross sectional study was conducted in gomal medical college in january & february2018 . Simple random sampling method was used to collect a sample of 50 participants. Participants were housejob doctors and final year MBBS students. Data was collected with a structured questionnaire which is having five-point scale. Data was analyzed through SPSS.*

Results: *Among 50 participants the mean knowledge of students was 3.6 which is good while those of junior doctors was 4.1 which is excellent according to our criteria.overall mean attitude of students was 3.2 which is fair while those of junior doctors was 3.7 which is good.*

Conclusion: *The knowledge of junior doctors was apparently nore than medical students. Knowledge and attitude of males and female was equal. Socioecnomic status has no significant effect on level of attitude and knowledge.*

Keywords: *congo heamorrhagic fever,doctor,medical stdents*

Corresponding author:

Dr. Umar Badshah,

House job DHQ teaching hospital D.I. KHAN,

Email: umaryousafzai26@gmail.com

03459366347

QR code

Please cite this article in press Umar Badshah et al., ***Assessment Of Knowledge And Attitude Towards Crimean Congo Hemorrhagic Fever Among Students And Junior Doctors In D.I.Khan Pakistan..,*** *Indo Am. J. P. Sci, 2020; 07(01).*

INTRODUCTION:

After dengue virus, the second most widely spread is Crimean Congo hemorrhagic fever. The disease was first characterized in the crimea in 1944 and given the name Crimean hemorrhagic fever. It was then later recognized in 1969 as the cause of illness in the Congo, thus resulting in the current name of the disaese[1] Being one of the most dangerous and deadly virus, CCHF results in high fever, back pain joint, headache, vomiting and stomach pain which may progress to severe nosebleeds, bruising and continuous bleeding in humans. In severe cases; shock, central nervous system dysfunction, coma, liver fai;ure, kidney failure, respiratory failure, or DIC maybe seen in advanced stages. The incubation time for the disease is 2-9 days which is directly proportional the routes of exposure[2]. Among all medically arboviruses and originated from segmented negative stranded RNA virus belonging to the bunyaviriddae, genus. CHF virus is relatively vulnerable, cannot live outside a host and is sensitive to light. It is inactivated at 56 degree centigrade for 30 minutes. It is sensitive to 1% hypo chloride and 2% glutaraldehyde. This disease is basically spread by bite of an infected tick or via aerosol generated from infected animal excreta and by domestic animals to the human contact with an ifected person's blood,tissue or fluid discharge is responsible for the transmission in human to the human.[3] When ticks are more active and questing hosts for blood feeding, outbreak of this disease occur particularly in warm seasons. Between April and September most cases were reported. Increased significantly the incidence of the CCHF in the CCHF infected areas by increasing mean temperature, normalized different vegetation index, savannah-type land coverage or habiate fragmentation. The spread should be further studied that may influence epidemiology that includes human behavior, climate and environmental factors. It should be considered in the potential changing epidemiology of CCHF facilitated tick production and global warming which are mainly attributed to climate change.[4] Among the emerging disease for which control and preventive measures should be reviewed and intensified, CCHF has also listed by WHO. Pakistan, Tajikistan, Afghanistan, Iran and turkey are the five countries having the presence of CCHF suggested by strong evidence according to our consistence measures.[5] By blood of infected animal or human, CCHF virus is transmitted to human. Increased animal and human migration, travel, the risk of bioterrorism and ecological deuteriation, acounting for spread of viral infections to new places and there incidence in endemic regions the above mentioned are contributing factors.[6] People predispose for this viral infection includes farmers, shepherds and Vetrimaaran's demonstrated as high risk group in endemic regions who are in occupational contact with livestock and wild animals. In endemic areas risk factors for tick bite are the recreational activities represented by picnic etc. The second major group at risk for infections is health care workers caring with CCHF patients. Percutaneous exposure is the highest risk of transmission. Removal time of the tick from the body is of great importance has been stated in the literature. The tick needs to be removed in the shortest time is possible without crushing it, removing its mouth or spreading any chemical substance on to it has been emphasized. The most advisedly method today is removing the tick mechanically. In order to remove tick,bare hand is restricted. Avoidance of the areas here ticks are abundant is the most effective preventive measures. To protect body from the ticks when they want to go in rural areas, repellents and wearied trousers are trucked in boots or socks and a long sleeved shirt trucked in at the waist.[7] Being one of the most dangerous and deadly virus, CCHF results in high fever, back pain joint,headache,vomiting and stomach pain which may progress to severe nosebleeds, bruising and continous bleeding in humans. In September 2010 an outbreak was reported in Pakistan's Khyber-Pakhtunkhwa province. The extent of the outbreak is uncertain, though some reports indicate 100 cases, with a case fatality rate above 10%. As death toll from CCHF or congo virus in Pakistan has reported to be 19 in 2016 with 5 reported in Karachi,12 in Queta and 2 in Bahawalpur and increasing with passage of time. The level of knowledge is different in different health care personals like doctors, nurses and paramedics. The diagnosis of CCHF based on a reverse transcription-based polymerase chain assay is recommended.[8]

MATERIAL AND METHODS:

This cross-sectional study was carried out in Gomal Medical college Dera Ismail Khan Pakistan in January February 2019. The study population was stratified proportionally into final year students and junior doctors and a random sampling method was used to collect a sample of 50 participants. Data were collected with a questionnaire consisting of two parts. First part of the questionnaire included sociodemographic variables. The second part consisted of a structured questionnaire which was having 9 questions for knowledge and 6 questions for attitude on a five-points scale.

The sociodemographic variables were age, gender, class of study (final year/junior doctor), language (urdu/pashto/saraiki), residence(urban/rural), type of student (hostelite/day scholar) and socioeconomic status.

Research variables were, level of the knowledge and attitude.

The purpose of the study was explained to the participants and their informed consents were obtained. The participants who requested their questionnaire scores were assured that their questionnaire score will be shared with them in a confidential way.

Data were analyzed using the SPSS. Descriptively all the variables were analyzed by frequency, percentage, valid percent and cumulative percent.

RESULTS:

This rerearch and study was conducted on 50 subjects, who were provided with proper study proforma to evaluate the reuslts.

About 25(50%) of subjects were male and 25 (50%) were female in this 36(72%) were under 25 years and 14 (28%) were above 25 years. 29(58%) were of urban areas while 21(42%) of rural areas. On the basis of designation 34(68%) were medical students of final year while 16 (32%) were junior doctors. Of the respondent 20(40%) were uru speaking 10 (20%) saraiki and 10(20%) pushto speaking. Relating to their family income 12(24%) subjects family income was less than 30000PKR while 36(74%) had family income greater than 3000PKR.

A criterion was made in which those mean was < 3 poor > 3-3.5 their knowledge was considor fair those between >3.5-4 was considor good and those >4 was considered excellent.

While enquired aboute the cause of disease the mean of students' knowledge was 3.2 while that of junior doctors was 4.2. when asked about the symptoms mean of high-grade fever by students was 3.0 while juniors' doctors were 4. Relating touches and pain mean of students was 3.3 and junior doctors was 4.0, relating the bleeding manifestation mean of the students was 3.1 & that of junior doctors was 3.5, when the knowledge relating the transmission mean of the student for tick was 3.6 and junior doctors was 4.2.

When asked about the risk of CCHF the people dealing livestock was target of majority with average mean of students was 3.6 and junior doctors was 4.0. Relating the to Rx of CCHF the students mean knowledge was 4.0 and junior doctors was 4.2. Vaccines is available in Pakistan…????Response of students mean was 3.7 and junior doctor was 4.0. When asked about the most common season of CCHF, students knew about it and their mean was 3.3 and junior doctors was 4.2. When asked about the prevention of CCHF the mean knowledge of students was 3.1 and junior doctors was 3.9.

Overall the mean knowledge of student was 3.6 which is good while those of junior doctors was 4.1 which is execellent according to our criteria.

The response of students and junior doctors were good in response to knowledge. When asked about fatality of disease the attitude of the students was 3.5 and junior doctors was 4.3. And when asked about the communicability of disease the mean attitude of students was 3.3 and that of junior doctors was 4.2. When asked wether the envirnment play a role in disease, the attitude mean of students was 3.4 and that of junior was 4.1.
Overall mean attitude of students was 3.2 which is fair while those of junior doctors was 3.7 which is good.

Table 1 age group

		Frequency	Percent	Valid percent	Cumulative percent
Valid	less than 25	36	72.0	72.0	72.0
	More than 25	14	28.0	28.0	100
	Total	50	100.0	100.0	

Table 2 residence of respondent

		Frequency	Percent	Valid percent	Cumulative percent
Valid	urban	29	58.0	58.0	58.0
	rural	21	42.0	42.0	100
	Total	50	100.0	100.0	

Table 3 designation of the respondent

		Frequency	Percent	Valid percent	Cumulative percent
Valid	medical student	34	68.0	68.0	68.0
	Junior doctor	16	32.0	32.0	100
	Total	50	100.0	100.0	

Table 4 language of respondent

		Frequency	Percent	Valid percent	Cumulative percent
Valid	urdu	19	38.0	38.0	38.0
	Sariki	11	22.0	22.0	60.0
	pashto	20	40.0	40.0	100.0
	Total	50	100	100.0	

Table 5 income status of the respondent

		Frequency	Percent	Valid percent	Cumulative percent
Valid	less than 30000PKR	12	24.0	24.0	24.0
	More than 30000PKR	37	74.0	74.0	98.0
	3.00	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

DISCUSSION:

This study was basically conducted in order to find out the knowledge and attitudes especially in students and junior doctors because there is a very minor literature from pakistan that eveluated the knowledge and attitude with perception about CCHF. The rate of accurate knowledge about this disease in participants is very low according to our results it is 29% from this we observed that people are less aware of this disease. About 33% of participants know that this disease is caused by a tick bite which is known as Hyalomma. The most frequently known initial CCHF symptom (93.7%) was fever among our study group and the least known was jaundice. Headache was mentioned by 65.9%, abdominal pain by 44.8% and nusea,vomiting and diarrhea by 61.0%. In a study conducted on healthcare personnel in balochistan regarding awareness of CCHF symptoms by 69.5%, headache by 19.5%, abdominal pain by 9.8 %, and vomiting by 19.5 % (sheikh et al,2004). The knowledge levels in our study were higher than that study. The reason behind our higher results might be the increasing incidence of CCHF cases in our country since 2002. According to the students we identified in this study that most of the students even do not know about the CCHF because only 20% of the students know about CCHF and the ratio of those which did not know about CCHF are the 59% that creates an alarming issue. Addition to this another important point which has evaluated by this study that only 24% of the students considor that CCHF is transmitted through thr tick bites and 66% of the students did not considor, it means that they have no idea about the main organism behind this pathogen , this is due to the insignificance study of CCHF in the literature. In the past studies important drivers of CCHF infection have been considered the temperature, precipitation and moisture indices[14]. In animals there is no evidence of apparent clinical presentation but in disease transmission cycle, acting as reservoir. Although, whole study proves that most respondents demonstrated average knowledge about transmission and manifestation of congo virus and majority of participants 37% according to our results does not know the mortality rate (death rate) of this disease which is about 10-40%. Typically, after a 1-3 day incubation period following a tick bite(5-6 days after exposure to infected blood or tissues), flu-like symptoms appear ,which may resolve after one week. In up to 75% of cases, however ,signs of hemorrhage appear within 3-5 days of the onset of illness in case of bad

containment of the first symptoms; first mood instability, agitation, mental confusion and throat petechial, then soon nosebleeds, and vomiting and black stools. The liver becomes swollen and painful. Disseminated intravascular coagulation may occure as well as acute kidney failure and shock, and sometimes acute from when the symptom appear, however 30% of the cases result in death on the second week of the illness. Protective clothing and gloves should be used whenever there is chance of contact with skin or mucous membranes of viremia animals,particularly when blood and tissues are handled.

Pakistan is lack of knowledge this is the major reason because people are less aware of this disease, they even do not know the ssigns and symptoms related to this disease. This article helps people to get knowledge and awareness about this disease.

CONCLUSION:

In our study it was found out that knowledge of junior's doctors was apparently more than medical students.

Knowledge and attitude of males and females were equal. Socioecnomic status has no significant effect on level of attitude and knowledge. Education to the masses sbout CCHF and its fatility should be given. Seminars and workshops should be conducted especially on Rural level to increase the awareness of people about CCHF. A concentrated effort is needed by media, doctors and health works to emphasize the importance of CCHF.

REFERENCES:

1. Sidira P, Maltezou H, Haidich A-B, Papa A. Seroepidemiological study of crimean congo haemorrhagic fever in Greece, 20009-2010. Clinical Microbiology and infection.2012;18(2):E16-E9.
2. Ertugrul B, Kirdar S, Erosay OS, Ture M, Erol N, Ozturk B, et al. The seroprevalence of crimean-congo haemorrhagic fever among inhabitants living in endemic regions of western anatolia. Scandinavian journal of infectious diseases.2012;44(4):276-81.
3. Rahnavardi M, Rajaeinejad M, Pourmalek F, Mardani M, Holakkouie-Naieni K, Dowlatshahi S. Knowledge and attitude toward crimean-congo heamorrhagic fever in occupationaly at-risk Iranian healthcare wrokers. Journal of hospital infection.2008;69(1):77-85.
4. Garrison A, Alakbarova S, Kulesh D, Shezmukhamedova D, Khodjaev S, Endy T, et al.Development of a taqman^{R}-minor groove binding protein assay for the detection and quantification of crimean-congo heamorrhagic fever virus. The american journal of tropical medicine and hygiene.2007;77(3):514-20.
5. Zavitsanou A, Babatsikou F, Koutis C.CRIMEAN CONGO HEMORRHAGIC FEVER: AN EMERGING TICK-BORNE DISEASE. Health science journal.2009;3(1).
6. Sharifinia N, Rafinejad J, Hanafi-Bojd A, Biglarian A, Chinikar S, Banaiardalani M, et al. knowledge and attitudes of the rural population and veterinary and health personnel concerning crimeaan-congo Hemorrhagic fever in western Iran in 2012. Florida Entamologist.2013;96(3):922-8.
7. Estrada-pena An. Forecasting habitat suitability for ticks and prevention of tick-borne disease. Veterinary parasitology.2001;98(1):111-32
8. Chinikar S, Persson SM, Johansson M, Bladh L,Goya M, Houshmand B, et al.Genetic analysis of crimean congo hemorrhagic fever virus in Iran. Journa of medical virology 2004;73(3):404-11.
9. Swanepoel R,Shephered A, Leman P, Shepherd S, McGillivray G, Erasmus M, et al. Epideomiologic and clinicsl features of crimean-congo hemorrhagic fever in southern Africa. The american journal of tropical medecine and hygiene. 1987;36(1);120-32.
10. Chinikar S, Ghiasi SM, Hewson R, Moradi M, Haeri A. Crimean-congo hemorrhagic fever in iran and neighboring countries. Journal of clinical virology.2010;47(2):110-4.
11. Ergonul O. Treatment of crimean-congohemorrhagic fever. Antiviral research.2008;78(1):125-31
12. Yadav PD, Cherian SS, Zawar D, Kokate P, Gunikar R, Jadhav S, et al. Genetic characterization and ,olecular clock analysis of the crimean-congo hemorrhagic fever virus from human and ticks in india, 2010-2011. Infection, genetics and evolution. 2013;14:223-31.
13. Gozel MG, Dokmetas I, Oztop AY,Engin A, Eadi N, Bakir M. Recommended precaution procedures protect healthcare workers from crimean-congo hemorrhagic fever virus. International journal of infectious diseases. 2013;17(11):e1046-e50.
14. Enaam-AL-Hagh C-G, Maryam Y, Salehinia H, Ali N, Masoud T. SCIENCE ROAD JOURNAL. The types and causes of medication errors in nursing students. 2014;2(8):48-54.
15. Gordin FM, Schultz ME, Huber RA, Gill JA. Reduction in nosocomial transmission of drug-resistant bacteria after introduction of an alcohal –based handbrub. Infection control.2005;26(07):650-3.