Case Report

Crimean Congo Haemorrhagic Fever, Lack of Basic Epidemiologic Information and Risks to Public Health

Sobia Qazi, Abida Pervez, Saadia Shahzad

Abstract: We report a case of Crimean Congo haemorrhagic fever in a health care worker who presented with a history of fever and mild mucosal bleeding. Although Crimean Congo hemorrhagic fever was first reported from Pakistan many decades ago, there is a lack of basic epidemiologic information in non endemic areas such as Lahore. This often precludes the diagnosis, which may prove detrimental for both the patient and health care workers.

Key words: Crimean Congo haemorrhagic fever, Epidemiology, Infection Control

Introduction

Crimean Congo Haemorrhagic Fever (CCHF) is a Viral Haemorragic Fever caused by Nairovirus of the Buyaviridae family. It is transmitted by the Hyalomma tick which feeds on various animals including livestock. The disease can by contracted by a direct tick bite, contact with infected meat or an infected person. The average case fatality rate is 40%.[1] Highly infectious blood from patients has caused several alarming nosocomial outbreaks, particularly when the index case was not suspected.[1-5] Despite the first case report from Pakistan in 1976, resulting in the death of a surgeon,[3] there is a lack of basic epidemiologic data. This results in significant danger to public health in public hospitals. We present a case report which highlights the various impediments faced by healthcare workers in the public sector to diagnose and manage such patients.

Case Report

The patient, a 30 year old female nurse presented to the Services Hospital emergency with presenting complaints of fever for 5 days, blood in the urine for 4 days, bruising all over the body for 4 days and loose stools for 48 hours prior to admission. Her history of present illness revealed that she developed sudden onset high grade fever recorded at 104 F by a thermometer. This was associated with rigors and chills. Some relief was obtained by self prescribed Ceftriaxone and Sulfadoxizine/ pyrimethamine. The fever was also associated with profound weakness and body aches. There was no history of drenching night sweats or any diurnal variation of fever. There was a history of non specific abdominal pain which was mild and generalized, intermittent with no aggravating or relieving factors. There was a history of occasional dry cough. 48 hours later she developed bruises all over her body along with bleeding from her gums, haematuria and menorrhagia. She passed five watery stools in 24 hours. The pertinent review of systems revealed no hemoptysis, upper or lower gastrointestinal bleeding, headaches, joint aches or swelling. She was a resident of Tehsil Samundri, however, she lived in the city of Loralai, Baluchistan, for the past 4 years where she was posted as a nurse in the Obstetrics and Gynaecology department at the district head-quarter hospital. She denied herbal and homeopathy use and there was no history of pets or exposure to any other animals. The patient was married and her last child was born 6 years prior to admission. She was referred from DHQ Loralai to Nishtar Hospital, Multan where she remained admitted in Nishtar Hospital, Multan for 48 hours. Apparently no tests were done and she was discharged. She remained unwell at home. As she had relatives in Lahore, she was brought to the Services Hospital emergency. Her physical examination revealed the patient lying anxiously in bed, Pulse: 74bpm, B.P. 110/65mm of Hg, temp: 98F, R/R 20/min. Scleral Icterus was positive. Petechiae were present on the soft and hard palate. There was mild epigastric tenderness without any visceromegaly. The rest of her examination was within normal limits.

Based on the clinical history and laboratory findings, the following differential diagnosis of Dengue, Malaria, Enteric fever or a Myeloproliferative disorder was generated. She was initially managed on the lines of DHF, Ceftriaxone 2 g i/v once a day was started for diarrhea. Her Dengue NS1 Antigen, IgM and IgG tests were negative. Smear for Malaria was negative. Over the next 36 hours the patient underwent marked clinical improvement along with an increase in platelet counts.

A sudden turn of events was marked by a phone call received by the Services Hospital administration

from the Loralai DHQ Hospital Administration. The patient had an exposure with a confirmed case of Crimean Congo Hemorrhagic Fever in Loralai who had died recently. As no public sector laboratory in Punjab for Crimean Congo Hemorrhagic Fever diagnosis was available, therefore the WHO representative was immediately called for specimen collection. The patient was isolated however; it was a struggle for the staff to obtain Personal Protection Equipment.

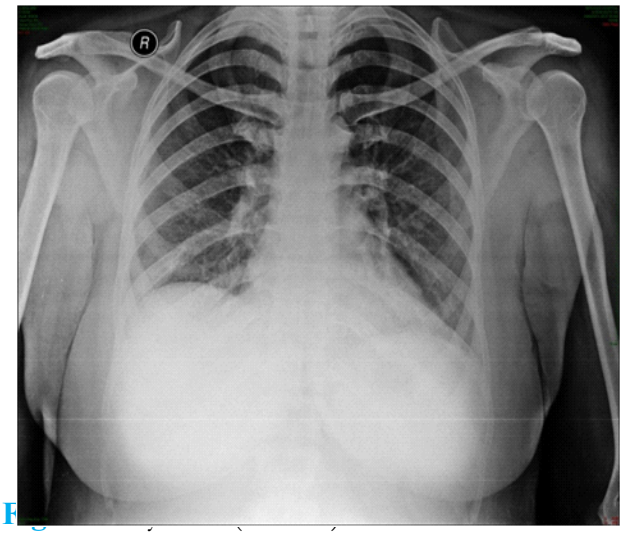
Table-1: Lab investigations.

CBC	29/07/2014	01/08/2014	02/08/2014
Hb	13.0	13.6	11.0
TLC	3.1	2.93	3.3
Plt	15	18	31
Retic	1.2%		
SGOT		4389	388
SGPT		819	15.4%
Alk.p		851	936
Urea/Creat	18/0.7	12/0.4	
Na/K	1403.7	141	16/0.6
		3.5	
INR		1.1	

As the patient had rapid and marked clinical improvement she was discharged. After discharge the CCHF PCR report from the National Institutes of Health, Islamabad was positive. The patient was seen in follow up, she and all her close contacts were healthy.

Discussion

Crimean Congo Haemorrhagic Fever (CCHF) has been reported in Pakistan for many decades now. Even now, there is a lack of disease awareness and many health professionals are unaware of the local disease epidemiology. The disease is not endemic in



Lahore but trainees in our unit are always given an update prior to Eid ul Azha due to increased risks posed by livestock. Many doctors were unaware that Loralai was in an endemic area of CCHF. Overcrowding and resource limitations made i extremely difficult to implement adequate infectiont control, namely patient isolation and access to Personal Protection Equipment. There was no local laboratory to diagnose the disease and the sample had to be sent to Islamabad which increased the result reporting time. Clinical experience with Ribavirin supports its use.[6] It is also recommended by the WHO.[1] As the patient rapidly improved and the confirmatory results were obtained after her discharge, Ribavirin was withheld. Public Health departments need to aggressively educate and sensitize health care workers about the disease Epidemiology and management. Government hospitals need to make infection control a priority and lastly, there needs to be more emphasis on the Viral Haemorrhagic Fevers and emerging infections in the FCPS Medicine curriculum.

Department of Medicine
SIMS/Services Hospital, Lahore.

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