Corresspondence

SOME EVIDENCES ABOUT CRIMEAN CONGO HEMORRHAGIC FEVER

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This refers toDr. Levent Doganci's letter published in your valuable Journal about Congo Hemorrhagic Fever (CCHF) entitled "Crimean Congo Haemorrhagic Fever as an indication for use of Ribavirin".[1] Crimean-Congo Hemorrhagic Fever is a widely distributed lethal disease, worldwide.[2] Human are usually infected with CCHF virus through a tick bite or close contact with viral contaminated tissues or with blood of domestic animals or of infected patients.[2-4] There are a few clinical and epidemiologically re-emerging points, which need to be highlighted about this deadly viral infection.

We reported a case-series about patients who suffered from CCHF in northeast of Iran (2004-2006). We saw a good clinical response to intravenous prescription or oral form of Ribavirin at the early stages of the disease along with high dose corticosteroids, intensive monitoring, careful attention to fluid balance, correction of electrolyte abnormalities, appropriate treatment of secondary infections, enough oxygenation, massive transfusion and hemodynamic support; depending upon the situation.[4]

Human cases of Crimean Congo Hemorrhagic Fever (CCHF) have been reported from Turkey, since 2002 with increasing morbidity rate and some fatalities. CCHF can be considered as an endemic lethal disease in that region.[5,6]

Based on our clinical experience, Ribavirin could be considered as a useful medicine for CCHF therapy in endemic regions but in the early stages of clinical process. Ribavirin was also recommended in post-exposure prophylaxis to soldiers in Operation Desert Shield/Storm and in Korea.[7] Clinical features usually include a rapid progression characterized by hemorrhage, myalgia and fever, with 30% mortality rate and it can develop up to 50%.[8] According to the clinical response and cure seen in most of the patients who were treated with antiviral agents such as Ribavirin accompanied with corticosteroids, intensive monitoring and conservative therapy, it can be concluded that this treatment can be considered as a good treatment protocol, if prescribed at the early stages. Delay in diagnosis decreases the efficacy of treatment and aggravates the outcome of the disease.

This important fact that "early ribavirin use in the beginning of illness has significant positive effect on survival" has also been emphasized in other reports.[9-11] In addition, Ribavirin is a WHO recommended anti-viral for CCHF. Thus, we suggest this method of treatment as a basic treatment protocol in the early stages of CCHF.[4]

It should also be noted that one of the most prominent differences between Iran and Turkey and some other countries is the route of virus transmission. As Dr. Doganci pointed out in the manuscript, tick exposure and tick removal can be the main life saving protocol,

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while the major root of transmission is the tick bite. It is confirmed that one of the major roots of transmission is the tick bite[2,3]; but some other reports showed that close contact with sheep had the main role in the transmission.[12] It should be kept in mind that in some special areas, like Northeast of Iran and Turkey, which sheepherding is one of the most common jobs, the route of contamination could be different.

Therefore, CCHF must be considered as a job hazardous. Sheep, goats and cattle develop high titers of virus in blood, but tend not to fall ill. People who work with livestock, animal herders and slaughterhouses workers, in endemic areas like Iran and Turkey are at risk of CCHF and must take measures for protection. Medical laboratory staffs are another high-risk group. Diagnosis of CCHF is important to prevent the spread of CCHF virus among the health-care workers and relatives of patients. Protection of tick exposure and appropriate tick removal has a life saving potency.

We fully support the valuable advice of the author, and suggest that in low–income affected population who come from the farms of rural areas, CCHF can be added as an indication of Ribavirin to solve this life–threatening problem. In the endemic areas, ecological changes, poverty, social instability, insufficient medical equipment, and absence of standard infection control practices have contributed to increase transmission of virus.[8] So; CCHF is a disease with several predisposing factors, and its outbreak constitute a threat to public health services because of increased transmission in its natural environment, in the community, and in the hospital settings.

A practical advice for protection can be as following: use insect repellent on exposed skin besides wearing gloves and other protective cloths. Insect repellants containing DEET (N, N-diethyl-m-toluamide) are the most effective in warding off ticks.[13] Individuals should also avoid contact with the blood and body fluids of livestock or human who show symptoms of infection.[13]

An inactivated, mouse-brain derived vaccine against CCHF has been developed and is used on a small scale in Eastern Europe. However, there is no safe and effective vaccine widely available for human use.[13] Immune plasma has been used to treat CCHF patients, but its effects have not been studied with controls.

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