



## **Crimean-Congo Haemorrhagic Fever in Persian Traditional Medicine**

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### **Dear Editor-in-Chief**

Crimean-Congo Haemorrhagic Fever (CCHF) is a viral disease which presents with an acute haemorrhagic fever (1), first described in Crimea in 1944. In August 1999 the first Iranian confirmed case of CCHF was registered, but it seems likely that CCHF has occurred in Iran for hundreds or perhaps thousands of years. In the older texts of Persian Medicine (PM) there is evidence that the disease had been present in Iran long before the first case was diagnosed (2). Jorjani (1042–1136 A.D.), under the heading of insect and vermin bites in his book *Treasure of the Khwarazm shah (Zakbireye Kharazmshahi)*, described a disease which was transmitted by the vulture louse - a creature similar to a louse and a tick, but smaller. The bite site is so small that it is difficult to see, however, the harm caused by the bite is considerably large, resulting in bleeding from the nose, bladder, rectum, and gums. There are hematemeses and hemoptysis, and once out of control, no treatment is able to cure (3). Before and after him, other physicians such as Rhazes (9th century), Akhawayni (10th century), Haly Abbas (10th century), Avicenna (10&11th centuries), Arzani (16th century) also described the disease's

etiology, Clinical findings and treatment in their respective books (3-7).

As posited by Parvinroo, "According to the literature available on PM, the elements (Fire, Air, Water, Soil) are small particles indivisible to different components and are essential constituents of human and non-human beings. Warmness, coldness, wetness and dryness are the basic qualities of the elements, each element being associated with a pair of them: Fire is warm and dry, Air is warm and wet, Water is cold and wet, and Soil is cold and dry." After action and reaction of these four elements, a homologous quality will be dominant in composite objects, called the *Mizaj* or temperament (8).

In this viewpoint, each person has a unique characteristic named their temperament which is recognized by his or her morphological, physiological and psychological features. Each person is considered to be in a healthy state when his or her *Mizaj* has been balanced and diseases occur when the *Mizaj* becomes imbalanced (9). Non-human beings have their own specific *Mizajs* and can affect our body by their qualities (8).

According to the PM point of view of CCHF, upon the entrance of a foreign cause into the

body of a person, liver function is disturbed and the patient's *Mizaj* (especially that of the blood) changes, getting warmer and dryer than normal, causing bleeding to occur from the body's different orifices. Hence, for treatment, it is recommended to reverse the patient's *Mizaj* to a cooler and wetter state through the use of *Mobarredat* and *Motfiat*. *Mobarredat* and *Motfiat* are a group of drugs which decrease the warmth of the *Mizaj* and are found in food products such as lettuce, chicory, cucumbers and squash. Besides, systemic medications, topical medications and antidotes are recommended, and general management measures should be applied for the treatment of bites (3-7).

Recently, despite a long period of time with the lack of specific medications for treating CCHF, some recommended regimens such as the Leshchinskaya hospital care regimen have resulted in an appreciable reduction in mortality rates (10). Now, in spite of the availability of some antiviral drugs, such as Ribavirin, which is effective in Iran but another research, has suggested that patients with CCHF should only be given supportive care, and Ribavirin is not effective against Crimean-Congo haemorrhagic fever (11).

It is now recommended to pay special attention to the aforementioned theory through the evaluation of effectiveness of PM treatments in clinical trial studies.

### Conflict of interest statement

The authors have no conflict of interests to declare.

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