

Can sandfly fever be mistaken with influenza?

There are at least three types of influenza virus (A, B, and C) that belong to family Orthomyxoviridae.^[1] A fourth family of influenza virus has also been proposed-influenza D, which was first isolated in 2012.^[2] The type A has several subtypes based on two enzymes that are located on the virus surface: hemagglutinin (HA) and neuraminidase (NA). The disease has been seen as a pandemic and an epidemic in humans and animals.^[3] The genetic mutation in shift and drift of viruses on the two enzymes mentioned above may be the base of pandemic or epidemic circulation of the virus. It has to be said that different types of HA and NA form the basis of the *H* and *N* distinctions in, for example, *H5N1*. There are only 16 H and nine N subtypes known, but only H 1, 2, and 3 and N 1 and 2 are commonly found in humans.^[4,5] The type B is mostly seen as an epidemic form in winter season and type C is mostly seen in the birth population and less in humans.^[6,7] Nowadays, the effective vaccine is prepared annually and recommended for high-risk groups like asthma, diabetes, heart disease, and immune-compromised patients.^[8] The disease was seen in many parts of the world in all seasons of the year.^[9]

The other disease is sandfly fever, also known as phlebotomus fever, three-day fever, or pappataci fever. It is an arbovirus disease and caused by different types of phleboviruses belonging to family Bunyaviridae and transmitted by female phlebotomine sandflies.^[10,11] Sandfly fever occurs in tropical and semitropical countries, particularly in the west of Asia. The disease has been reported from the Balkans, Russia, Iraq, Pakistan, India, Iran, and Persian Gulf regions.^[12-17] The main signs and symptoms of the disease are fever-like influenza

(>39- 40°C).^[18] However, other clinical symptoms like photophobia and muscle ache, malagia may be different from influenza. The difference between the disease in endemic areas is mostly difficult and may need an expert physician to first find out differences in clinical symptoms differences and then do extra par clinical tests to help the patients. You suppose that influenza is a predominant disease in the populations that are exposed to sandfly fever disease too. How the fever could be differentiated? How signs and symptoms, which are very similar to each other, could be diagnosed?^[19-20] In fact, highly expert physicians along with serological and molecular techniques are needed in order to find the exact disease, particularly in endemic areas. Therefore, in this letter to editor, I would like to emphasize that any similar patients must be together considered as two diseases, which is mentioned above. Of course, the patients with both infections that are mentioned above need more monitoring and care than others.

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Conflicts of interest

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