

Are There Any Other Serotypes of Sand Fly Fever That are Important in Terms of Public Health and They are Not Identified Yet?

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Letter to the Editor

Introduction

Sand fly fever is a known as vector borne diseases [1]. Still is unknown for different health care workers because of lack of education in their courses in universities [2]. The disease has different name including three day fever, Pappataci fever and Phlebotomus fever [3]. The disease could be seen in different parts of the World including mostly Persian Gulf region and west of the Asia and even in Europe. There is no evidence about this particular disease in other continent perhaps for lack of studies in this field. The main sign and symptoms of the disease are fever, photophobia, and muscle pain in different parts of the body [4]. The disease may be mistaken with different diseases including malaria, influenza, and heat stroke and perhaps for other similar fever infectious diseases [5]. There is no specific cure for that. No vaccine available for prevention of the disease at the present time. The disease may be seen in non-immune people in epidemic or sporadic form when they are travelling to endemic foci [6]. Thus sand fly fever remains a significant health problem in different parts of the world (i.e. Africa, the Mediterranean Basin, the Middle East, Central Asia, and Europe) [7,8]. And given that the mosquito carries both human blood and rodents, and perhaps animals, birds [9-11]. The disease is transmitted to humans by female species of *Phlebotomus*, mostly *P. papataci*, *Phlebotomus papatasii*, *P. perniciosus*, and *P. perfilliewsi* during blood sucking which is distributed in many parts of the world [12]. The vector very similar with leishmaniasis, which is endemic in more than 88 countries at the present [13] with regard to virology, Sand fly virus belongs to the *Bunyaviridae* family and viruses of the family *Bunyaviridae* (the bunyaviruses) possess three distinct linear, single-stranded, negative or ambisense RNA segments (large, medium and small) [14]. Sand fly fever as *Bunyaviridae* virus are distributed

worldwide mainly in Europe, Africa, Central Asia, and the American continent and several serotypes has been introduced so far [15]. Sand fly fever is seen in a wide geographic area of the World. It is a self-limited benign disease; it may cause a severe clinical picture and need to be evaluated in the differential diagnosis of the patients presented with fever, myalgia and headache along with thrombocytopenia, leucopenia and elevated liver enzymes. Travelers should be informed before going to endemic areas during summer months. Military forces who have been in the endemic regions are also under risk and an outbreak of fever without a known source after returning home from an endemic area should raise the suspicion for sand fly fever and other possible vector-borne diseases. The disease also became very important from the aspect of traveler's Health and military medicine. Different standard health measures must be used together in order to prevent the disease. But a question arisen 'Are there other serotypes of sand fly fever that are important in terms of public health that have not yet been identified? As you know, this viral disease, such as many diseases like AIDS and hepatitis, etc., which everyone, especially people, is aware of, is basically ill for medical reasons, let alone the general public. Basically, the study of the disease even in endemic areas has been underestimated. It is unclear what human serotypes in these animals are causing the disease and are basically other viruses that are created in humans or animals and birds too. In fact, it is not clear various serotypes based on laboratory diagnoses have the same clinically sign and symptoms or not? Anyway the disease is not clear, and research should be done more and more in this regard so that the results correctly answer the question. Of course the most laboratory diagnoses should be done based on serological test and virus antigen assay [16]. Therefore, we should wait and see what new scientists have in the future.

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