



ISSN: 1697-090X

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Rev Electron Biomed / Electron J Biomed 2015;3:3-5.

Editorial:

EMERGING VIRUS: THEY ARE CURRENT

José M^a Eiros Bouza, Angel San Miguel.

**Facultad de Medicina y Hospital Universitario "Río Hortega".
Valladolid. España**

[eios @ med.uva.es](mailto:eiros@med.uva.es)

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Recent developments concerning the appearance of a fatal case of virus Crimean-Congo Hemorrhagic Fever (CCHF) in Spain and infection of a health care professional who lent have jumped to current news.

The emergence of a common virus causing infections elsewhere in humans is an expected reality. The term of emerging viral diseases includes both new appearance in the population as those previously known that at any given time have an exponential increase in incidence in epidemics or outbreaks or modify their geographical distribution.

The mechanisms that facilitate the spread of these viruses can be classified into three groups. First, by the appearance of an unknown virus thanks to the evolution of a new variant. Secondly it may happen one interspecies leap, introducing a new host in the life cycle of the virus. Finally, it can produce the geographical spread of a virus traditionally limited to an ecological niche, which originally emerged.

These agents share a number of characteristics that set the pattern emerging viruses such as possessing an RNA genome, be zoonotic, vector-born to humans. Concomitantly the virus must acquire the ability to recognize conserved in several species while implanted in ecosystems that favor spread

of the virus¹ receptors. A relevant molecular aspect is that viruses themselves can get to adapt to the environment, especially when their genome is RNA, in the replication of RNA polymerases assume a high rate of errors that can facilitate changes involving receptor binding or induces a different from the immune response generated against the predecessor strains².

There are several factors that contribute to facilitate the emergence of viral infections that are conceptually inherent in the susceptible population, the virus itself and the environment where they can interact both³. The current trend of migration to urban centers involves major demographic changes, to which we can add the forced displacement caused by armed conflicts that displace millions of people. The WHO estimates that by 2025 65% of the world population will live in cities. Global climate change affects strongly because sometimes causes the migration of animals, potential vectors, species in search of a favorable environment also influences the availability of water. With global warming settlement in areas not previously inhabited the vector is favored. A key factor favoring the expansion is poverty.

Social inequalities favor overcrowding and poor sanitary conditions in the most disadvantaged population groups, which significantly increases the probability of transmission between humans and between species⁴. Throughout history travel has led on many occasions the spread of infectious diseases such as smallpox or those associated with rodents. Although there are currently major advances in communications and health alerts, there is also a greater flow of travelers around the world that can make a vector or infected individual to move away, introducing the virus into a new habitat⁵.

Several research groups in an interdisciplinary way Zoonoses have turned their attention to the Crimea Congo virus in our country. Including the group led by Dr. Oteo Revuelta the Biomedical Research Centre of La Rioja, which this year has published a paper, whose lead author is Dr. Palomar, in which the presence of this virus is investigated in ticks collected both patients in our country like birds in Morocco and Spain, undocumented infection in the same⁶. For years it is known in specialized forums that this and other agents are under study and knowledge. And this guarantees the competence and vision of many researchers who are not always recognized by society and the system they serve.

Our country exhibits ability to perform a specific virus diagnosis and from the National Center for Microbiology their professionals have returned to prove it. As far as I know their level and dedication are at the level of excellence⁷. We must draw conclusions from how good pointer represents the work of those in the research, diagnostic and epidemiological shed exercise their professions in our country and insist their activity as long⁸ should be recognized. Our challenge is to keep training, study and acquisition of knowledge about the CCHF virus. This without forgetting the just recognition of those who dedicate their life activity and knowledge of emerging viruses. In this issue of the Journal several originals that attest to its current published today.

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CORRESPONDENCE:

José M^a Eiros Bouza.
Microbiología. Sexta Planta. Facultad de Medicina.
Avda Ramón y Cajal 7.
47005 Valladolid.
España
Mail:[eios @ med.uva.es](mailto:eiros@med.uva.es)