

Emerging Viruses: Nature & Current Affairs

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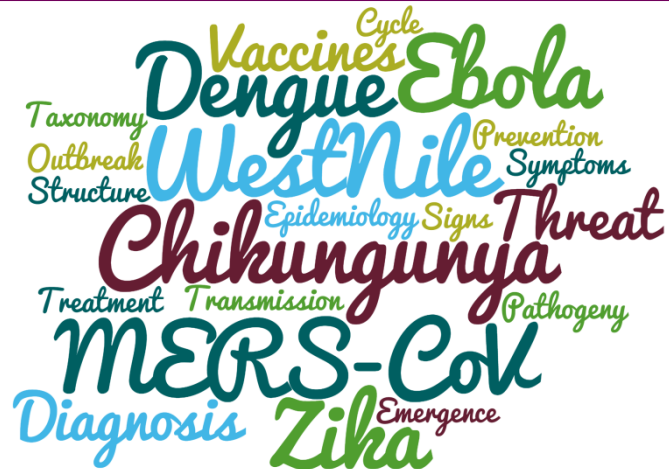
Introduction

In recent years, Europe has seen an increase in cases related to viruses that have never before been seen in the area. In front of this situation, it is necessary for the whole population to recognize these viruses and to help prevent further transmission.

Objectives

- Didactically, transmit information about various emerging viruses and the diseases they cause.
- To show the transmission cycle the different viruses followed and why they are considered as emerging.
- Raise awareness of the importance of prevention in these cases.

What will I find in this website?



What kind of information does it contain?

NATURE

What structure has

Chikungunya virus? Fig.1

CHKV is a small (with a 60-70 nm diameter), spherical, enveloped, positive single-strand RNA virus¹.

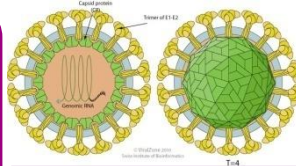


Fig. 1: Chikungunya virus structure. ViralZone Swiss Institute Bioinformatics. Reproduced with permission.

What symptoms has the infection of West Nile virus?

In most cases, the infection is asymptomatic or the symptoms are similar to the ones that the flu virus causes. But, there is 1% of people infected that will suffer the severe form of the infection, which affects the neurologic system of the patient².

Where can I find Dengue virus in Europe?

Currently there aren't any outbreaks in Europe of this virus, but every summer new cases are reported to the sanitary authorities in countries all around Europe³.

Once a new case is detected, the infection is controlled to avoid further transmission³.

CURRENT AFFAIRS

Is Zika virus a threat to Europe?

Yes, but not. It is not likely that the mosquito vector of the disease will arrive to Europe, but the people visiting endemic countries will be at risk to get infected⁴. Currently there is no vaccine or treatment for the severe forms of the infection⁴.

Are there any vaccines against Ebola virus?

Yes. In some countries a new vaccine has appeared recently⁵.

VSV-EBOV prevents from the infection of the virus and, if they can prove the vaccine to be 100% save, in a few years will be available globally⁵.

What techniques are used for the diagnostic of MERS-CoV infection?

Mainly, two different kinds: molecular and serologic, depending on the doctor criteria⁶.

There are RDT in the market but there are still studies in process⁶.

And much more...

Conclusions

It is not likely for any of these virus to become an important threat in the European region in the following years, but we must be aware that some of them are already circulating inside this area. The most important part is to be forewarned and to know the symptoms of each virus, and in case of infection, to go to the nearest medical centre. Travellers are the main risk group and it is their responsibility to inform themselves before travelling to an endemic country and to look out for any sign after the journey.

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