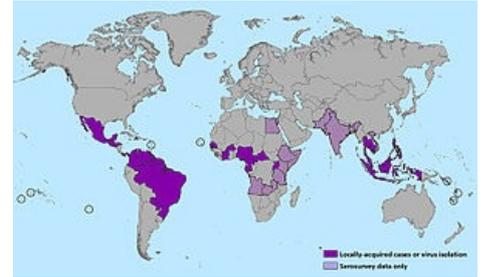


Zika

Zika is an infectious disease caused by the Zika virus, transmitted to humans by infected *Aedes aegypti*. It usually has a mild course, 80% asymptomatic, but it has been suspected that it causes microcephaly in the baby when it infects a pregnant woman and that it could cause syndrom Guillain-Barré. The virus is currently spreading rapidly, especially in Latin American countries. Treatment is only symptomatic, vaccination doesn't exist. ^[1]

Source of the infection

Zika virus is a **single-stranded RNA** (their RNA has an "antisense" character, so it must be translated into mRNA) virus of the genus **Flaviviridae**. Primates are probably the main reservoir.^[1] It was first identified in Uganda in the forest of the same name in 1947 in primates (Makak rhesus) and in 1952 in humans. ^[2]



Countries with reported occurrence of Zika infection^[1]

Transmission

The Zika virus is transmitted to humans through the bite of an infected *Aedes aegypti* mosquito. This type of mosquito also spreads dengue and chikungunya viruses. Mosquitoes are active mainly **during the day**, live near people and lay their eggs in and around standing water. It is the only one that can be transmitted sexually.

It is rarely possible to transmit the infection from an infected pregnant woman shortly before giving birth to a newborn. There is speculation about the possible transfer of the virus from the pregnant woman to the fetus during pregnancy. Transmission of this virus through breastfeeding **has not yet been described**.

One case of possible blood transfusion transmission and one case of possible sexual transmission have been reported.

The incubation period is unknown, but is likely to be several days to a week. An infected person is contagious in the first week of infection, so they should avoid mosquito bites to prevent further spread of the infection.^[1]

Occurrence

The Zika virus was originally spread in Africa, Southeast Asia and the Pacific Islands. In May 2015, the virus spread in Brazil, since then it has spread to other countries. Countries with active Zika virus outbreaks currently (January 2016) include: Barbados, Bolivia, Brazil, Colombia, Dominican Republic, Ecuador, El Salvador, French Guiana, Guadeloupe, Guatemala, Guyana, Haiti, Honduras, Martinique, Mexico, Panama, Paraguay, Puerto Rico, Saint Martin, Suriname, Virgin Islands, Venezuela; Samoa; Cape Verde. ^[1]

Symptoms

About 1 in 5 people infected will get Zika. The most common manifestations include **fever, maculopapular exanthema, joint pain or conjunctivitis**. Other symptoms include muscle aches and headaches. These are usually mild symptoms that last a few days to a week. A severe course is unusual, a fatal course is rare. The symptoms of Zika are similar to dengue fever či chikungunya.^[1]

In 2013, cases of Guillain-Barréwere syndrome reported in French Polynesia and Brazil in patients with probable Zika infection. The connection between the spread of the Zika virus and the rise in the incidence of newborns with microcephaly is currently being investigated in Brazil.^{[2][1]}

Diagnostics

Diagnosis is based on the clinical picture and epidemiological anamnesis — travel to locations with the occurrence of infection. PCR methods and serology are used. It is necessary to take into account the cross-reaction of dengue or CHIKV or yellow fever.

In the first week after clinical manifestation, Zika virus can be detected in blood serum using **RT-PCR** (polymerase chain reaction coupled to reverse transcription). Virus-specific IgM typically appears at the end of the first week of illness. Cross-reactions with related flaviviruses (e.g. dengue and yellow fever viruses) make diagnosis difficult, differentiation is made possible by the detection of virus-specific neutralizing antibodies. ^[1]

Differential diagnostics

The differential diagnostics has a wide spectre: dengue fever, leptospirosis, malaria, rickettsiosis, group A streptococcal infections, rubella, measles, parvovirus, enterovirus, adenovirus and alphavirus diseases (e.g. Chikungunya, Mayaro, Ross River, Barmah Forest, O'nyong-nyong and Sindbis viruses).^[1]

Therapy

Treatment is only **symptomatic**, i.e. rest, plenty of fluids, analgesics, antipyretics. Until dengue fever is ruled out, it is not advisable to use aspirin and non-steroidal anti-rheumatic drugs due to the risk of bleeding. ^[1]

Prevention

There is no vaccine against the Zika virus. The only possible prevention is to avoid mosquito bites when traveling to countries where mosquitoes are found, i.e. using repellents, mosquito nets, wearing long-sleeved clothes and long pants, etc.^[1]

Summary video



Links

Related articles

- Flaviviruses
- Prevention and prophylaxis of tropical diseases in travelers

External links

- <https://www.cdc.gov/zika/>

References

1. CDC,. *Zika Virus* [online]. [cit. 2016-01-27]. <<https://www.cdc.gov/zika/>>.
2. WHO,. *Zika Virus* [online]. [cit. 2016-01-27]. <<http://www.who.int/en/news-room/fact-sheets/detail/zika-virus>>.