

Treatment of West Nile Fever virus infection by plasmapheresis

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Introduction

West Nile Fever virus infection has been diagnosed since 1960 in Hungary, which is spread by mosquito bites and blood (transplantation, blood transfusion, infected mother to infant). Its main spreading agents are Egyptian stinging leash and its carriers, the migratory birds. In our case, a 39 years old female went to a hospital with high fever, headache and skin rash. In a short time, pain occurred in her lower extremity. Based on symptoms of polyradiculitis, meningitis also was suspected. Her leg pains rapidly worsened.

Objectives

Finding the cause of patient's complaints, mitigating and eliminating the symptoms.

Methods

Based on examination by an infectologist and a neurologist, spinal puncture, complete serological tests, skull CT and electro-neurographic test were performed. Spinal puncture proved aserosus meningitis. Result of the serological test was an acute or recently occurring virus infection of Western Nile virus; as a result, 5 sessions of plasmapheresis treatments were initiated.

Results

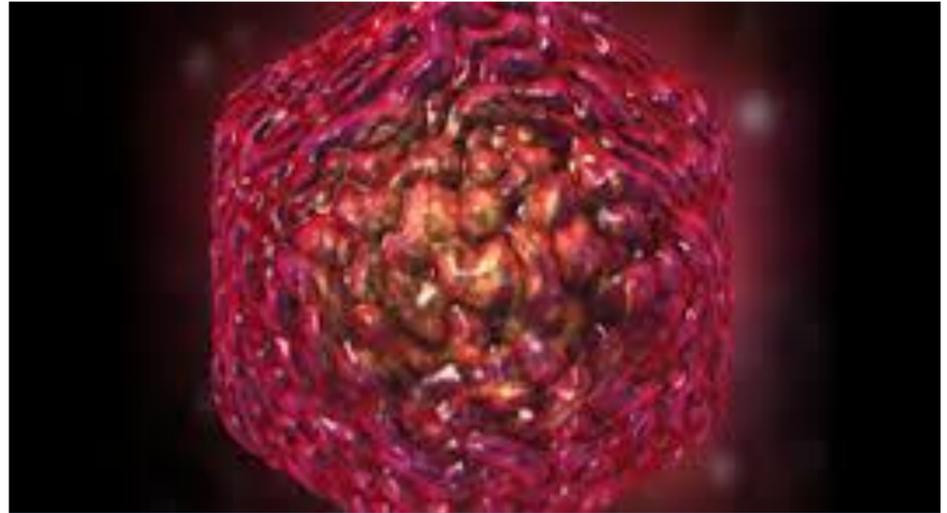
During plasmapheresis, plasma was separated from blood and high molecular weight auto-antibodies, immune complexes, paraproteins, cytokines, complementaries were removed. The amount of removed plasma was replaced by fresh frozen plasma, or 20% of human albumin. We treated the patient 5 times in every other day. Patient's fever lasted 10 days, her lower limb movement failure did not improve, therefore a stroke steroid therapy in herpesin protection was initiated. As an effect of the treatments, paresis showed an improvement, patient left the bed after 3 weeks, and made a few steps with an impeller.

Conclusion

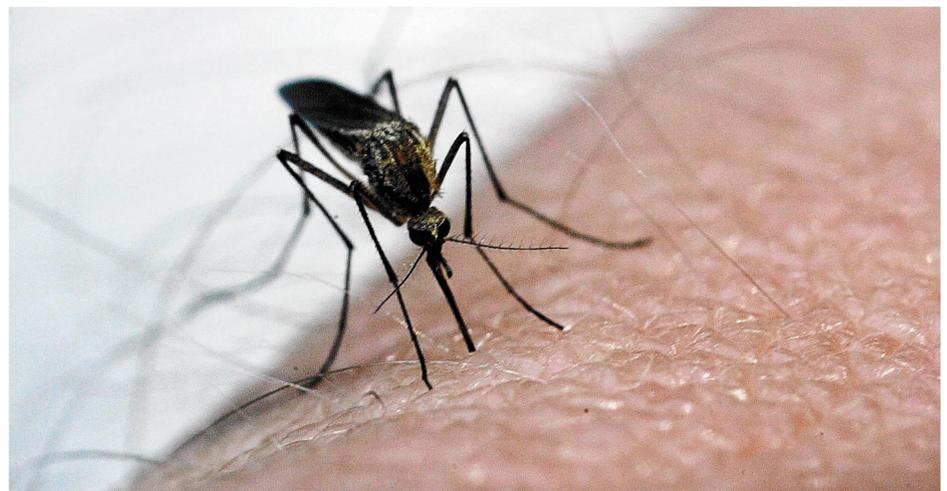
Most important is the early diagnosis and the establishment of an appropriate medical finding based on symptoms. The general climate change can contribute to the spread of the disease in our country. Precautionary measures include protecting the body in high risk areas and extermination of mosquitoes as vaccination does not exist.

References

1. <https://www.dizziness-and-balance.com/disorders/infections/West%20Nile.htm>
2. <https://www.cdc.gov/westnile/symptoms/index.html>
3. <http://www.oie.int/en/animal-health-in-the-world/animal-diseases/west-nile-fever/>



Picture 1. The patoghren of West Nile Fever
<https://www.equus.hu>



Picture 2. The Mosquito
<https://www.google.com/Culex>



Picture 3. Plasmapheresis – own picture