

SEVERE WEST NILE VIRUS (WNV) INFECTION IN A PATIENT WITH A KIDNEY TRANSPLANT

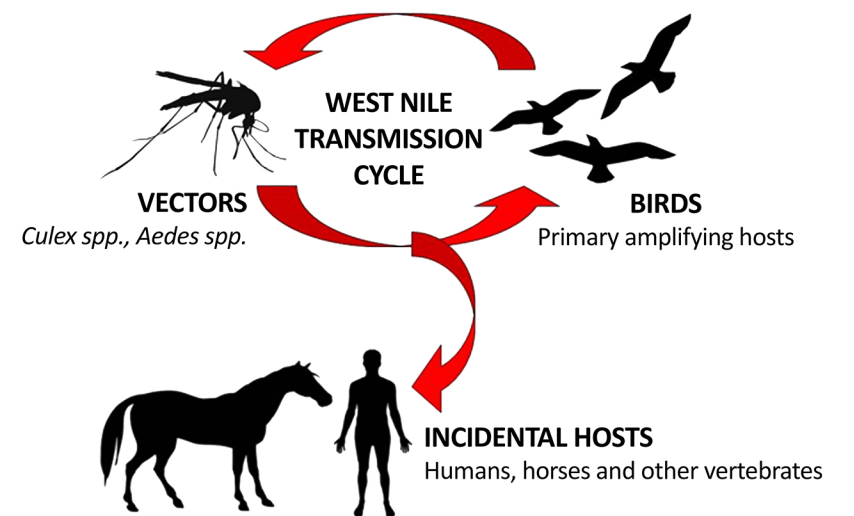
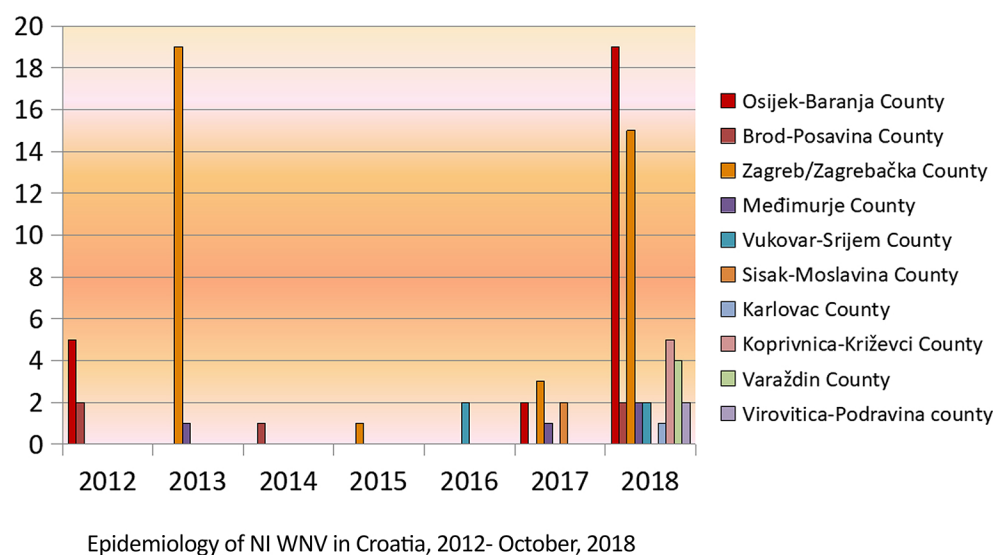
Sara Fares¹, Tomica Bratić¹
Mentor: Marija Santini^{1,2}
Ivan Christian Kurolt², Tatjana Vilibić Čavlek^{1,3}
Klaudija Višković²



1 School of Medicine, University of Zagreb, Zagreb, Croatia;
2 Department of Intensive Medicine and Neuroinfectology, University Hospital for Infectious Diseases "Dr Fran Mihaljević", Zagreb, Croatia
3 Department of Virology, Croatian National Institute of Public Health, Zagreb, Croatia

ABSTRACT:

We present a case report of an immunosuppressed adult male patient with severe WNV meningoencephalitis who was infected during the largest outbreak in Croatia so far, in summer and autumn 2018. Diagnosis was confirmed by detection of WNV RNA in urine using RT-PCR, while serologic response was delayed. This patient received supportive care and his immunosuppression was stopped. This case highlights the need of awareness of this emerging zoonosis, mostly affecting immunocompromised and elderly patients.



Special thanks to Doc. Dr. sc. T. Vilibić Čavlek and Prof. dr. sc. Lj. Barbić

INTRODUCTION:

WNV is a member of the *Flavivirus* genus, Japanese encephalitis serocomplex. The virus is maintained in an enzootic cycle between birds and mosquitoes (*Culex*), with humans as incidental hosts. Although most infections are asymptomatic, nearly 20% present with West Nile fever and in <1% neuroinvasive infection occurs (meningitis, encephalitis, myelitis). Diagnosis of NI WNV is confirmed by detection of IgM and IgG antibodies in CSF and serum, but PCR detection of the viral RNA in serum, urine or CSF is useful when serologic response is delayed. There is no causal treatment of NI WNV yet.

CASE REPORT:

WNV RT-PCR in urine +, in serum -,
serology negative, mechanical ventilation

GCS 9, CSF, Meropenem:

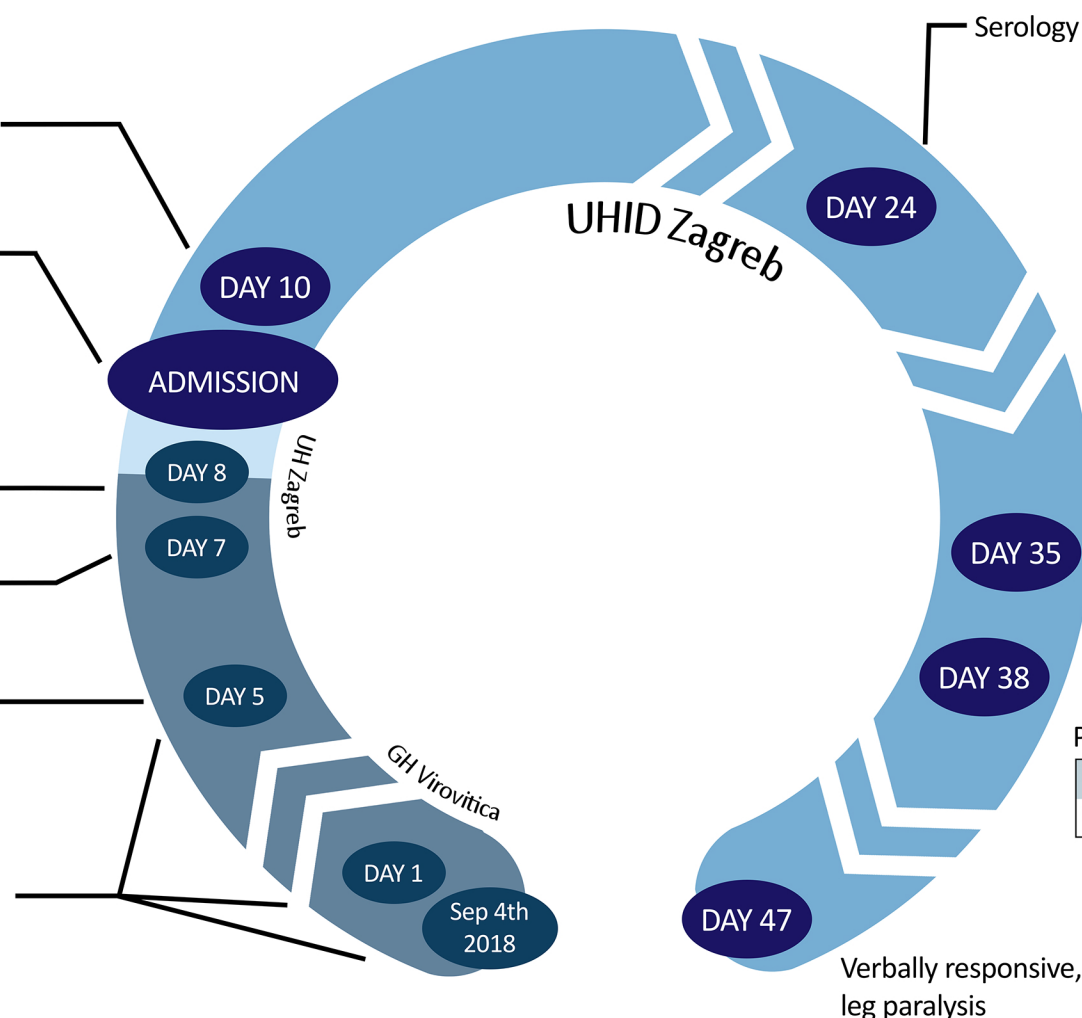
Cells	1520/mm ³ (PMN 47%, MONO 53%)
Erythrocytes	853/mm ³
Proteins	1.58 g/L
CSF glucose	2.9 mmol/L (CSF/serum 51%)

Occipital headache, hand tremor,
Meningeal syndrome, brain CT- normal

Urine retention, fever 38.5°C, chills,
shivering

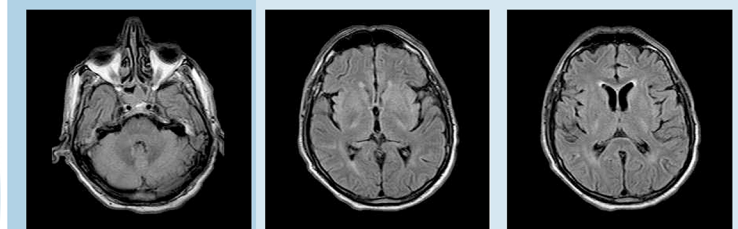
Inappetence, difficulty urinating, 37.2°C

Diarrhea, 37.4°C, pain in abdomen,
general weakness



Date	Type	WNV IgM	WNV IgG
14.09.2018	serum nr. 1	negative (0,49)	negative (<2)
14.09.2018	CSF	negative (0,11)	negative (<2)
18.09.2018	serum nr. 2	positive (5,05)	positive (66,36)

Brain MRI



- FLAIR sequence
- Discreetly higher signal intensity of the cerebellum

- FLAIR sequence
- Higher signal intensity in the basal ganglia

PCR

Date	Type	WNV RNA
12.10.2018	serum	negative
12.10.2018	urine	negative

CONCLUSION:

A NI WNV case is presented in which intensive care support and stopping of immunosuppression was needed. This case indicates the importance of including WNV in the differential diagnosis of aseptic meningitis during the arbovirus transmission season.