

**O1110 Prognostic factors for evolution of West Nile virus neuro-invasive disease**

Corneliu Petru Popescu<sup>\*1</sup>, Mihaela Zaharia<sup>2</sup>, Delia Stanciu<sup>2</sup>, Melinte Violeta<sup>1</sup>, Cristiana Cristea<sup>1</sup>, Bianca Voinescu<sup>2</sup>, Elena Nedu<sup>2</sup>, Filofteia Cojanu Banicioiu<sup>2</sup>, Olivia Burcos<sup>2</sup>, Adelina Dogaru<sup>2</sup>, Alma Gabriela Kosa<sup>2</sup>, Daniel Codreanu<sup>2</sup>, Gratiela Tardei<sup>2</sup>, Valentina Simion<sup>1</sup>, Petre Calistru<sup>1</sup>, Emanoil Ceausu<sup>1</sup>, Simona Ruta<sup>3</sup>, Simin Florescu<sup>1</sup>

<sup>1</sup> "Carol Davila" University of Medicine and Pharmacy/ "Dr Victor Babes" Clinical Hospital of Infectious and Tropical Diseases, Bucharest, Romania, <sup>2</sup> "Dr Victor Babes" Clinical Hospital of Infectious and Tropical Diseases, Bucharest, Romania, <sup>3</sup> "Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

**Background:** Neuro-invasive infection with West Nile virus (WNND) is an important cause of morbidity and mortality in South-Eastern Europe. During the last years, an increase in the number of WNND cases and a surge in the mortality rate were reported at the European level.

**Materials/methods:** We analyzed patients hospitalized with WNND in a tertiary infectious diseases hospital from May 2010 to November 2018, in order to identify the prognostic factors associated with the severe evolution of patients.

**Results:** During the study period, a total of 93 cases of WNND were diagnosed, out of which 84.9% during the last 3 years (2016 – 15 cases, 2017 – 23 cases and 2018 – 41 cases). The overall mortality rate was 24.7%, all deaths were recorded during 2016-2018. Most patients died during hospitalization – 21 and one month after discharge other 2 patients. The median age of deceased patients was significantly higher than that of survivors [78 years (IQR 73.0-83.0) vs 64 years (IQR 49.75-75.25),  $p < 0.001$ ]. Deceased patients had clinical forms of meningo-encephalitis (69.6%) or encephalitis (30.4%), and associated several cardio-vascular co-morbidities: ischemic heart disease (82% vs. 31%), arterial hypertension (78% vs. 52%) or congestive heart failure (30% vs. 8%). Clinical signs associated with severe prognosis were coma (91.3% vs. 21.4%), Glasgow coma score ( $9.39 \pm 1.4$  vs.  $13.47 \pm 0.59$ ), change in consciousness (100% vs. 51.4%), obtundation (95.7% vs. 40%) and speech disorders (82.6% vs. 35.7%).

**Conclusions:** WNND is a re-emerging disease, with important associated mortality. Risk factors for severe WNND evolution are age and cardio-vascular co-morbidities; several neurological signs are predictive for an unfavorable evolution.

<b>Variables (93 patients)</b>	<b>Deaths, n=23</b>	<b>Survivors, n=70</b>	<b>P significant &lt;0,05</b>
<b>Age median years (IQR)</b>	78(73.0-83.0)	64(49.75-75.25)	<b>&lt;0.001</b>
<b>Ischemic heart disease (n, %)</b>	19(82%)	22(31%)	<b>&lt;0.001</b>
<b>Hypertension (n, %)</b>	18(78%)	37(52%)	<b>0.029</b>
<b>Congestive heart failure (n, %)</b>	7(30%)	6(8%)	<b>0.0076</b>
<b>Coma (n, %)</b>	21(91.3%)	15(21.4%)	<b>&lt;0.001</b>
<b>Obtundation (n, %)</b>	22(95.7%)	28(40%)	<b>&lt;0.001</b>
<b>Change in consciousness (n, %)</b>	23(100%)	36(51.4%)	<b>&lt;0.001</b>
<b>Speech disorders (n, %)</b>	19(82.6%)	25(35.7%)	<b>&lt;0.001</b>
<b>Confusion (n, %)</b>	22(95.7%)	47(67.1%)	<b>0.007</b>

29<sup>TH</sup> ECCMID  
13-16 APRIL 2019 AMSTERDAM, NETHERLANDS  
POWERED BY M-ANAGE.COM

