

P0215 **Characterization of enterovirus detected from cerebrospinal fluid in Navarra**

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Background: Enteroviruses (EVs) can cause a wide spectrum of clinical manifestations, including serious pathologies (especially genotypes EV-A71 and EV-D68) such as encephalitis, severe acute respiratory illness and flaccid paralysis-like illness. The aim of this study is to investigate the spectrum of EVs in cerebrospinal fluid (CSF) samples in our region.

Materials/methods: The study included 547 CSF samples obtained from January 2014 to August 2017 in Navarra. The samples were analysed by real time PCR for the detection of EV (Cepheid until June 2016 and ProgenieMolecular to the end of the study). EV-positive samples were genotyped by amplification in .

Results: Out of 547 samples, 116 (21.2%) were EV-positive. The incidence (cases/100.000 inhabitants) by year was: 2.8 in 2014, 8.27 in 2015, 3.74 in 2016 and 3.27 in 2017. Among the 116 included patients, 74 were males (63.8%). The median age was 5 years old (range 0-56). Sixteen cases (13.8%) were <6 months, 9 cases (7.8%) were 6 months-1 year, 37 cases (31.9%) were 1-5 years, 25 cases (21.5%) were 6-18 years and 29 (25%) were >18 years old. EVs were more detected in May, June and July with 80 cases in total. Genotypes were successfully determined in 87 cases (75%). The most detected EV specie was B 84/87 (96.6%) followed by specie A 3/87 (3.4%). The identified EVs genotypes were: Echovirus 6, 32 (37,2%); Echovirus 30, 13 (15,1%); Echovirus 18, 9 (10,5%) and Echovirus 9, 9 (10,5%). The most common EV genotype by year was: Echovirus 16 in 2014, Echovirus 6 in 2015, Echovirus 30 in 2016 and Echovirus 18 in 2017. One EV-A71 was detected in 2014. Among all identified EVs, EV-D68 was not detected. Interestingly, 73.8% of EVs detected from respiratory samples in 2016 were EV-D68.

Conclusions: The most common EV specie and genotype detected in CSF in our region is B and Echovirus 6 respectively. Moreover, neurological diseases caused by EVs were more prevalent in summer. More than half of the cases occurred in children ≤ 5 years old. Despite EV-D68 circulated in our region, there was not detected in CSF in the present study.