

O1113 A report of the first UK adult case of Enterovirus D68-associated neurological disease mimicking Guillain-Barré syndrome

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Background: We present the case of a 34 year old male who presented to a London hospital with diplopia and left sided facial numbness on the background of a one week history of fever and upper respiratory symptoms. He was an American citizen who had been living in the UK for 8 years and had travelled to Greece 2 weeks prior.

On examination all observations were within normal limits but he had multiple cranial nerve deficits bilaterally (V, VI, VII, IX and X) requiring naso-gastric feeding. There was associated mild weakness of his proximal left upper limb with loss of his biceps reflex. His Glasgow Coma Score was 15 and he had no signs of meningism.

Materials/methods: All initial blood tests were within normal range. A respiratory viral swab taken on the day of admission was positive for enterovirus and sent for further typing. Lumbar puncture revealed a white cell count of 4, a protein of 0.62 and normal glucose. Initial routine viral testing of CSF was negative but sent for further testing. Brain imaging did not show any abnormalities.

Results: The imported neurological infection panel (Rare and Imported Pathogens Laboratory, Porton Down) was negative for all tested virus including West Nile and Zika viruses. CSF bacterial and fungal culture was also negative. The respiratory enterovirus isolated on typing was the D68 strain.

The patients' clinical condition stabilized and he was transferred to the National Hospital for Neurology and Neurosurgery for further assessment. His neurological deficits persisted, with only minimal improvement, and he was discharged home with further rehabilitation planned in the community.

Conclusions: Since 2014 Enterovirus D68 (EV-D68) has been shown to cause severe respiratory and neurological disease in both children and adults, with outbreaks reported in the USA and Europe. The recognized associated neurological syndrome is acute flaccid myelitis (AFM). This is the first known case of a UK adult with EV-D68 AFM presenting with cranial nerve deficits.

Given the global emergence of this pathogen as a cause of severe neurological disease, enterovirus screening should be considered in anyone presenting with unexplained neurological symptoms.

