

**P1424**

**Paper Poster Session**

**How to diagnose and transmit hepatitis E**

**Autochthonous HEV infection in Vicenza, Italy**

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**Background:** Acute hepatitis E (AHE) is gaining increasing global attention in both developing and developed countries. In many developed countries autochthonous cases are common and related to HEV genotype 3 and 4. In our Department, all patients with acute NA-NC hepatitis, both autochthonous and imported, have been systematically tested for HEV since 1995.

**Material/methods:** We reviewed all cases of acute NA-NC hepatitis tested for HEV in the period 1995-2015. For the locally acquired cases identified we reviewed the clinical and laboratory data. Serological analyses had been carried out by means of an ELISA commercial kit for HEV antibodies (IgM and IgG Abbott, USA until 2004, then Dia.Pro, Italy). Total RNA was extracted by serum and stool samples (QIAamp MinElute Virus Spn - QIAGEN, Germany) and HEV RNA was detected by real-time RT-PCR. HEV genotypes were evaluated by sequencing of a fragment of the ORF-2 gene encoding the constitutive protein of the capsid.

**Results:** 68 cases of NA-NC were tested for HEV during the period 1995-2015, including 39 in the period 1995-2012 and 29 during 2012-2015. 25 patients tested positive at serology (IgM and IgG) and were confirmed by HEV-RNA. 21 were in travelers returning from developing countries (genotype 1 and 4) and 4 were autochthonous. In the period 1995-2012, 20 imported and only one autochthonous case were identified. For the period 2012-2015, one imported and three autochthonous cases were found. The four autochthonous cases are detailed below.

Patient	ALT U/L (peak)	Bil.tot mg/dl (peak)	Possible route of transmission	Virological data	Genotype	Comorbidities	Extra-hepatic symptoms	Outcome
1. M, 31 y.o, caucasian  Immunocompetent  (1995)	4033	10.3	Trader of livestock	IgG +  IgM +  HEV-RNA +	3	no	no	Healed spontaneously

2. M, 56 y.o, caucasian  Immunosuppressed  (2012)	1880	15	Slaughtered a wildboar	IgG +  IgM +  HEV-RNA +  prolonged viremia > 2 months	3 a	Chronic Lymphatic Leukemia under chemotherapy	no	Treated with ribavirin with success
3. M, 43 y.o. caucasian  Immunocompetent  (2015)	3301	7.7	Eated uncooked pork meat  MSM	IgG +  IgM +  HEV-RNA +	3	no	no	Healed spontaneously
4.M, 59 y.o. caucasian  Immunocompetent  (November 2015)	1730	1.5	Hunter. Slaughtered roes?	IgG +  IgM +  HEV-RNA +	3	Hypertension	Neuralgic amyotrophy	Hepatitis in remission, neurologic symptoms still under evaluation

**Conclusions:** HEV genotype 3 is currently circulating in humans in our region. The number of autochthonous cases seems higher over the 3 years. This may be due to a recent increased incidence of cases as recently described in UK<sup>1</sup> and the Netherlands<sup>2</sup>. Clinicians should have a low threshold for testing patients with hepatitis for HEV, especially in the immunosuppressed and patients with neurological symptoms and abnormal liver function tests.

1. Ijaz S et al JID 2014 ;1212-1218. 2. Zaaijer H, Hepatology 2015;62:654