

Hepatitis A outbreak in Italy, 2013: disentangling the role of risk factors associated with the disease

BACKGROUND:

In January-May 2013, the Italian sentinel surveillance (SEIEVA) reported a 70% increase in hepatitis A compared to the same 2010-2012 period. In May 2013, Germany, Poland and The Netherlands reported hepatitis A cases among travellers returning from Northern Italy. We investigated to identify a common exposure.

METHODS:

We defined a case as a patient with onset between January 1st-May 31st 2013 and an IgM anti HAV positive test among Trento, Bolzano, Emilia-Romagna, Friuli-Venezia-Giulia and Apulia residents. We compared each case with four age- and neighbourhood-matched controls to explore potential risk factors. We calculated adjusted odds ratios (AOR) using conditional logistic regression and attributable fraction in the population (PAF).

RESULTS:

The five regions reported to SEIEVA 119 cases (mean age 37.0, 44% female) in the period considered, mainly from Emilia-Romagna (57%) and Trento (26%). The number of cases increased progressively until a peak at the 20th week. Compared with the 419 controls, cases were more likely to eat berries (AOR 4.2; 95% confidence interval [CI], 2.5-7.0; PAF 26%), eat raw seafood (AOR, 3.8; 95% CI, 2.2-6.8; PAF 26%) and travel (AOR, 2.0; 95% CI, 1.2-3.4). Laboratories amplified sub-genotype 1A and genotype KF182323 from 32 cases and berries, identical to the Dutch, German and Polish cases.

CONCLUSIONS:

Clear and effective information exchange between countries allowed early alert and prompted investigations. Epidemiological and laboratory evidence suggested that berries were the source of this outbreak, leading to tracing back and forward. In addition, raw seafood led to a number of cases, as reporting regularly in Italy.