Ongoing outbreak of Hepatitis A Virus in Lazio Region, Italy: results from a prevention program

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28th ECCMID Madrid, Spain 21 – 24 April 2018

Background

Since August 2016 an outbreak of Acute Hepatitis A (AHA) has been spreading across Europe mostly affecting men who have sex with men (MSM). In the same period, an increase of AHA was also registered in Lazio region (Italy), mainly involving young men living in Rome. To face this outbreak, since February 2017 the Lazio Regional Health Authority promoted a prevention program, prioritized for at-risk population aged 18-45, also to assess the emerging risk factors associated with viral hepatitis A spread.

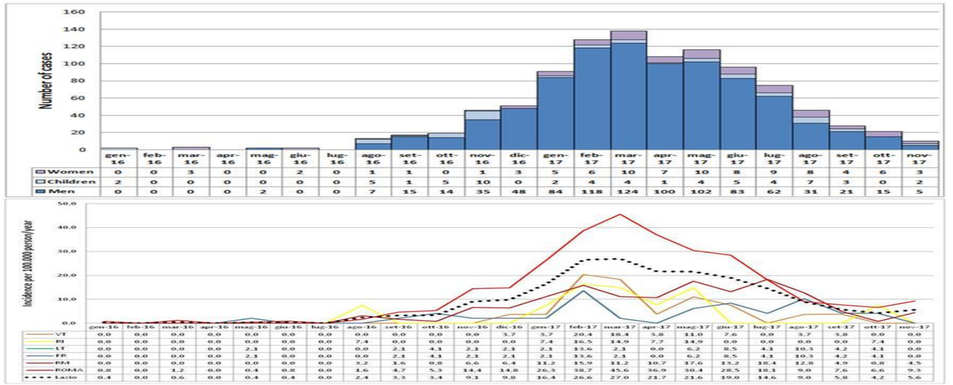
Materials/methods

The program is based on a set of interventions including the serological screening, counseling for viral hepatitis and access to vaccination for patients found susceptible to HAV. Risk factors have been evaluated by univariate logistic regression.

Results

Since August 2016, 1012 subjects developed AHA with a median overall incidence rate of 13.7 cases per 100.000 persons/year representing a 6-fold increase from previous year. Most cases (85.7%) occurred in young men with a male to female ratio of 9.9. Between 1 February and 30 November 2017, 882 subjects were included in the program. Mean age was 33 years (range 18-45), with 85% male. A positive serology for HAV was found in 120 (13.6%) and 12 (1.3%) were IgM positive. MSM represented 74,2%, with positive HAV serology in 13.7%. Univariate analysis did not found any evidence that potential risk factors (including recreational drug use, food and sex behaviors) was significantly related to positive HAV serology, except for country of birth other than Italy (OR 5.04, IC 95% 2.8-8.8; p=0.000). An unexpected low prevalence of immunity was found in all age group with no evidence of log-linear between age and serology (p=0.099).

Figure: Hepatitis A cases by months and gender - Incidence HAV by months per 100.00 persons/year



Conclusions

Our study underlines that HAV prevalence in Italy is significantly lower than expected. In particular any association between previous infection and potential risk factors was not found. The study suggests that most people reach adulthood without contact with HAV, thus, as other country with low endemicity, Italy is exposed to potential explosive HAV epidemic in special group at risk. According to WHO enhanced surveillance to lead tailored intervention are needed to prevent the occurrence of HAV epidemic in Italy.

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