

Session: P039 Viral hepatitis

**Category: 1b. Viral hepatitis (incl antiviral drugs, treatment & susceptibility/resistance, diagnostics & epidemiology)**

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### **The prevalence of hepatitis C virus infection and its related risk factors among HCV chronic carriers in southern Italy**

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**Background:** Hepatitis C virus (HCV) infection is a major public health problem worldwide. An estimated 170 million persons have been infected with HCV globally and persistent HCV infection is a leading cause of serious liver disease, including cirrhosis and hepatocellular carcinoma (HCC), especially in HCV endemic areas, like Southern Italy. The aim of this study was to determine the prevalence of anti-HCV antibodies and the viremic rate in Southern Italy in three different periods 2006-2008, 2009-2011 and 2012-2014 and the association between these changes and risk factors.

**Material/methods:** We retrospectively studied 16275 sera collected between 2006 and 2008, 21108 from 2009 to 2011 and 25672 in the period ranging between 2012-14. Anti-HCV was performed using a chemiluminescence assay (Ortho Vitros) and all the positive samples were confirmed using a Third generation RIBA assay. Only seropositive samples were tested by Polymerase Chain Reaction in order to evaluate HCV RNA viremia. Pearson chi-square test and t-test were used to statistically analyze the results.

**Results:** The prevalence of anti-HCV showed a decrease from 2006-2008 (8.0%) to 2012-2014 (6.4%) with an increase of the viraemic rate (54,0% in 2006-2008 vs 61,4% in 2012-14). The analysis of the main risk factors associated showed a significant change among the three periods studied. Dental therapy that was the predominant risk factor before 2012 (40,7%) showed a significant decrease (24,9% in 2012-14,  $p < 0.05$ ), whereas infections related to surgery and intravenous drug use increased (11,8% and 6,3% respectively in 2009-11 to 36,9% and 9,0% in 2012-14,  $p < 0.001$ ).

**Conclusions:** Anti-HCV prevalence in the Southern Italy population showed a decrease from 2006 to 2014, with a significant change in the main transmission routes.