

POSTER PRESENTATION

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Prevalence of type 2 diabetes mellitus and its predictive factors in Italy: a comparison between HIV-infected and uninfected subjects

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Purpose of the study

We determined the prevalence of type-2 diabetes mellitus (DM) in HIV infected (HIV+) and uninfected (HIV-) subjects.

Methods

Cross-sectional analysis on HIV+ patients (pts), aged >18 years [median(IQR): 46(41-51)], who attended the Infectious Diseases Department of the San Raffaele Scientific Institute, alive or lost or dead after 2007 and HIV- subjects, healthy workers, aged >18 years [median (IQR): 47(40-53)], evaluated between 2007-2008, all over Italy (15 Italian regions), in a campaign for the assessment of cardiovascular risk factors, promoted by the Occupational Medicine of the H San Raffaele Resnati. Logistic regression used to determine the risk of DM; odds ratios(OR) and its 95% confidence intervals reported.

Results

4249 HIV+ (3248 males) and 9148 HIV- (7052 males) individuals. HIV+ pts had a higher prevalence of DM than HIV- [N=172 (4.1%) vs N=225 (2.5%), $p<0.0001$; OR=1.68 (1.37-2.05)]. Prevalence of DM was still higher among HIV+ than HIV- after controlling for body mass index (BMI) [<25 : 3.2% vs 1.1%; 25-29.9: 2.9% vs 3.1%; ≥ 30 : 12.7% vs 7.8%; OR=1.79(1.29-2.50)], age [≤ 50 years old (yrs): 1.7% vs 1.2%; >50 yrs: 10.8% vs 4.9%; OR=2.02(1.65-2.49)] or gender [Females: 2.7% vs 1.1%;

Males: 4.5% vs 2.9%; OR=1.69(1.38-2.06)] or both factors [Females ≤ 50 yrs: 0.9% vs 0.8%; Females >50 yrs: 11.1% vs 1.8%; Males ≤ 50 yrs: 2.0% vs 1.3%; Males >50 yrs: 10.8% vs 5.6%; OR=2.02(1.64-2.48)].

Among subjects with DM, HIV+ pts were significantly different compared to HIV- as follows: were older ($p<0.0001$), had a lower BMI($p<0.0001$), lower cholesterol($p<0.0001$), lower HDL-cholesterol($p<0.0001$), lower fasting glucose($p<0.0001$) and higher triglycerides ($p=0.019$). HIV+ and HIV- pts with DM were similar with respect to LDL-cholesterol, systolic and diastolic pressure and smoking status. After adjustment for age (≤ 50 yrs, >50 yrs), gender, BMI (<25 , 25-29.9, ≥ 30), cholesterol, HDL- and LDL-cholesterol, triglycerides and hypertension (yes vs no), HIV+ pts had a higher risk of diabetes (OR=1.71(1.02-2.86), $p=0.043$). Increasing age [>50 yrs vs ≤ 50 yrs: OR=4.10(3.01-5.59), $p<0.0001$] or BMI [25-29.9 vs <25 : OR=1.87(1.28-2.74); ≥ 30 vs <25 : OR=4.67(3.08-7.10); overall effect: $p<0.0001$] were also predictive factors of a greater risk of DM.

Conclusions

Our findings suggest an increased prevalence of type-2 diabetes in HIV+ than HIV- subjects which was almost doubled in HIV+ than HIV- and up to 4-fold higher among obese subjects or those aged >50 years.

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