

Diabetes and atypical presentations of patients hospitalized for an acute myocardial infarction in Puerto Rico

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Conflictos de interés: Los autores declaran no tener conflictos de interés alguno.

Abstract

Introduction: Diabetes mellitus is one of the fastest growing health issues concerning the world today with an estimated 382 million individuals affected as of 2013 and a projected increase in number to 592 million by 2035. Diabetes mellitus is a condition affecting 12-15% of the population or around 400,000 people in Puerto Rico. The most common presenting complaint of diabetics who are hospitalized for an acute myocardial infarction (AMI) is chest pain. However, the pervasiveness of atypical symptoms in diabetic patients is yet unclear. The aim of this study is to determine if there is an association between diabetes and the presentation of atypical symptoms in the emergency room in those suffering from an AMI in Puerto Rico. **Methods:** We conducted a secondary data analysis of data from participants from the 2007, 2009 and 2011 Puerto Rico Cardiovascular Disease Surveillance system (PRCDS), an observational, non-concurrent, cross-sectional study. The main independent variable was presence of diabetes mellitus (Type I and Type II). The outcome was the presence of atypical symptoms at the time of presentation, defined as the absence of chest pain on admission. The prevalence of atypical symptoms in diabetic patients and non-diabetic patients was compared. Binary logistic regression was used to test for independent association. Statistical significance was considered for p -values ≤ 0.05 for a two-tailed test. Analysis was conducted using SPSS software. **Results:** We found no association between atypical presentation of an AMI and diabetes, before or after adjustment for age, gender, congestive heart failure, stroke history and BMI. (unadjusted OR= 1.0, 95%CI=0.7-1.4 and adjusted OR=1.0, 95% CI=0.6-1.5). Other independent associations identified were that patients older than 75 were 3.5 times more likely to present atypically than people younger than 55 (OR= 3.5, 95% CI=1.6-7.6), and those with CHF and stroke were more likely to present with atypical symptoms (OR=3.2, 95% CI=1.7-6.1 and OR=4.2 95% CI=2.1-8.4, respectively). Lastly, overweight patients were 3.3 times more likely to present atypically than healthy weight patients (OR=2.0, 95% CI=0.6-7.0). **Conclusion:** We found no evidence of an association between diabetes and the presentation of atypical symptoms in patients hospitalized for AMI in Puerto Rico.

Keywords: diabetes; acute myocardial infarction symptoms; acute myocardial infarction; Puerto Rico

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