

CORONARY ARTERY DISEASE PREVENTION & THERAPY UPDATE

Socioeconomic Crisis and Incidence of Acute Myocardial Infarction in Messinia, Greece

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ABSTRACT

In the last 5 years Greece is facing the worst socioeconomic crisis since the end of the Second World War. The purpose of the current study was to gather all the incident cases of acute myocardial infarction (AMI) that were hospitalized in the General Hospital of Kalamata during the last 10 years. Our results suggest that the prolonged financial crisis may have led to a higher incidence of AMI in the population of Messinia, Greece.

OBJECTIVES

Financial crisis has been linked to cardiovascular morbidity and mortality.^{1,2} An association between the dramatic socio-economic crisis and increased cardiac mortality was shown in Argentina in the beginning of the 2000's.³ In light of the major financial crisis taking place in Greece since 2008, we sought to investigate the impact of this crisis on the incidence of AMI.

METHODS

We searched and analyzed the database of the General Hospital of Kalamata, Greece for incident cases of AMI. We evaluated the potential association between the financial crisis period (January 2008 to December 2012) and incident AMI, with the pre-crisis period (January 2003 to December 2007) as the referent. The two periods were defined according to the change in Gross Domestic Product (GDP). 2008 was the first year that there was a negative growth rate of the GDP (data from the Hellenic Statistical Authority), a trend that has been going on for the last 5 years. We used the 2011 Census for the population of the Messinia prefecture. We collected data on demographic characteristics, and morbidity due to AMI. Analyses were performed with Stata 12.0 (StataCorp, Texas, USA).

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ABBREVIATION

AMI = acute myocardial infarction

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RESULTS

In total, there were 1,909 men (74.7%) and 645 women (25.3%) who suffered an AMI during the 10-year period (mean age±SD: 68.2±13.8 years). During the crisis period, the incidence of AMI was higher compared to the pre-crisis period (n=1,508 vs. n=1,046, respectively; relative increase 44.2%, p≤0.001) (Figures 1, 2). Incident cases of AMI dur-

ing the crisis period increased by 40.1% in men (n=795 vs. n=1,114, p≤0.001) and by 57.0% in women (n=251 vs n=394, p≤0.001), relatively to the pre-crisis period. By age, incident cases of AMI increased by 29.7% for those aged ≤45 years (n=64 vs n=83, p=0.1), and by 41.0% for those aged >45 years (n=944 vs. 1,363, p≤0.001). Between insured and uninsured patients, incident cases of AMI increased by 42.0% for those with insurance (n=980 vs. n=1,392), and by 75.8% for indigent and/ or uninsured patients (n=66 vs. 116).

CONCLUSIONS

Our findings suggest that the financial crisis may have led to a higher incidence of AMI in the population of Messinia.⁶ Dupre et al have recently presented data from a large cohort in the USA which suggest that job loss raises the risk for AMI, and that risk accumulates with repeated exposure.⁴ The HELIOS study conducted in Greece 7 years ago was the last national survey that provided insights into the epidemiology, clinical characteristics, management and outcome of patients with AMI in the Greek population.⁵ There is an urgent need to conduct a new national study to evaluate the possible impact of the financial crisis on the incidence of AMI for the entire Greek population.

DISCLOSURES

The authors have nothing to disclose.

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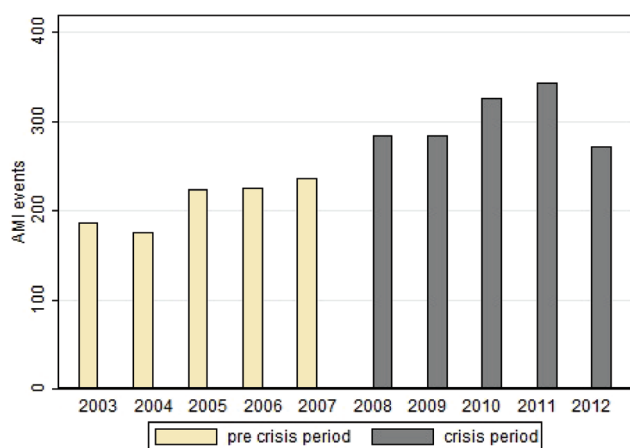


FIGURE 1. Year variation of incident acute myocardial infarction (AMI) events (n=2,554) in Messinia, Southwestern Greece, during the crisis period (January 2008 to December 2012) as compared to the pre-crisis period (January 2003 to December 2007).

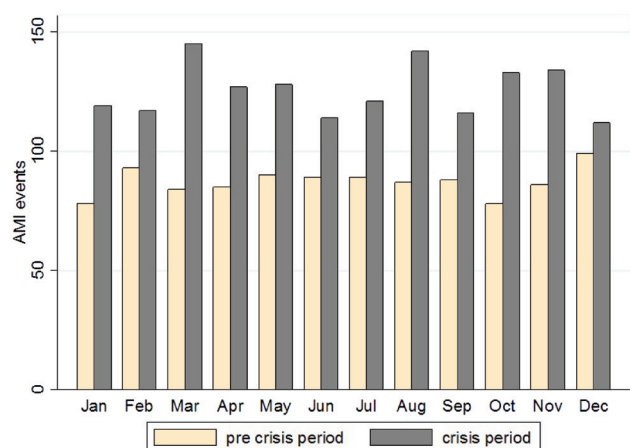


FIGURE 2. Monthly variation of incident acute myocardial infarction (AMI) events (n=2,554) in Messinia, Southwestern Greece, during the crisis period (January 2008 to December 2012) as compared to the pre-crisis period (January 2003 to December 2007).