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Acute Coronary Syndromes

HURRICANE KATRINA AND MYOCARDIAL INFARCTION INCIDENCE: SEVEN YEARS AFTER THE STORM

Poster Contributions

Hall C

Saturday, March 29, 2014, 3:45 p.m.-4:30 p.m.

Session Title: Acute Coronary Syndromes: Comorbid Considerations

Abstract Category: 1. Acute Coronary Syndromes: Clinical

Presentation Number: 1152-259

Authors: *Matthew N. Peters, Kevin Deandrade, Henry Quevedo Diaz, Burchett R. Andrew, Sumit Tiwari, Kanwar Singh, Thomas A. Turnage, Edmond N. Fomunung, Holly Gonzales, Sudesh Srivastav, Patrice Delafontaine, Anand Irimpen, Tulane University Health Sciences Center, New Orleans, LA, USA, Southeast Louisiana Veterans Health Care System, New Orleans, LA, USA*

Background: We have compared the incidence of acute myocardial infarction (AMI) before and after Hurricane Katrina along with contributing factors.

Methods: This is a single-center, retrospective study conducted at Tulane University Health Sciences Center involving patients admitted for AMI in the two years before Hurricane Katrina and in the seven years afterward. Using pre-specified demographic and clinical data, we compared the pre-Katrina and post-Katrina cohorts.

Results: In the 7-year post-Katrina period, there were 1378 admissions for AMI out of a total census of 61633 patients (2.24%) compared to 150 admissions out of a census of 21,079 (0.7%) in the 2-year pre-Katrina group ($p < 0.0001$). The post-Katrina group had a higher prevalence of known coronary artery disease (48.7% vs. 30.7%, $p < 0.005$), prior coronary artery bypass grafts (15.9% vs. 9.3%, $p < 0.05$), hyperlipidemia (55.0% vs. 45.4%, $p < 0.05$), smoking (50.9% vs. 39.3% $p < 0.05$), substance abuse (14.5% vs. 6.7%, $p < 0.05$) and psychiatric comorbidities (12.3% vs. 6.7%, $p < 0.05$). The post-Katrina group was also more likely to have had been prescribed aspirin (47.9% vs. 31.3%, $p < 0.005$), beta blockers (46.9% vs. 34.0%, $p < 0.05$), ACE inhibitors or angiotensin receptor blockers (50.3% vs. 36.0%, $p < 0.05$) and statins (48.0% vs. 28.0%, $p < 0.001$), was more likely to be unemployed (18.1% vs. 2.0%, $p < 0.0001$), uninsured (12.3% vs. 6.0%, $p < 0.05$) and to be residents of New Orleans (88.3% vs. 70.0%, $p < 0.0001$). No significant differences between the two groups were noticed in terms of age, sex, ethnicity or hypertension.

Conclusion: Hurricane Katrina placed a tremendous impact on the physical, emotional and psychological wellbeing of New Orleans residents. The three fold increase in incidence of AMI in the community has persisted despite improved adherence to standard of care and guidelines. These findings highlight the importance of devising strategies to improve long term cardiovascular health of a community after a natural disaster, particularly in view of the recent spate of global natural disasters.