



IMAGING AND DIAGNOSTIC TESTING

DOES EXERCISE FITNESS ATTENUATE THE OBESITY PARADOX?

ACC Poster Contributions

Ernest N. Morial Convention Center, Hall F

Monday, April 04, 2011, 3:30 p.m.-4:45 p.m.

Session Title: Nuclear Cardiology/PET: Miscellaneous

Abstract Category: 39. Nuclear Cardiology/PET

Session-Poster Board Number: 1131-174

Authors: Seth Uretsky, Azhar Supariwala, Supraja R. Yeturi, Gargi Thotakura, Pranitha Mantrala, Niriksha Sathyaranayana, Salim Memon, Deepa B. Iyer, Sirisha Kanneganti, Alan Rozanski, St. Luke's and Roosevelt Hospitals, New York, NY

Background: The obesity paradox, a decrease in mortality among obese patients, has been shown to exist even among patients without CAD and a normal exercise SPECT. Whether exercise fitness attenuates the obesity paradox is unknown.

Methods: 2,770 (56 ± 12 , 40% male) patients without CAD and a normal exercise SPECT were studied. Normal weight was defined as BMI 18.5-24.9 kg/m²; overweight 25-29.9 kg/m², obese >30 kg/m². Baseline clinical risk factors and exercise data were recorded for each patient. Exercise capacity was divided into high (≥ 6 METs) and low (<6 METs) fitness. The end point of the study was all-cause mortality.

Results: 625 (23%) of patients were normal weight, 1,044 (37%) were overweight and 1,101 (40%) were obese. There were 199 deaths over a mean follow-up of 8 ± 4 yrs. Event rate was lower in obese patients compared to normal (0.5 vs. 2.3%/yr, $p < 0.0001$) and overweight patients (0.5 vs. 1.1%/yr, $p = 0.04$). Adjusted multivariate analysis showed that higher fitness was a predictor of favorable prognosis. When comparing BMI groups according to fitness level, BMI was a more powerful predictor than fitness for all cause mortality, with obese high fit patients having improved survival (HR=0.5 CI 0.4-0.8) than normal weight patients. The adjusted K-M survival curve is shown (Figure).

Conclusions: In patients without CAD and a normal exercise SPECT, overweight and obese patients had a lower likelihood of all-cause mortality regardless of exercise fitness. Fitness level did not attenuate the obesity paradox.

