



BODY FAT AND MORTALITY IN PATIENTS WITH CORONARY HEART DISEASE: THE “OBESITY PARADOX” IS ALL IN THE FAT

ACC Poster Contributions

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Background Although obesity is a risk factor for coronary heart disease (CHD), in cohorts of CHD, an “obesity paradox” exists where patients with obesity have a better prognosis than leaner patients. We have demonstrated this obesity paradox using body mass index and percent body fat (BF), but only limited data is available on prognosis in CHD patients with various BF classifications.

Methods We evaluated 581 consecutive patients with stable CHD and divided patients based on Gallagher BF categories into Underweight (n=12), Normal BF (n=189), Overweight (n=214), and Obese (n=166). Total mortality was assessed by the National Death Index during a 3-year follow-up.

Results Mortality based on Gallagher BF was U-shaped, being highest in the underweight (25%; $p < 0.0001$ compared to all other groups) and lowest in the overweight group (2.3%). Intermediate mortality was demonstrated in the Normal BF (6.4%; $p = 0.02$ compared with the Overweight) and obese (3.6%) subgroups (Figure). In multiple logistic regression analysis, high BF was an independent predictor of lower overall mortality (OR 0.89; CI 0.82-0.95) and lower Gallagher class an independent predictor of higher mortality (OR 0.46; CI 0.25-0.84.)

Conclusions Based on Gallagher BF, an obesity paradox exists, with highest mortality noted in the Underweight and Normal BF categories, and the lowest mortality in those classified as Overweight. Greater emphasis is needed directed at percent BF to help understand this puzzling obesity paradox.

