PRE-MORBID BODY MASS INDEX, HIGH SENSITIVITY TROTONIN-T AND MORTALITY AFTER INCIDENT HEART FAILURE HOSPITALIZATION: THE Atherosclerosis Risk in Communities (ARIC)

Methods: Stratifying 1279 incident HF patients in ARIC by their preHF (≥6 months) cTnT levels (below and above the level of detection, 5 ng/L), we examined the association of preHF body mass index (BMI) with mortality after incident HF hospitalization.

Results: Mean age at HF was 74 years (53% women, 27% black). Mean time to HF after cTnT measurement was 8.2 years. Mortality after incident HF was 7.1 and 9.8 per 100 person years in cTnT<5 and cTnT≥5 ng/L, respectively (Figure). The OP was more evident in those with cTnT≥5 ng/L [adjusted HR (95%CI) for death =0.54 (0.38-0.77) in overweight, 0.42 (0.29-0.60) in obese compared to normal weight; p trend across BMI categories 0.015] than in the cTnT<5 ng/L group [0.95 (0.59-1.54) in overweight and 0.79 (0.48-1.30) in obese; p trend 0.597].

Conclusion: Individuals with detectable cTnT prior to incident HF hospitalization had increased mortality rate but even in this group, obesity was associated with lower mortality suggesting that lower levels of subclinical injury do not explain the OP.