**THE OBESITY PARADOX DECODED: BMI AFFECTS CO-MORBIDITIES BUT NOT OUTCOMES IN ISCHEMIC STROKE**

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*Background*: We investigated an association between the following variables and their effect on mortality: CAD, PVD, HTN, dyslipidemia, evidence of atherosclerosis by echocardiography, end stage renal disease [ESRD], diabetes, and BMI.

*Materials and Methods*: We performed retrospective chart review in 996 consecutive patients treated for ischemic stroke at a single tertiary medical center. Patients were divided according to BMI groups according to the National Institute of Health. This study was approved by the institutional IRB.

*Results*: Despite the similar prevalence of morbid obesity in both sexes (52% female, 48% males), there were significantly more females with BMI <25 (63.2% with 0-18.5 and 58.4% with 18.5-24.9 kg/m2, p<0.05), and more males with BMI>25 (60.82% with 25-30 and 59.2% with 30-35 kg/m2, p<0.05). CAD was associated with normal (HR 10.4, CI 1.3-82.3, p=0.03) or increased weight (HR 7.92, CI 1.0-62.5, p=0.049); ESRD was less likely in overweight patients (HR 0.11, CI .014-0.775, p=0.03), and diabetes correlated with morbid obesity (HR 11.3, CI 2.2-58.4, p=0.004). When adjusted for comorbidities, PVD (HR 3.5, CI 1.6-7.9, p=0.002), ESRD (HR 3.6, CI 1.5-8.5, p=0.005), evidence of atherosclerosis by echocardiography (HR 1.64, CI 1.1-2.5, p=0.02), but not BMI, were associated with increased mortality.

*Conclusion*: In patients with ischemic stroke, BMI appears to be a marker for specific comorbidities, but does not independently portend improved or worsened prognosis.