The objective of this study was to examine the effect of body mass index (BMI) on 12-year mortality among older Mexican Americans aged 75 years and older. Data are from wave 5 (N=1,367) of the Hispanic Established Population for the Epidemiologic Study of the Elderly (2004/2005-2016). Measures included socio-demographics, self-reported medical conditions, body mass index (BMI), disability, Mini-Mental-State-Examination (MMSE), short physical performance battery (SPPB), high depressive symptoms, and falls. BMI was classified as underweight (< 18.5), normal weight (18.5 to < 25), overweight (25 to < 30), obesity type I (30 to <35), and morbid obesity (≥ 35).Cox proportional hazards regression analysis was performed to estimate the hazard ratio of 12-year mortality as a function of BMI categories at baseline. The average of the sample was 81.2 years, 17.2% were underweight, 22.7% were normal weight, 27.4% were overweight, 31.9% were obesity type I, and 38.6% were morbid obesity. Mexican Americans aged ≥75 years with overweight or obesity Type I had a reduced hazard ratio (HR) of death (HR=0.80, 95% CI=0.68-0.93 and HR=0.73, 95% CI=0.60-0.88, respectively) over 12-years of follow-up. The HR of death for underweight and morbid obesity participants was 1.78 (95% CI=1.13-2.80) and 1.03 (95% CI=0.79-1.36), respectively. Female participants and those with high scores in the MMSE and SPPB had decreased risk of death. This study confirmed the protective effect of overweight and obesity on mortality seen in this population at a younger age, which might have implications when treating older adults with overweight and obesity.

DIET QUALITY AND BIOLOGICAL RISK IN A NATIONAL SAMPLE OF OLDER AMERICANS

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Biomarkers are sensitive to current health status and capture aspects of health that may precede the development of disease and other health problems. Using comprehensive measures of biological risk, this study aims to investigate the relationship between intake of individual dietary components, overall diet quality, and biological dysregulation. For the analysis, we used nutrition and biomarker data from 3,641 older adults (over age 50) in the Health and Retirement Study. Eleven out of 13 individual dietary components were associated with lower biological risk. After controlling for SES, health behaviors, and access to health care, a high intake of fruits, greens and beans, whole grains, seafood and plant proteins, and fatty acids and a low intake of sodium and saturated fat were still associated with lower biological risk. Respondents with poor/suboptimal quality diet had higher biological risk than those with good quality diet. After controlling for SES, health behaviors, and access to health care, respondents with poor/suboptimal quality diet continued to exhibit higher biological risk than those with good quality diet, though the differences in biological risk were reduced. Findings from this study emphasize the importance of healthy eating in improving health of older adults. Encouraging intake of fruits, greens and beans, whole grains, seafood and plant proteins, and fatty acids, while limiting consumption of sodium and saturated fat would improve overall diet quality and contribute to the prevention of chronic diseases and morbidity.

DIETARY ADMINISTRATION OF 2-DEOXY-D-GLUCOSE REDUCES HIGH FAT DIET INDUCED OBESITY AND META-INFLAMMATION IN MICE

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Obesity is a major risk factor for type 2 diabetes, NAFLD, chronic diseases and cancer. Insulin resistance, oxidative stress, high ectopic lipid levels and meta-inflammation are the mechanisms proposed to play a leading role in the morbidity associated with obesity. Energy restriction mimetics (ERMAs) has also been shown earlier to reduce the scale and the severity of these disorders by mimicking the physiological effects of the Energy Restriction. In present study we propose that the use of 2-DG as ERMA can be effective in regulating the High Fat Diet (HFD) induced obesity. Effect of 2-DG (0.4% w/v in drinking water) on the HFD and Insulin Resistance (IR). HFD induced change in body weight, adipose tissue mass, and ectopic lipid levels was assessed as the measure of obesity.IR and glucose levels were also estimated to evaluate the effect of 2-DG on the insulin sensitivity in HFD mice. 2-DG significantly altered HFD induced increase in the mice body weight, epididymal White Adipose Tissue (WAT) and liver weight. 2-DG fed mice also showed reduced lipid levels in serum and liver. Furthermore, 2-DG also reduced the oxidative damage in the liver with concomitant increase in enzymatic (SOD and Catalase) and non-enzymatic (reduced Glutathione) antioxidant levels. 2-DG fed mice also showed reduced levels of Leptin, IL-6 and TGF-β which are early drivers of the etiology of the metabolic diseases. Our results suggest that 2-DG as ERMA can prevent obesity and etiology of associated disorders. However, more relevant models are needed to further strengthen these observation

EARLY-LIFE STRESS, DEPRESSIVE SYMPTOMS, AND INFLAMMATION: THE ROLE OF SOCIAL FACTORS

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Early-life stress (ELS) is associated with elevated risk of adverse psychological (e.g., depression) and physical health outcomes (chronic diseases driven by inflammation) in older adulthood. We evaluated whether four social factors buffered the ELS-depressive symptoms and ELS-inflammation associations. Data were from 3,416 adults (58.28% female; Mage=68.41; SDage=10.24) who participated in the 2006 wave of the Health and Retirement Study, a nationally representative sample of older adults in the United States. We