

interventions to prevent worsening opioid abuse prevalence are expected to improve patient outcomes.

3110

The association between components of the Life's Simple Seven and incident end stage renal disease in the Southern Community Cohort Study

Mindy Pike¹, Cassianne Robinson-Cohen, Jennifer Morse, Thomas G. Stewart, William J. Blot, T. Alp Ikizler and Loren Lipworth¹
¹Vanderbilt University Medical Center

OBJECTIVES/SPECIFIC AIMS: The Life's Simple 7 (LS7) metric was created by the American Heart Association with the goal of educating the public on seven modifiable factors that contribute to heart health. While it is well documented that these ideal health behaviors lower risk of cardiovascular disease (CVD) in the general population, the association between the LS7 ideal health metrics and end stage renal disease (ESRD) risk has not been examined in a lower socioeconomic population at high risk for both ESRD and CVD. Our objective is to examine the association between the LS7 score and incident ESRD in a cohort of white and black men and women in the southeastern US, where rates of CVD and ESRD are high. **METHODS/STUDY POPULATION:** The Southern Community Cohort Study recruited ~86,000 low-income blacks and whites in the southeastern US (2002-2009). Utilizing a nested case-control design, our analysis included 1628 incident cases of ESRD identified via linkage of the cohort with the United States Renal Data System (USRDS) from January 1, 2002 to March 31, 2015. Controls (n = 4884) were individually matched 3:1 with ESRD cases based on age, sex, and race. Demographic, medical, and lifestyle information were obtained via baseline questionnaire. The AHA definitions for ideal health were used for non-smoking (never or quit >12 months), body mass index (BMI<25kg/m²) and physical activity (>75 min/week of vigorous physical activity or >150min/week of moderate/vigorous activity). Modified definitions were used for consuming a healthy diet [Healthy Eating Index (HEI10) score>70] and for blood pressure, fasting plasma glucose, and total cholesterol, based on self-reported no history of diagnosis of hypertension, diabetes, and hypercholesterolemia, respectively. The number of ideal health parameters were summed to generate the LS7 score, which ranged from 0-7 with higher scores indicating more ideal health. Adjusted odds ratios (95% confidence intervals) for incident ESRD associated with LS7 score were calculated using conditional logistic regression models, adjusting for income and education. The SCCS ESRD case-cohort dataset will be available by TS 2019 and analyses will be completed to adjust for baseline estimated glomerular filtration rate (eGFR) as a marker of kidney function and to examine whether eGFR modifies the relationship between LS7 and incident ESRD. **RESULTS/ANTICIPATED RESULTS:** At baseline, mean age was 54 years, 55% (3600) of participants were women, and 87% (5656) were black. A total of 58% (943) of ESRD cases were non-smokers compared to 54% (2633) of controls. ESRD cases had higher prevalence of BMI>25 kg/m² (81% vs. 74%), hypertension (84% vs. 59%), hypercholesterolemia (48% vs. 34%), and diabetes (66% vs. 22%) compared to controls. A total of 18% (839) of controls and 12% (194) of ESRD cases met ideal exercise recommendations, and 20% of either cases (302) or controls (916) had a HEI10 score above 70. The median LS7 score for controls and ESRD cases was 3 and 2, respectively, and 17% (983) of participants had a low score (0-1) while 2% (105) met 6 or 7 ideal health metrics. Higher LS7 score was associated with lower odds of ESRD (P-trend<0.001). Participants

with LS7 score >3 (above median) had 75% reduced odds of ESRD (OR 0.25; 95% CI 0.22, 0.29) compared to those with a score of 2 or less. **DISCUSSION/SIGNIFICANCE OF IMPACT:** In the SCCS population, the presence of any 3 or more ideal health behaviors is associated with reduced odds of developing ESRD. The components of the LS7 represent important modifiable risk factors that may be targets for future interventions driven by the patient. The attributable risk due to each factor is needed to dissect which ideal behaviors are the most beneficial.

3244

The Autonomic Nervous System as a Potential Therapeutic Target in Huntington Disease

Jordan L Schultz¹, Lyndsay Harshman¹, John Kamholz¹ and Peggy Nopoulos¹
¹University Of Iowa

OBJECTIVES/SPECIFIC AIMS: This study (1) investigated the presence and severity of autonomic nervous system (ANS) dysfunction in patients with pre-symptomatic Huntington Disease (HD) and (2) determined if pharmacologic manipulation of the ANS could modify the progression of HD. **METHODS/STUDY POPULATION:** Using a unique data set of children at-risk for HD (the Kids-HD study), markers of autonomic function (resting heart rate [rHR], blood pressure [BP], and core body temperature [CBT]) were compared between pre-symptomatic, gene-expanded children (psGE) and healthy developing children using mixed models analyses controlling for sex, age, and body mass index. Included participants had to be < 18 years old and be at least 10 years from their predicted motor diagnosis of HD. Using the Enroll-HD database, inverse-propensity score weighted, Cox Regression analyses investigated the effects of beta-blockers on the timing of motor diagnosis of presymptomatic, adult patients with HD. **RESULTS/ANTICIPATED RESULTS:** Compared to healthy controls, the psGE participants had significantly (p<0.05) higher mean rHR, systolic BP percentile, and CBT compared to the healthy controls (elevated by 4.01 bpm 0.19°C, and 5.96 percentile points, respectively, in the psGE group). Participants from Enroll-HD who were using a beta-blocker prior to motor diagnosis (n=65) demonstrated a significantly lower annualized risk of motor diagnosis [HR=0.56, p=0.03], compared to other participants with HD (n=1972). **DISCUSSION/SIGNIFICANCE OF IMPACT:** Sympathetic nervous system activity is elevated in patients with HD decades prior to their predicted motor diagnosis. Furthermore, modulation of the sympathetic nervous system with beta-blockers significantly lowers the annualized risk of motor diagnosis of HD.

3529

The main effects of threat appraisal on the well-being of African Americans living with HIV/AIDS in the Washington, D.C. metropolitan area, and the role of religious social support as a buffer

Agnes Meave Otieno¹
 Henry M. Jackson Foundation for the Advancement of Military Medicine

OBJECTIVES/SPECIFIC AIMS: This study considered how threat appraisal and religious social support associate with subjective well-being and subjective experience of pain. Appraisal in this study refers to the individual's perception and interpretation of the