sets. Finally, the standardized canonical coefficients, which are analogous to regression coefficients, evaluate the magnitude of variate relationships and determine which subscales best describe significant canonical dimensions. RESULTS/ANTICIPATED RESULTS: Prior to the canonical correlation analysis, total score descriptive statistics and subscale score zero-order correlations were carried out. The CAPS-5 total score was 33.24 (SD = 9.39) and the TFI total score was 50.81 (SD = 21.88) in this sample. Interpretation of the zero-order correlations indicated that TFI Relaxation subscale was the only tinnitus-related subscale moderately associated with a PTSD subscale (i.e., Reexperiencing, $r = .35$). Canonical correlation omnibus model fit analysis via the Wilks Lambda overall multivariate test indicated that the tinnitus variable set was significantly associated with the PTSD variable set, $F = 1.55$, $p = .04$. Evaluation of the canonical correlations indicated that one dimension was significant in explaining the relationship between the two variable sets and accounted for 25% of the overall variance, $F = 1.55$, $p < .04$, $R^2 = .249$. Standardized canonical coefficients indicated that the PTSD subscales Reexperiencing ($b = 0.64$) and Negative Alterations in Cognition and Mood ($b = 0.55$) were the most representative of the identified canonical dimension. In terms of the TFI, the Relaxation ($b = 1.28$) and Sleep ($b = 0.72$) subscales appeared to be most related to the canonical dimension. The TFI subscales Auditory Difficulty ($b = -0.30$) and Quality of Life ($b = 0.30$) also appeared to be related the canonical dimension to a lesser degree. DISCUSSION/SIGNIFICANCE OF IMPACT: Findings support prior research suggesting particularly deleterious functional outcomes among individuals with comorbid tinnitus and PTSD. Results of this study suggest a latent variable that can explain the unique experience of individuals with both disorders. This latent variable consists of two PTSD constructs: Reexperiencing traumatic events (i.e., flashbacks, nightmares, intrusive memories), and Negative Alterations in Cognition and Mood (i.e., self- and other-blame, strong negative feelings, loss of interest, feeling distant). This latent variable also consists of two tinnitus-related constructs: Sleep (i.e., trouble falling and staying asleep, peaceful sleep) and Relaxation (i.e., ability to relax, enjoyment of peace and quiet). Auditory Difficulty (i.e., hear clearly, understand people) and Quality of Life (i.e., social activities, relationships, difficulty performing tasks) also contributed to the latent variable, but to a lesser degree. It is suggested that the constellation of symptoms related to the latent variable is a Dysphoric Factor, unique to individuals with PTSD, tinnitus, and posttraumatic headache. It may be necessary to incorporate different techniques into existing evidence-based treatments for both tinnitus and PTSD, for optimal symptom improvement.

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The Role of Immortal Time Bias When Linking Treatment to Outcomes among Older Patients with Incident Hodgkin Lymphoma (HL) using Surveillance, Epidemiology and End Results (SEER)-Medicare Data

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OBJECTIVES/GOALS: Older patients with HL have worse outcomes than younger patients, which may reflect treatment selection, including fewer chemotherapy cycles. Immortal time bias exists when patients must survival to initiation, and even completion, of treatment. We described treatment length and death to evaluate the extent of immortal time bias. METHODS/STUDY POPULATION: This retrospective cohort study utilized SEER-Medicare data from 1999-2014. Patients diagnosed with incident advanced stage HL at age ≥65 years and enrolled in Medicare Part A and B fee for service were included. Chemotherapy or radiotherapy treatment initiated within 4 months of diagnosis was determined from inpatient, outpatient, and physician/supplier claims. No treatment was defined by lack of treatment claims. Dates from claims were used to define length of treatment; ≥4 months of treatment indicated complete chemotherapy cycles. Date of death was obtained from Medicare data. Analyses were limited to 1 year post-diagnosis. Summary statistics were used to describe treatment length and subsequent death. RESULTS/ANTICIPATED RESULTS: We included 1492 advanced stage HL patients with a mean age of 76 years (SD = 7). 428 (29%) patients had no documented treatment; 397 (27%) were treated <4 months indicating fewer chemotherapy cycles; and 667 (45%) were treated for ≥4 months indicating complete chemotherapy cycles. Among those with no documented treatment, 15% died within 1 month of diagnosis with 78% dying by 1 year post-diagnosis. Among those treated <4 months, 36% died within 1 month of their last treatment claim with 64% dying by 1 year post-diagnosis. Among those treated ≥4 months, 7% died within 1 month of their last treatment claim with 14% dying by 1 year post-diagnosis. DISCUSSION/SIGNIFICANCE OF IMPACT: Few untreated patients died within 1 month of diagnosis. One-third of patients treated <4 months died soon after completion of treatment, while patients treated longer survived longer, suggesting some patients did not survive to complete treatment. To account for this immortal time bias, landmark analysis will be used to assess the relationship between treatment and survival.

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THE ROLE OF PERIODONTAL DISEASE IN CORONARY ARTERY DISEASE IN A HISPANIC POPULATION

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OBJECTIVES/GOALS: The purpose of this report is to describe the role of Periodontal Disease (PD) in Coronary Artery Disease (CAD) in a Hispanic country. METHODS/STUDY POPULATION: Literature and Puerto Rican experience was reviewed and will be discussed. RESULTS/ANTICIPATED RESULTS: PD produces inflammatory disease by bacterial infection in the gingiva. This factor PD activates an inflammatory process affecting the CAD cascade inducing myocites, endothelial cells activation and cytokines. The incidence of gingival disease in the Puerto Rican population (P) is around 50%; of this group 80% will develop periodontal disease. Including this factor and diabetes mellitus Type 2, still the incidence of CAD is 20-30% less than the U.S.A. DISCUSSION/SIGNIFICANCE OF IMPACT : CAD is a systemic disease related to genetic factors and inflammation. PD is related to an inflammatory process, which will activate the CAD process, producing tissue infarcts. The daily use of resolving or liquid Omega 3 in the gingival tissue is useful in the prevention of gingival and periodontal disease. CONFLICT OF INTEREST DESCRIPTION: All authors have no relationship with any industry or financial associations in connection with the submitted abstract.

https://doi.org/10.1017/cts.2020.151 Published online by Cambridge University Press