SESSION 2345 (POSTER)

CANCER

ASSESSING RISK FOR ENDOMETRIAL CANCER AMONG HISPANIC FEMALES AGE 50 YEARS AND OLDER

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Endometrial cancer is the most common gynecological cancer in the US, with most women diagnosed between 55 and 64 years old. Seventy-five percent of women with endometrial cancer are postmenopausal, and the most common symptom is postmenopausal bleeding. Only a few studies have addressed the lack of knowledge and awareness of risk factors and/or health care utilization for early signs and symptoms of endometrial cancer. The objective of this study was to evaluate health care utilization among Hispanic women aged ≥50 years who are at risk for endometrial cancer. This retrospective cohort study used a combination of diagnosis and procedure codes from UTMB's electronic health records to identify Texas Hispanic females who had a health encounter at ≥50 years of age between 2012 and 2016. Risk factors included conditions/treatments affecting hormone levels, age, body mass index, diabetes, gravidity, parity, family history of endometrial or colorectal cancer, previous diagnosis of breast or ovarian cancer or endometrial hyperplasia, smoking or alcohol use, and treatment with radiation therapy in the pelvis area. Multivariate logistic regression models evaluated for predictors of endometrial cancer. The study included 11,563 Hispanic females aged ≥50 years (median age=57). Most women were overweight. Currently, we identified 705 Hispanic females (6.1%) with possible endometrial cancer with validation underway. Females who have a history of vaginal spotting/bleeding, pelvic bleeding, and pelvic pain are at higher risk for endometrial cancer. It is important for physicians to educate patients on recognizing the signs and symptoms of endometrial cancer.

CANCER PREVALENCE AND THE ROLE OF MULTIMORBIDITY AMONG OLDER ADULTS: USING NHANES 2011-2016

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Cancer risk increases as age, understanding the potential risk factors of cancer is essential for cancer prevention. Biological and epidemiologic studies suggest relationships between individual chronic conditions and increased cancer risk. However, limited researches have analyzed the association between multimorbidity (simultaneous presentation of two or more chronic diseases) and cancer. The current study is aimed to evaluate whether having multimorbidity is associated with increased all-site and site-specific cancer prevalence among older adults. Data of 5,200 older adults aged 55 years and older who participated in the 2011-2016 National Health and Nutrition Examination Survey (NHANES) were included in the study. Single and multiple logistic regression models were used to evaluate the associations between multimorbidity and cancer. 3,623 (70%) individuals in our study were identified as having multimorbidity and 992 (19%) individuals were diagnosed with cancer. After adjusting for demographic covariates and smoking status, having multimorbidity was significantly associated with having all-site cancer (AOR: 1.57; 95% CI: 1.25 – 1.98) and lung cancer (AOR: 8.91; 95% CI: 1.51 - 52.73). Multimorbidity was associated with increased odds of having cancers among older adults. Our findings add to the evidence suggesting the potential relationships between multimorbidity and cancer. Future longitudinal studies are needed to examine the biological mechanisms and temporality of the association. If the association between multimorbidity and cancer is affirmed, it could have substantial implications in public health, as management of multiple chronic conditions could also advantage cancer prevention among older adults.

LONG-LIVED INDIVIDUALS PRESENTING WITH LARGE BREAST AND COLON TUMORS HAVE A LOWER RISK OF CONCURRENT METASTASIS

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We hypothesized large tumors (stage T3 or T4) are less likely to metastasize in centenarians compared to younger patients. We analyzed 2004 to 2015 Surveillance, Epidemiology, and End Results (SEER) data for the most common cancer types (breast, colon, lung, and prostate) among patients with T3 or T4 tumors and compared rates of M1 (presence of metastases) at time of diagnosis according to ages 30-110 years. Among 44,066 breast cancer patients, metastasis rates fell after age 80 for T3 and after age 74 for T4 tumors. The relative risk of metastasis [RR] for T3 patients ages 90-110 years compared to ages 50-89 years was 0.73, 95% CI 0.57;0.94, and the RR for T4 patients was 0.48, 95% CI 0.42;0.55. Among 296,041 colon cancer patients, metastasis rates for T3 and T4 tumors steadily declined after age 60; RR for T3 patients was 0.66, 95% CI 0.62;0.71 and for T4 was 0.73, 95% CI 0.69;0.78 for the older and younger age groups. No difference in metastasis rates at diagnosis was observed for ages 90-110 with small cell and non-small cell lung cancers. Among 52,738 men presenting with stage T3 prostate cancer, the rate of metastasis steadily increased after age 70 (RR = 6.00, 95% CI 4.72;7.63) while there was no substantial difference in metastasis rate according to age for T4 patients. More work is needed to determine whether these findings are related to differences in screening and

detection among those at older ages or whether they have a greater resilience to metastasis.

GERIATRIC ASSESSMENT BEFORE HEMATOPOIETIC STEM CELL TRANSPLANT IDENTIFIES DEFICITS ACROSS ALL AGES

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Allogeneic hematopoietic stem cell transplant (HCT) is a lifesaving procedure; however, it is associated with significant morbidity, and treatment-related mortality ranges from 10-30%. Morbidity and mortality have been associated with poor functional status. The geriatric assessment (GA) may allow identification of deficits pre-HCT, allowing intervention and improvement. While focused on older adults, we hypothesize that GA may also identify deficits in younger patients who may be debilitated by chemotherapy or cancer before HCT. We performed a GA in all adult patients at the time of initial evaluation for HCT (between 10/1/17-1/31/19) and again immediately before HCT. Deficits were identified and patients referred to specialists (physical therapy, neuropsychology, etc.) prior to HCT. Among 83 patients, the median age was 58 years (age range: 19-75), 59 (71%) had ≥1 deficits, including 41 (49%) had ≥2 deficits that required referral. The most common deficit was physical function (45, 54%), followed by cognitive function (29, 35%), nutrition (26, 31%), and mental health (7, 8%). Deficits were common across all age groups: 9/16 (56%) 60 years old. To date, 40 patients have undergone HCT; of the 24 with deficits at initial evaluation, 10 (42%) improved at least one deficit, 5 (21%) were unchanged, and 9 (38%) not evaluated. Physical and nutrition deficits were most responsive to intervention. These results suggest that there is a high degree of impairment prior to HCT among both older and younger patients; however, these deficits are amenable to improvement prior to HCT.

COMBINED EFFECT OF CMV SEROPOSITIVITY AND SYSTEMIC INFLAMMATION ON DEMENTIA PREVALENCE IN CANCER SURVIVORS

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Though cancer patients treated with multi-modal therapies demonstrate higher levels of systemic inflammation, which is associated with dementia, cancer survivors have not shown a consistent association with dementia. Since several studies reported an independent association between cytomegalovirus (CMV) infection, inflammation and dementia in non-cancer populations, we have evaluated whether CMV infection and systemic inflammation were associated with increased prevalence of dementia in cancer survivors in Health and Retirement Study (HRS). We evaluated prevalence of dementia (using score ≤7 on the 27-point scale) among 1607 cancer survivors, in whom we measured CMV seropositivity and two biomarkers of systemic inflammation: C-reactive protein (CRP) and neutrophil-lymphocyte ratio (NLR). The prevalence of CMV seropositivity was 68.26% (n=1097), while prevalence of increased systemic inflammation [CRP >5mg/L and NLR >4] was 4.23% (n=68). Using survey logistic regression, adjusted for age, race, gender, BMI (Body Mass Index) and sampling design, cancer survivors who were both CMV seropositive and had increased systemic inflammation had the highest odds of dementia compared to those who were CMV seronegative and had low levels of systemic inflammation (OR=6.59; 95% CI [2.81, 15.44]; p<.0001). Cancer survivors who were CMV seropositive without evidence of systemic inflammation had a lower but increased odds of dementia (OR=2.02; 95% CI [1.17, 3.47]; p=0.01). Odds of dementia among those who were CMV seronegative with elevated systemic inflammation was not significant (p=0.09). Our study demonstrates a possible role for ongoing CMV induced inflammation in determining dementia prevalence among cancer survivors that needs further confirmation.

CHARACTERIZING CONCURRENT ALZHEIMER'S DISEASE AND CANCER IN U.S. ADULTS OVER 65

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Cancer (CA) care delivery fragmentation persists for patients across the cancer continuum. Racial and ethnic disparities are one of the primary factors attributable for variation in treatment outcomes, in addition to language and patient-provider communication barriers. Latino and African-American communities also bear a greater burden of Alzheimer's Disease (AD) risk than White making patients experiencing AD+CA at risk for poor quality and treatment disparities. This study aims to characterize AD+CA in a population-based sample. Using 2004-2013 SEER-Medicare data we identified multiple cancers and the prevalence of concurrent AD+CA in the database (N=273,349). Patients selected for a first primary, histologically confirmed, any stage, not diagnosed in death certificate or autopsy and had at least 24 months of data prior to diagnosis to calculate a comorbidity index. All analyses were conducted in SAS 9.4 (Cary, N.C.). Across lung (LC), colorectal, head and neck (HNC), prostate (PC), and cervical cancer (CC) we found 5890 cases of AD+CA or 2.15%. While lung represented the largest sample, colorectal (CRC) cancer was responsible for the largest proportion of concurrent AD+CA cases at 3.52% of all CRC. Black and Latino CRC, HNC patients had higher than overall prevalence of AD+CC. Black CRC patients had 6.13% AD+CA vs White 3.27 and Latino HNC patients reported 5.06% vs 3.25 White. Earlier stage patients had higher AD+CA vs later stages for CRC, HNC, and CC. The opposite was true for LC. Finally, women