

**SO-2 Pancreatic cancer in HIV versus non-HIV population: Analysis of demographics, outcomes and healthcare utilization from a national sample**

S. Sherazi, M. Tariq, S. Gupta

*John H Stroger Jr Hospital of Cook County, Chicago, United States*

**Background:** Pancreatic cancer (PC) is a highly fatal cancer with a dismal 5-year overall survival. With the advent of combined antiretroviral therapy, the lifespan of HIV patients has substantially improved and the incidence of non-AIDS-defining cancer is rising. PC remains rare in HIV and there is very little data about outcomes of PC in HIV versus non-HIV patients. We attempted to evaluate characteristics and outcomes, including healthcare utilization (HU), in patients with HIV-PC compared to non-HIV-PC using a national sample.

**Methods:** United States Healthcare Cost and Utilization Project's National Inpatient Sample (HCUP-NIS) (>7 million discharges/year) was queried to identify HIV and non-HIV-PC admissions between 2016-2018. We studied socio-demographic differences, medical comorbidities, mortality, length of stay (LOS), total hospital charges (THC). Secondary outcomes included sepsis, septic shock, neutropenia, anemia and malnutrition. Statistics were performed using the t-test, univariate and multinomial logistic regression.

**Results:** A total of 775 HIV-PC admissions and 317,415 non-HIV-PC admissions were identified, HIV-PC comprised 0.24% of all PC admissions. HIV-PC patients were significantly younger (mean age 59.9 vs 68.1,  $p<0.001$ ) compared to non-HIV-PC. Proportion of patients over 65 years old was only 29.7% in HIV-PC group compared to 63.3% in non-HIV-PC group. HIV-PC patients were more likely to be men (71% vs 52%,  $p<0.0001$ ), Black (52% vs 14%,  $p<0.0001$ ), and less likely Caucasian (34% vs 71%,  $p<0.0001$ ) compared to non-HIV-PC. HIV-PC were more likely to be treated at an urban teaching hospital (84.5% vs 76%,  $p=0.047$ ) compared to non-HIV-PC but there was no difference in treating hospital bed size or zip-codes divided by income levels where patients hailed from. HIV-PC patients were less likely to be on private insurance and more likely to be on governmental sponsored insurance ( $p<0.001$ ). The groups had similar rates of medical comorbidities including diabetes, CAD, COPD, heart failure, obesity and smoking. The HIV-PC group had significantly higher rates of chronic kidney disease (19% vs 12%,  $p=0.012$ ) and dialysis (4.5% vs 0.86%,  $p<0.001$ ) while non-HIV-PC showed higher rates of dyslipidemia (36% vs 25%,  $p=0.01$ ) and hypertension (48% vs 39%,  $p=0.045$ ). HIV-PC patients were also more likely to be malnourished (42% vs 34%,  $p=0.04$ ) compared to non-HIV group. Rates of anemia, neutropenia, thrombocytopenia and sepsis were similar between groups.

The mean LOS was higher in HIV-PC group (7.5 vs 6.1 days,  $p=0.001$ ), THC were higher in HIV-PC group (\$80,141 vs \$66,361,  $p=0.02$ ) but both differences were not significant when adjusted for patient and hospital demographics. A total 9% HIV-PC and 7.6% non-HIV-PC group died during hospitalization. While crude mortality was non-significant between groups, adjusted OR for mortality (aOR) was 0.43 (95%CI 0.24-0.76,  $p=0.004$ ) when adjusted for patient demographics, hospital demographics and medical comorbidities.

**Conclusions:** Pancreatic cancer occurred at a significantly younger age in HIV-PC patients compared to non-HIV-PC patients. Racial disparity followed the same trend as general HIV-infection. Adjusted mortality was lower in HIV-PC while most medical comorbidities, secondary outcomes and adjusted healthcare utilization was not significantly different between HIV and non-HIV groups with PC. HIV-positive status does not add significantly to the medical burden in patients with pancreatic cancer.

**Legal entity responsible for the study:** The authors.

**Funding:** Has not received any funding.

**Disclosure:** All authors have declared no conflicts of interest.

<https://doi.org/10.1016/j.annonc.2021.05.026>