

Abstract

Background:

Non-AIDS-defining Cancers are increasing in incidence and mortality in the HIV-positive population. Pancreatic cancer (PC) is projected to be the second cause of cancer-related death by 2030. No literature exists on patients with PC and concomitant human immunodeficiency virus (HIV) infection in South Africa, which has the highest number of HIV-positive people in the world.

Objectives:

To compare the demographics, stage, histological grade of disease, and survival outcomes of HIV-positive compared to HIV-negative patients diagnosed with PC.

Methods:

Patient records with PC were collected from Chris Hani Baragwanath Academic Hospital (CHBAH) and the Wits Donald Gordon Medical Centre (DGMCM) from the 1st of January 2013 to the 31st of December 2018. A total of 240 patients' records were obtained. Demographic, clinical, and survival data were collected.

Results:

There were predominantly black Africans (64.6%) and males (54.6%) in the study. Although overall survival between the HIV-positive and negative patients did not differ ($p=0.051$), the median time of survival from presentation was significantly shorter in the HIV-positive compared to the HIV-negative patients (2.1 months; IQR 1.2-6.0 vs. 4.7 months; IQR 1.6-13.0; $p=0.017$). The HIV-positive cohort presented at a significantly younger age compared to the negative cohort (54.6; ± 9.6 vs 62.4; ± 11.1 ; $p=0.0001$) and at a more advanced stage of disease (72.2% vs. 43.1%; $p=0.017$). No difference was found between the histological grade of PC in both cohorts ($p=0.298$). The median survival time for HIV-positive patients on therapy at presentation was significantly longer compared to patients who were not (3.0; IQR 1.3-7.8 vs 1.1 months; IQR 0.9-1.9; $p=0.037$). Overall survival in patients who underwent PD at Wits DGMCM was shown to be higher compared CHBAH (41.7% vs. 12.5%; $p=0.049$). The

majority of the patients presented with regionally advanced (30.6%) and metastatic disease (50.3%).

Conclusion:

This is the first study in South Africa to provide insight into the clinical disease profile and survival outcomes of HIV-positive patients diagnosed with PC. This study has shown that HIV-infected patients with PC have a specific disease profile. Therefore, testing for HIV infection should be included in the management of all patients with PC, a higher index of suspicion for cancer should be maintained in younger HIV-positive patients; and initiation of ART must be timeous.