AIDS-DEFINING NEOPLASM PREVALENCE IN A COHORT OF HIV-INFECTED PATIENTS, BEFORE AND AFTER HIGHLY ACTIVE ANTIRETROVIRAL THERAPY

Angel M. Mayor, MD; María A. Gómez, PhD; Eddy Ríos-Olivares, PhD; Robert F. Hunter-Mellado, MD

INTRODUCTION

Malignant disorders have been associated with clinical AIDS since the onset of the HIV epidemic. Kaposi sarcoma and high-grade non-Hodgkin lymphoma (NHL) were included in the first list of AIDS-defining conditions in 1987.¹ Six years later, invasive cervical cancer was included as an additional AIDS diagnostic criterion.² AIDS-defining neoplasms are considered an additional manifestation of the disrupted immune system. The introduction of highly active antiretroviral therapy (HAART) in 1996 increased the life expectancy among persons infected with HIV in large part because of an improvement in the immune status of patients and a lowering of the HIV viral load. In Puerto Rico, HAART was routinely given to patients as of 1998, with the same combinations of protease inhibitors, nucleoside reverse transcriptase inhibitors, and nonnucleoside reverse transcriptase inhibitors reported to be highly effective in HIV/AIDS patients. These combinations of drugs partially restore defects in cell-mediated immunity, suppress the HIV viral load, and improve the patient’s immunologic and clinical status.³,⁴ As a consequence, AIDS-defining illnesses, including Kaposi sarcoma and high-grade NHL, declined considerably after the introduction of these drugs.⁴,⁷ The pathogenesis of invasive cervical carcinoma appears to be more related to papilloma virus infection, and HAART will not decrease its incidence.⁸ Eltom et al found a significant decline in the AIDS-related NHL in the general US population between 1996 and 1998, which was mainly attributed to decreased immunologic suppression of HIV/AIDS patients after the implementation of HAART.⁹ On the other hand, with the improvement in survival, other co-morbid conditions have played a greater role in the morbidity and mortality of HIV-positive patients. Non-AIDS-defining neoplasms are co-morbid conditions that increase the morbidity, change the therapeutic index, and worsen the mortality profile of patients with HIV infection.⁵,¹⁰–¹⁴

The prevalence of cancer in men in Puerto Rico for the year 2000 was 300 per 100,000; the highest prevalence was seen in prostate cancer (100 per 100,000), followed by colorectal cancer (40 per 100,000). The cancer prevalence in women was 250 per 100,000, principally related to breast cancer (85 per 10,000) and followed by colorectal cancer (30 per 100,000). The principal causes of cancer deaths were prostate cancer (30 per 100,000) and lung cancer (20 per 100,000) in men and breast cancer (18 per 100,000) and colorectal cancer (11 per 100,000) in women.¹⁵ In this article, we measure and evaluate the prevalence of malignant disorders, including AIDS-related and non-AIDS-related neoplasms in a cohort of HIV-infected persons before and after HAART came into widespread use in Puerto Rico.

METHODS

The sample was composed of 171 patients, selected from 3576 adult HIV-