



POSTER PRESENTATION

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HIV-related morbidity rate, thirteen years after the introduction of highly active antiretroviral therapy (1996-2009)

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Background

After the availability of combined antiretroviral therapy (cART), we quantified the consequences on the general morbidity rates, and HIV-related hospitalization rates, in the period 1992-2008.

Methods

HIV-associated hospitalizations were assessed according to three different periods of time: before cART introduction (1992-1995), immediately after first cART availability (1996-1998), and the last one, referred to the fully established cART era (1999-2008).

Results

During the three examined periods, an undetectable viremia was never detected in any patient in the pre-cART era, in 21% of cases in the first years of cART, and in 41% of patients in the last years of cART ($p < .0001$). In parallel, the mean CD4⁺ T-lymphocyte count in the three study groups tested 27.2 ± 11.3 cells/ μ L, 39.3 ± 14.6 cells/ μ L, and 89.6 ± 38.2 cells/ μ L, respectively ($p < .001$). During time, an increased frequency of hospitalization of heterosexual and female patients occurred, while the frequent of IVDA had a significant drop (from 69% in the pre-cART period, to 57% during initial cART era, to 39% at the time of consolidated cART era; $p < .0001$). The patients with a prior diagnosis of full-blown AIDS represented 86%, 57%, and 33%, respectively ($p < .0001$), while hospitalized inpatients who experienced a diagnosis of AIDS concurrently with the first detection of HIV infection (the so-called "AIDS presenters"), showed an evident temporal increase (11%, 21%, and 39%, respectively;

$p < .0001$). Among concurrent illnesses, a huge rise of chronic liver diseases was registered from the pre-cART time (18%), to the first years of cART availability (29%), to the current time of advanced cART (48%) ($p < .001$), while an increased mortality due to hematological and solid malignancies also occurred, although at a lesser extent (8.2%, 11.7%, and 17.8% respectively; $p < .001$).

Discussion

The introduction of cART profoundly acted on the general morbidity for HIV infection and AIDS, although the epidemiological-clinical-laboratory scenario significantly changed over time. These modifications need a careful monitoring, in order to ensure a timely diagnostic and clinical disease recognition by all involved health caregivers who face HIV-infected patients, and to plan an adequate allocation of available resources, funding, structures, and dedicated personnel.

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