

HIV patients in Intensive Care Units

The Human Immunodeficiency Virus (HIV)/Acquired Immunodeficiency Syndrome (AIDS) is a global public health problem, with about 36.7 million infected people in 160 different countries by the end of 2015⁽¹⁾. In Brazil, 842,710 cases — according to the Ministry of Health — from 1980 to June 2016⁽²⁾.

Since its adoption in 1996, the concept of the Combined Antiretroviral Therapy (cART), also known as Highly Active Antiretroviral Therapy (HAART), changed the natural history of the infection: it improved prognosis and decreased mortality, leading therefore to the chronicity of the disease⁽³⁾.

In this new HIV/AIDS setting, observing the changes in the mortality profile and the causes of hospitalization and admission to Intensive Care Units (ICUs) allowed better clinical management. A reduction in deaths related to opportunistic infections, associated with an increase in deaths due to other causes not traditionally related to HIV, were also observed^(4,5).

That tendency is demonstrated by a cohort study of critically ill HIV patients. It showed concomitant decrease of respiratory failure and *Pneumocystis jiroveci* pneumonia⁽⁶⁾, while others studies registered the increased prevalence of bacterial infections in HIV infected patients, regardless the use of cART⁽⁷⁻⁹⁾. Therefore, as expected, sepsis is a diagnosis that has become an increasingly common cause of intensive care^(6,10), as well as an important determinant of short- and medium-term mortality⁽¹¹⁾.

HIV patients now have life similar expectancy to that of the non-HIV population⁽¹²⁾. Other authors state that, although mortality has improved, people living with HIV have a shorter period of healthy life when compared to the non-HIV population⁽¹³⁾. However, the growing improvement in the management of this infection can help reduce stigma, facilitating both early diagnosis and the immediate and universal cART⁽¹⁴⁾.

In this context, the systematic review presented in this issue, authored by Dr. Hugo Boechat Andrade et al., corroborates those findings. This paper demonstrates that short-term prognostic factors, for HIV patients admitted to the ICU, are not directly related to HIV.

Studies of this nature are crucial, once that the awareness that HIV infection is assuming characteristics of a chronic disease, amenable to clinical and laboratory control, is important. The concept that HIV patients tend to behave like the general population must reach all medical specialties, in particular those who work in ICUs. Traditionally, HIV infected patients have lower chances of being accepted in ICUs when compared to patients with other diseases — such as cancer and severe liver disease, despite the greater mortality of these conditions⁽¹⁵⁾.

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REFERENCES

1. UNAIDS. Global AIDS Update. 2016. Available from: <<http://www.unaids.org/en/resources/documents/2016/Global-AIDS-update-2016>>. Access on: may. 2017.
2. Ministry of Health. Secretary of Health Surveillance. STD, AIDS and Viral Hepatitis. Epidemic Update – HIV AIDS. 2016;(1).
3. Dore GJ, Li Y, McDonald A, Ree H, Kaldor JM, Kaldor JM, et al. Impact of highly active antiretroviral therapy on single AIDS-defining illness in Australia incidence and survival. *J Acquir Immune Defic Syndr*. 1999. 2002;29(4):388-95.
4. Pacheco AG, Tuboi SH, May SB, Moreira LF, Ramadas L, Nunes EP, et al. Temporal changes in causes of death among HIV-infected Patients in the HAART was in Rio de Janeiro, Brazil. *J Acquir Immune Defic Syndr*. 1999. 2009;51(5):624-30.
5. Grinsztejn B, Luz PM, Pacheco AG, Santos DV, Velasque L, Moreira RI, et al. Changing profile mortality among HIV-infected Patients in Rio de Janeiro, Brazil: shifting from AIDS related to non-AIDS conditions in the HAART era. *PloS One*. 2013;8(4):e59768.
6. Huang L, Quartin A, Jones D, Havlir DV. Intensive Care of Patients with HIV infection. *N Engl J Med*. 2006;355(2):173-81.
7. Rosen MJ, Narasimhan M. Critical Care of Patients immunocompromised: human immunodeficiency virus. *Crit Care Med*. 2006;34(9 Suppl.):S245-50.
8. Davaro RE, Thirumalai A. Life-threatening complications of HIV infection. *Intens Care Med J*. 2007;22(2):73-81.
9. Grinsztejn B, Veloso VG, Friedman RK, Moreira IR, Light MW, Fields DP, et al. Early mortality and causes of deaths in Patients using HAART in the United States and Brazil. *AIDS Lond Engl*. 2009;23(16):2107-14.
10. Casalino E, Wolff M, Ravaud P, Choquet C, Bruneel F, Regnier B. Impact advent of HAART on admission patterns and survival in HIV-infected Patients admitted to an intensive care unit. *AIDS Lond Engl*. 2004;18(10):1429-33.
11. Japiassú AM, Amâncio RT, Mosque EC, Medeiros MD, Bernal HB, Nunes EP, et al. Sepsis is a major determinant of outcome in critically ill HIV/AIDS patients. *Crit Care Lond Engl*. 2010;14(4):R152.
12. Samji H, Cescon A, Hogg RS, Modur SP, Althoff KN, Buchacz K, et al. Closing the Gap: Increases in Life Expectancy among Treated HIV-Positive Individuals in the United States and Canada. *Okulicz JF, editor. PLoS One*. 2013;8(12):e81355.
13. Hogg RS, Eyawo O, Collins AB, Zhang W, Jabbari S, Hull MW, et al. Health-adjusted life expectancy in HIV-positive and HIV-negative men and women in British Columbia, Canada: a population-based observational cohort study. *Lancet HIV*. 2017;4(6):e270-6.
14. Trickey A, May MT, Vehreschild JJ, Obel N, Gill MJ, Crane HM, et al. Survival of Patients HIV-positive starting antiretroviral therapy between 1996 and 2013: Collaborative analysis of cohort studies. *Lancet HIV*. 2017. Available from: <<http://linkinghub.elsevier.com/retrieve/pii/S2352301817300668>>. Access on: 28 May 2017.
15. Mrus JM, Braun U, Yi MS, Linde-Zwirble WT, Johnston JA. Impact of HIV/AIDS on care and outcomes of severe sepsis. *Crit Care Lond Engl*. 2005;9(6):R623-30.