Best Belgian Papers on HIV Contest

28 Papers

- 9 Basic Science
- 16 Clinical Science
- 3 Social Science
“IMPACT OF A DECADE OF SUCCESSFUL ANTIRETROVIRAL THERAPY INITIATED AT HIV-1 SEROCONVERSION ON BLOOD AND RECTAL RESERVOIRS”


Abstract Persistent reservoirs remain the major obstacles to achieve an HIV-1 cure. Prolonged antiretroviral therapy (ART) is known to induce virus suppression in infected individuals. Here, we examined DNA integration and viral load in long-lived latently infected cells in blood and tissue of early-treated seroconverters, namely patients who started ART soon after diagnosis of acute HIV-1 infection, and late-treated seroconverters, namely patients who started ART years later. The latter had experienced a low viral load in a long period of time for the last 10 years. We measured the total and integrated HIV-1 DNA levels compared with later treatment initiation, but not reaching the low levels found in LTNPs. Total HIV-1 DNA in rectal biopsies did not differ between cohorts. Importantly, lower viral transcription (HIV-1 unspliced RNA) and enhanced immune preservation (CD4/CD8), reminiscent of LTNPs, were found in early compared to late-treated patients. This suggests that ART could reduce the viral load in LTNPs that could enhance their cure potential.

Introduction A reservoir of long-lived latently HIV-1 infected cells is established early in the course of the infection. It persists despite suppressed viremia in patients undergoing effective antiretroviral therapy (ART) and fuels viral rebound upon treatment discontinuation (Wong et al., 1997; Finzi et al., 1997; Chun et al., 1997; Finzi et al., 1999; Artz et al., 2005; Alexaki et al., 2008). Not only is this reservoir present in the central nervous system, lymphoid organs, the gut and potentially the central nervous system (Chun et al., 2008; Sturdevant et al., 2015; Bednar et al., 2015). The mechanisms underlying HIV-1 persistence in LTNPs is not been fully elucidated. Although an initial decay of these reservoirs has been suggested for ART treatment, it is assumed that replenishment may occur through clonal proliferation of infected CD4 T cells during ART (Chomont et al., 2009; Josefsson et al., 2013; Maldarelli et al., 2014; Murray et al., 2014) or through residual virus production despite suppression (Cao et al., 2004, 2010; Buzon et al., 2013a; Hatano et al., 2013b).
HIGH-RISK HUMAN PAPILLOMAVIRUS GENOTYPES DISTRIBUTION IN A COHORT OF HIV-POSITIVE WOMEN LIVING IN EUROPE: EPIDEMIOLOGICAL IMPLICATION FOR VACCINATION AGAINST HUMAN PAPILLOMAVIRUS.”


Introduction
Persistent infection with 13 human papillomavirus (HPV) genotypes called at high risk (HR) induces invasive cervical cancer (ICC) [1]. Worldwide HPV genotype 16 and 18 represents 70% of the HR-HPV found in cervical cancer in the general population; however, HR-HPV distribution may vary according to cytology and screening modalities of the population.

BREACH SYMPOSIUM
November 25th, 2016
La Géode, Charleroi
Good continuum of HIV care in Belgium despite weaknesses in retention and linkage to care among migrants

D. Van Beckhoven1,2, Florence E, Ruelle3, J Deblonde, C Verhofstede4, Janssens M5, Uittertay6, Lacor7, R. Demeester8,9, A. Callens, and for the BREACH (Belgian Research on AIDS and HIV Consortium)


Abstract

Background: The Belgian HIV epidemic is largely concentrated among men who have sex with men and Sub-Saharan Africans. We studied the continuum of HIV care of those diagnosed with HIV living in Belgium and its associated factors.

Methods: Data on new HIV diagnoses 2007–2010 and on HIV-infected patients in care in 2010–2011 were analysed. Proportions were estimated for each stage in retention in the HIV care continuum and factors associated with attrition at each stage were studied.

Results: Of all HIV diagnosed patients living in Belgium in 2011, an estimated 98.2 % were linked to HIV care, 90.8 % were retained in care, 83.3 % received antiretroviral therapy and 69.5 % had an undetectable viral load (<50 copies/ml). After adjustment for sex, age at diagnosis, nationality and mode of transmission, we found lower entry into care in non-Belgians and after preoperative HIV diagnoses; lower retention in non-Belgians and injecting drug users; higher rates of treatment interruption and non-retention among migrants; lower viral suppression among non-Belgians; and lower viral suppression; Sub-Saharan Africans on ART had slightly less viral suppression.

Conclusions: The continuum of care of HIV-infected patients in Belgium is diverse. The undiagnosed HIV-infected population, although not precisely estimated, but probably close to 20 % based on available survey and surveillance results, could be the weakest stage of the continuum of HIV care. Its identification is a priority along with improving the HIV care continuum of migrants.

Keywords: HIV, Cascade, Continuum of care, Migrants, Belgium

5th BREACH SYMPOSIUM November 25th, 2016 La Géode, Charleroi