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Highlights in HIV, 2016

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ABSTRACT

Research in HIV-infection continues to grow every year. Reports published in journals or presented at conferences in 2016-2017 have brought light to some issues that had been highly debated. We have selected three conceptual publications, which we find include important information for clinicians taking care of HIV-infected patients.

Key words: HIV, antiretroviral treatment, guidelines

Lo más destacado en VIH, 2016

RESUMEN

La investigación en infección por VIH continúa creciendo cada año. Los artículos publicados en revistas o presentados en conferencias en 2016-2017 han traído luz a algunos aspectos importantes de la enfermedad muy debatidos. Hemos seleccionado tres publicaciones conceptuales, que creemos incluyen información importante para los médicos que cuidan de pacientes infectados por VIH

Palabras clave: VIH, tratamiento antirretroviral, recomendaciones

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Research in HIV-infection continues to grow every year. Despite the enormous progress in different fields of the disease, there are still gaps in the knowledge of given areas relevant for the adequate management of patients. Reports published in journals or presented at conferences in 2016-2017 have not been an exception, as they have brought light to some issues that had been highly debated.

We have selected three publications, which we find include important information for clinicians taking care of HIV-infected patients. No question, other papers equally deserve being in this selection, but these have been our choice. We hope readers will find this information useful for the clinical practice.

START STUDY: THOSE IN MOST NEED ARE THOSE BENEFITING THE MOST

The START Study was presented and published for the first time in 2015[1]. The study has been a hallmark in HIV medicine, as it established the benefits of initiating early antiretroviral therapy, i.e. in patients with a CD4 count greater than 500 cells/mm^3. The clinical trial included patients with more than 500 CD4 cells/mm^3, who were randomized to initiate treatment immediately following randomization (the Immediate ART group) or to defer ART until de CD4 count declined to <350 cells/mm^3 or AIDS developed (the Deferred ART group). The primary composite endpoint was the development of serious AIDS or death from AIDS and/or the development of serious non-AIDS events and death not attributable to AIDS. The results were conclusive showing that the Immediate ART Group developed significantly less events, including both serious AIDS and serious non-AIDS events. Since the results of the START trial were presented, all the antiretroviral treatment guidelines have recommended to initiate treatment as soon as possible after the diagnosis. There is no reason to defer treatment, but there is some associated risk

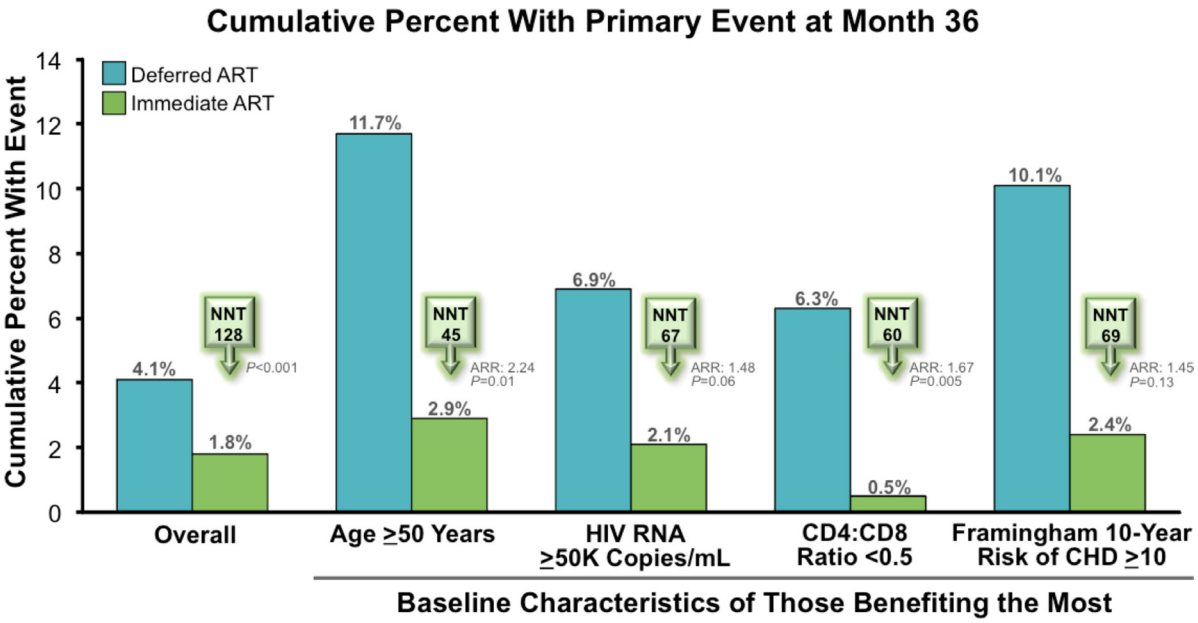

Figure 1 | **START Trial: Cumulative percentage with primary event at month 36.**

NNT: number needed to treat to prevent 1 primary event.
ARR: adjusted rate ratio (deferred-immediate ART).

In this new analysis of the START trial, the authors have investigated what subgroups of patients benefit the most from an early initiation of treatment[2]. Again the results are conclusive: those with the higher risk benefit the most. The baseline characteristics of those benefiting the most included age ≥50 years, HIV RNA ≥50,000 copies/mL, CD4:CD8 ratio <0.5 and a Framingham score at 10 years of ≥10 (figure 1). The number of patients needed to treat to avoid a serious event ranged from 45 in patients older than 50 to 69 in patients with a high Framingham score.

These results highlight the fact that, even with a relatively good immunological status, every HIV-infected patient would benefit of initiating ART, especially if some other characteristic put them at risk for any kind of event.

MORE WITH DOLUTEGRAVIR: TOWARDS THE MINIMALISM

Dolutegravir is an integrase inhibitor that has a higher genetic barrier than previous drugs within the class. Clinical trials have shown that no resistance mutations are selected after virological failure with dolutegravir containing regimens in patients without prior antiretroviral treatment and no integrase-associated mutations. This characteristic, together with a high intrinsic antiviral potency, has prompted investigators to evaluate the administration of the drug in single or dual regimens.

The PADDLE study assessed the efficacy of a dual regimen consisting of 3TC plus dolutegravir in antiretroviral-naïve patients[3]. Inclusion criteria were a CD4 count greater than 200 cells/mL and a viral load lowen than 100,000 copies RNA HIV/mL. All the 20 patients analysed had undetectable viral load (<50 copies/mL) at 24 weeks (primary endpoint), including 4 patients who had a viral load >100,000 copies/mL at baseline. The success of this pilot trial has been the basis for two phase III clinical trials using the combination of 3TC/dolutegravir, as initial therapy in one case and in swithching therapy in the other.

The use of dolutegravir as monotherapy as a switching strategy in suppressed patients has not been so successful[4,5]. Several studies have shown a high rate of virological failure with the development of resistance mutations to dolutegravir. With this bad experience, dolutegravir monotherapy will not be further evaluated as a potential simplification strategy.

GUIDELINES ON ANTIRETROVIRAL THERAPY: MORE RESTRICTIVE

Guidelines on antiretroviral therapy are widely used. Given the important changes provided by clinical trials and the introduction of new drugs, most guidelines are revised every year or, at most, every two years. Surprisingly, we have frequently seen important differences in the recommendations of different guidelines, despite the fact that the root information is the same throughout the world.

Classically, international or local guidelines could be included in one of two classes: those that recommended a higher variety of first-choice regimens to initiate antiretroviral therapy, and those that limited the number of first choice options. The last edition of most guidelines, however, has converged in being more restrictive, limiting the preferred regimens to those based on integrase inhibitors[6,7]. Protease inhibitor- or non-nucleoside- based regimens have been placed as alternative regimens, with only a few exceptions[8,9]. The high efficacy and good tolerability shown in controlled clinical trials justify the consideration given to the integrase inhibitor class.

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