Correction: HIV-Specific IL-21 Producing CD4+ T Cells Are Induced in Acute and Chronic Progressive HIV Infection and Are Associated with Relative Viral Control

Feng Yun Yue, Calvin Lo, Ali Sakhdari, Erika Yue Lee, Colin M. Kovacs, Erika Benko, Jun Liu, Haihan Song, R. Brad Jones, Prameet Sheth, Duncan Chege, Rupert Kaul and Mario A. Ostrowski

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Corrections


In Fig 2A, the statistical symbols should not be placed in the CMV Ag conditions, as the differences between groups are not statistically significant.

In Fig 2E, the statistical symbols have been corrected from *** to ** for IFN-γ versus IL-2 in HIV/chronic and for IFN-γ versus IL-2 for HIV/LTNP. The symbols were removed from IFN-γ versus IL-2 for HIV/acute.

The corrected figure is shown on the following page. The published figure legend is correct but is shown here for reference.

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FIGURE 2. Viral-specific IL-21–producing cells are detectable in HIV infection. In A, summary data of IL-21–producing CD4$^+$ T cells in response to HIV p55 Ag, CMV lysate, and SEB, and stained as described in Fig. 1. The x-axis represents clinical group. LTNP with VL <200 copies/ml. The y-axis represents % CD4$^+$ T cells producing IL-21. In B, PBMCs from a normal volunteer (neg) (OM611), an HIV-infected LTNP (OM25, plasma VL <50 copies/ml), two chronic progressors (C) (OM 2, VL = 5000 copies/ml; OM7, VL = 373,631 copies/ml), and two acute seroconverters (A) (OM5029, VL = 12,832 copies/ml; OM5018, VL = 29,000) were cultured in the presence of p55 Ag in plain medium and were assessed for IL-21 by ELISA at 7 d. A low VL during acute/chronic HIV infection was defined as <20,000 copies/ml. In C, comparisons between IL-21 responses to HIV p55 Ag were performed in the same HIV-infected individuals listed in (B) by ELISA and intracellular flow cytometry. In D, IL-21 mRNA is demonstrated from PBMCs (read from left to right) that were treated with either 1 $\mu$g/ml SEB, 5 $\mu$g/ml HIV p55, or medium control for 6 h, lysed, and RNA was extracted as described in the Materials and Methods. RNA samples from these various subjects and stimulation conditions were diluted to 10 ng/µl and quantitated by one-step Taqman RT-qPCR as described in the Materials and Methods. Relative quantitations of IL-21 and TBP (housekeeping gene) mRNA were assigned by comparison with a standard curve that was generated by serial dilutions of RNA from SEB stimulated PBMCs taken from an HIV-uninfected subject. All samples were analyzed in quadruplicate. Shown are mean ratios of IL-21/TBP relative quantitations expressed as arbitrary units. Error bars represent SE. PBMCs from the following subjects were examined: OM2 (chronic progressor, VL = 5000 copies/ml, C low), OM4 (LTNP, VL = 49 copies/ml, LTNP low), OM14 (chronic progressor, VL = 7000 copies/ml, C low), OM442 (acute seroconverter, VL = 26,388 copies/ml, A high), OM5037 (acute seroconverter, VL = 13,948 copies/ml, A low), OM 5037 (HIV-uninfected, neg). Subjects OM2, OM4, OM14, and OM5037 had HIV p55 IL-21–producing CD4$^+$ T cells >0.03%, whereas OM442 and 5037 did not have detectable frequencies of >0.02%. In E, summary data of cytokine producing CD4$^+$ T cells in the HIV cohort in response to HIV p55 Ag. The x-axis shows specific cytokine response to HIV. IL-2 and IFN-γ represents cells producing both cytokines in response to Ag, which are subsets of IFN-γ and IL-2 responses. Comparisons with statistical significance are shown as ***p < 0.005; **p < 0.05.