Modified vaccinia Ankara expressing HIVA antigen stimulates HIV-1-specific CD8 T cells in ELISpot assays of HIV-1 exposed infants[star]

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Date: 2005

Abstract:

Recombinant modified vaccinia Ankara expressing HIV-1 antigens (MVA.HIVA) was used in ELISpot assays to monitor HIV-1-specific T cell responses in infants. Responses to MVA.HIVA and HIV-1 peptides were examined in 13 infected and 81 exposed uninfected infants in Nairobi, Kenya. Responses to MVA.HIVA (38%) and peptide stimulation (38%) were similar in frequency (p = 1.0) and magnitude (mean 176 versus 385 HIVSFU/106, p = 0.96) in HIV-1 infected infants. In exposed uninfected infants, MVA.HIVA detected more positive responses and higher magnitude responses as compared to peptide. MVA.HIVA ELISpot is a sensitive method for quantification of HIV-1-specific CD8+ T cell responses in HIV-1 exposed infants. These results demonstrate the relevance of HIV-1 clade A consensus-derived immunogen HIVA for the viruses currently circulating in Nairobi.