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Improvement of Onychomycosis without Antifungal Therapy after Initiation of Highly Active Anti-Retroviral Therapy (HAART) in an HIV-Infected Patient

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Immunodeficiency caused by the human immunodeficiency virus type-1 (HIV-1) has produced many characteristic opportunistic infections such as *Pneumocystis carinii* pneumonia, Kaposi's sarcoma, cytomegalovirus retinitis, *Mycobacterium avium* complex bacteremia, and several fungal infections. Most of these infections are progressive, and sometimes fatal without specific therapies. However, it has recently been reported that the incidence of such infections was decreasing (1,2) and, further that some of them improved without specific therapies, after the introduction of HAART (3, 4). We encountered a case of onychomycosis that improved without antifungal therapy, after initiation of HAART including stavudine (d4T), lamivudine, and nelfinavir.

A Japanese homosexual man with HIV infection visited our hospital because of syphilis. His CD4 count at the first visit was 27/mm^3. At that time, he had been suffering from onychomycosis on the right thumb for more than a year. His syphilis was cured by penicillin treatment, then, HAART was started in September, 1997. The onychomycosis began to improve, without any specific antifungal therapy, at the fourth week after commencement of HAART, when the patient's CD4 count rose to 122/mm^3. By the eighth week (November, 1997), normal nail tissue had replaced half of the part infected from Matrix unguis (Fig. 1), and by the 12th week, when the CD4 count increased to 115/mm^3, the nail had regained normal tissues. HAART for this patient was changed to d4T/didanosine/indinavir in March, 1998 when his viral load again increased. His immunological and virological data (Fig. 2) as well as onychomycosis continued to improve thereafter. Before the HAART era, patients with advanced HIV-1 infection often suffered from dermal fungal infections. To our knowledge, this is the first case report of improvement of onychomycosis after initiation of HAART. This case represents the importance of HAART not only for HIV therapy

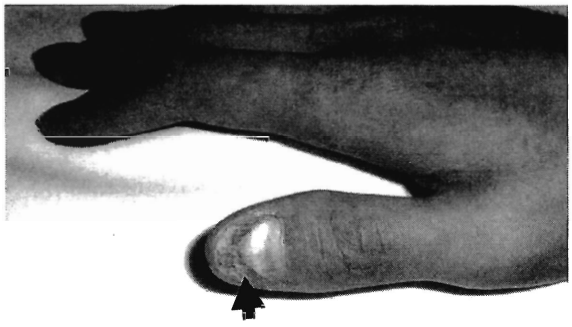

Fig. 1. Recovering onychomycosis on the right thumb at the eighth week (Nov., 1997) after commencement of HAART. As the arrow indicates, normal nail tissue replaced half of the part infected from Matrix unguis.

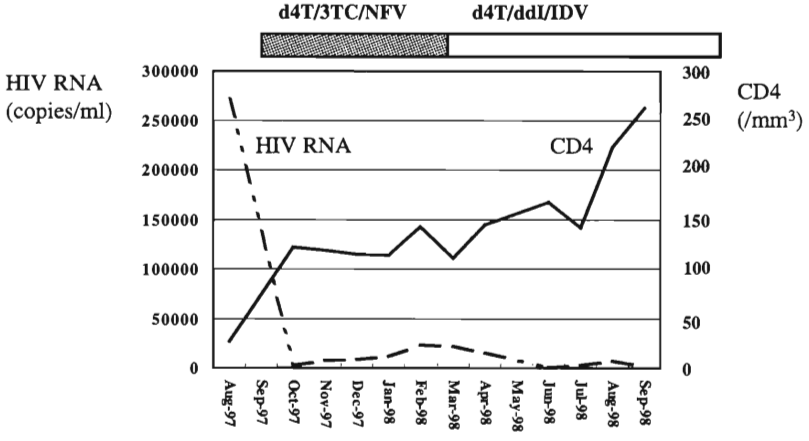

Fig. 2. The clinical course of an HIV-1 infected patient who suffered from onychomycosis. d4T, stavudine; 3TC, lamivudine; NFV, nelfinavir; ddI, didanosine; IDV, indinavir

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but for the control of onychomycosis.

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