CLINICAL PRACTICE
Clinical Images

Dermatologic Manifestations as Indicators of Immune Status in HIV/AIDS

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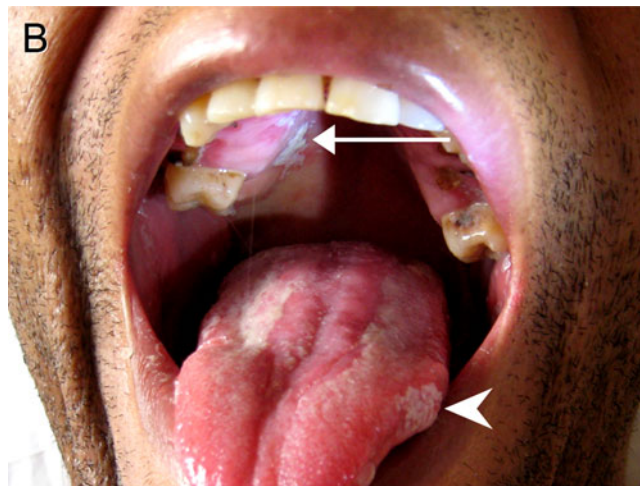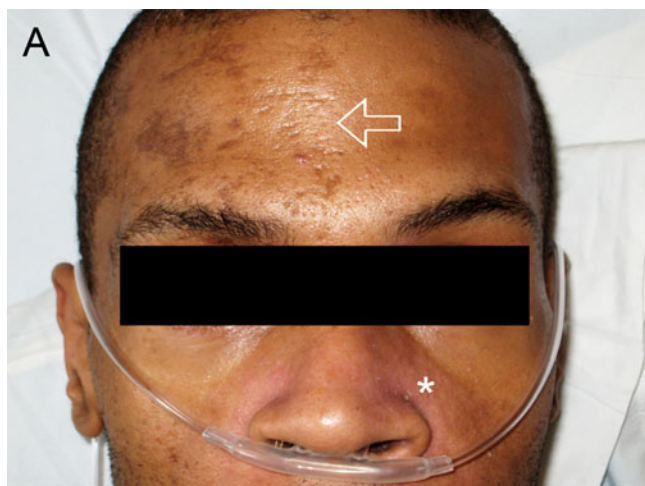
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A 41-year-old man with human immunodeficiency virus (HIV) infection was admitted with dyspnea on exertion and a nonproductive cough. He was successfully treated for pneumocystis jirovecii pneumonia. Admission physical examination revealed stigmata of four HIV-associated infections demonstrated in the two clinical images: 1) scarring from herpes zoster in the right ophthalmic (V1) distribution of the trigeminal nerve (Panel A, hollow arrow); 2) seborrheic dermatitis in the bilateral nasal folds (Panel A, asterisk); 3) oropharyngeal candidiasis (Panel B, arrow); and 4) oral hairy leukoplakia (OHL; Panel B, arrowhead).

Dermatologic manifestations are common among patients with HIV and may provide a clinical indication of underlying immune status. Herpes zoster and seborrheic dermatitis tend to occur early in HIV infection and are associated with relatively high mean CD_4 cell counts ($380/mm^3$ and $450/mm^3$, respectively)[1]. Oral candidiasis, the most common oral opportunistic infection in patients with HIV/AIDS, often presents at CD_4 cell counts less than $300/mm^3$[2]. OHL is relatively specific for HIV infection and is highly predictive of the development of acquired immune deficiency syndrome (AIDS)[3]. It is associated with a mean CD_4 cell count of $143/mm^3$[4]. The presence of both oral candidiasis and OHL together suggest more severe immune dysfunction; these concomitant infections are associated with a mean CD_4 cell count of $89/mm^3$[5]. In one study, the joint occurrence of any two HIV-related oral lesions had a mean CD_4 cell count of $123/mm^3$ and a 75% positive predictive value of finding a CD_4 cell count less than $200/mm^3$[4]. Our patient had a CD_4 cell count of $32/mm^3$.

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