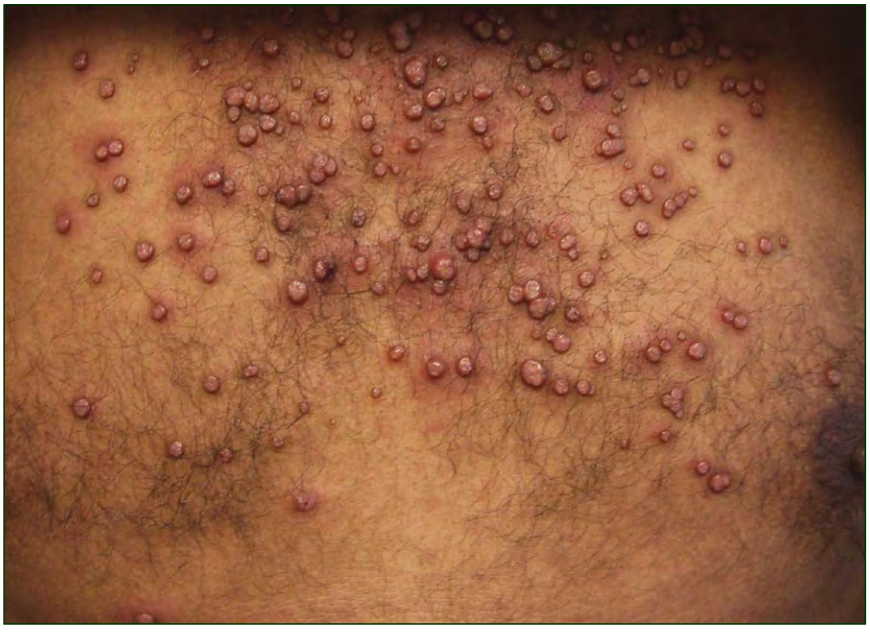
What Is Your Diagnosis?



A 43-year-old man with AIDS, a $CD4^+$ lymphocyte count of 4 cells/mm^3, and a medical history of multiple opportunistic infections presented with numerous disseminated skin lesions that became tender and inflamed 3 months after initiating antiretroviral therapy. The patient denied mucosal lesions.

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The authors report no conflict of interest.
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The Diagnosis: Inflamed Molluscum Contagiosum as a Manifestation of Immune Reconstitution Inflammatory Syndrome

Physical examination of our patient revealed hundreds of dome-shaped, umbilicated, flesh-colored papules on an erythematous base that ranged from 3 to 6 mm in size and were scattered across the chest (Figure 1), neck, and face. No mucosal lesions were noted. Ten months later, his CD4 lymphocyte count rose to 260 cells/mm^3 and his skin lesions had resolved without scarring, bearing only mild postinflammatory hyperpigmentation (Figure 2).

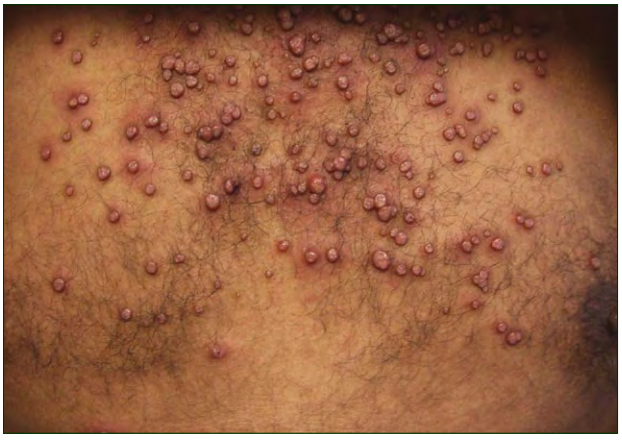

Figure 1. Dome-shaped, umbilicated, flesh-colored papules with surrounding erythema on the chest.

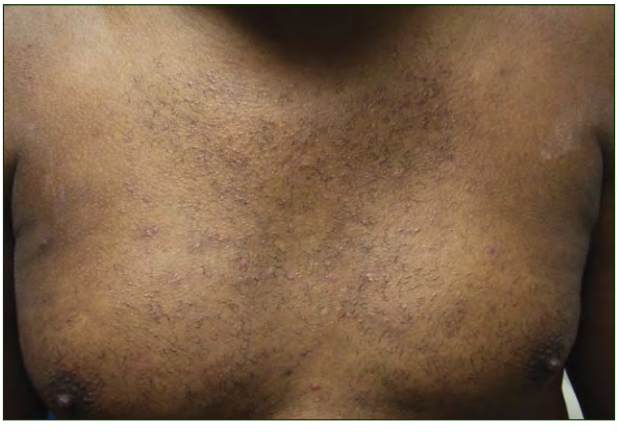

Figure 2. Molluscum contagiosum skin lesions resolved without scarring, bearing only mild postinflammatory hyperpigmentation.

Molluscum contagiosum is caused by molluscum contagiosum virus poxvirus types 1 through 4; disseminated lesions occur in human immunodeficiency virus–infected individuals with CD4 lymphocyte counts less than 100 cells/mm^3 and are commonly associated with molluscum contagiosum virus type 2 (MCV-2).[1,2] Clinically, molluscum contagiosum presents as dome-shaped, umbilicated, flesh-colored papules that may appear anywhere on the body including mucosal surfaces. The differential diagnosis of an umbilicated papule in an immunocompromised patient includes *Cryptococcus neoformans*, *Coccidioides immitis*, *Penicillium marneffei*, histoplasmosis, aspergillosis, sporotrichosis, chronic herpes, and mycobacterial infections. Antiretroviral therapy can be first-line therapy for disseminated molluscum contagiosum in human immunodeficiency virus–infected patients.[3] Immune reconstitution against this opportunistic viral infection of the skin may present as erythema, edema, inflammation, or pruritus around the lesions and may ultimately lead to complete clearance without scarring.[4]

Immune reconstitution inflammatory syndrome (IRIS), also known as immune reconstitution syndrome, is a condition observed in immunocompromised individuals with paradoxical worsening of a previously acquired and often clinically silent opportunistic infection due to inflammation generated by a recovering immune system.[5] It occurs in approximately 10% to 25% of AIDS patients who initiate antiretroviral therapy, often seen in the early months following initiation of treatment as the CD4 lymphocyte count rises to be greater than 250 cells/mm^3.[6] Advanced immunosuppression, indicated by a CD4 lymphocyte count less than 100 cells/mm^3, has been reported as a risk factor for the development of IRIS; other potentially important independent risk factors include younger age at initiation of antiretroviral therapy and a CD4:CD8 ratio of less than 0.15.[6,7]

Immune reconstitution inflammatory syndrome has been described in association with a number of infections in patients with AIDS but is most commonly observed in infection with molluscum contagiosum, mycobacterial infection (both atypical mycobacteria and *Mycobacterium tuberculosis*), herpes simplex and varicella-zoster viruses, genital warts,

cytomegalovirus, Kaposi sarcoma, leprosy, cryptococcal meningitis, and *Pneumocystis carinii* pneumonia. Because many infections associated with IRIS have cutaneous manifestations, it is an important clinical entity for dermatologists to recognize; however, severe or life-threatening cases of IRIS are rare and systemic anti-inflammatory agents or discontinuation of antiretroviral therapy is seldom necessary.[6]

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