

# Multiple Papules on the Eyelid Margin

What's the diagnosis?

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A 24-year-old man presented with multiple tiny papules over the left eyelid margin of 2 to 3 months' duration. There were a couple of papules on the left upper eyelid initially, but they progressed to the upper and lower eyelid margin after scratching. On physical examination, multiple whitish to flesh-colored pearly papules measuring 1 to 2 mm were located on the left eyelid margin. Palpebral follicular conjunctivitis also was noted.

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## The Diagnosis: Molluscum Contagiosum

**D**ermoscopy showed multiple whitish amorphous structures with peripheral blood vessels (Figure 1). A skin biopsy specimen from the lower eyelid revealed loculated and endophytic epidermal hyperplasia. The keratinocytes contained large eosinophilic intracytoplasmic inclusion bodies, and the diagnosis of molluscum contagiosum (MC) was confirmed (Figure 2). Laboratory results were positive for human immunodeficiency virus (HIV) infection with a CD4 lymphocyte count of 18 cells/mm<sup>3</sup> and viral load of 199,686 copies/mL. The patient was treated with CO<sub>2</sub> laser therapy for eyelid lesions. A regimen of highly active anti-retroviral therapy (HAART) was later started using a combination of lamivudine-zidovudine (150 mg and 300 mg) as well as lopinavir-ritonavir (400 mg and 100 mg), both twice daily. There was no recurrence at 3-month follow-up.

Molluscum contagiosum is a common cutaneous infection that is caused by a double-stranded DNA poxvirus. The clinical manifestations of MC are solitary or multiple, tiny, dome-shaped, pale, waxy or flesh-colored papules with central umbilication. The skin lesions can be located anywhere on the body. It occurs mostly in children, but adults also may be affected. In patients with atopic dermatitis or immunocompromised status such as AIDS, acute lymphoblastic leukemia, multiple myeloma, hyperimmunoglobulin E syndrome, or treatment with prednisone and methotrexate, the cutaneous lesions may be more extensive with an atypical presentation.<sup>1-6</sup>

The diagnosis of MC is mainly made by clinical inspection. However, Giemsa staining, Papanicolaou tests, and histopathology are useful for diagnosis of atypical MC.<sup>7</sup> Dermoscopy is a noninvasive and fast diagnostic tool for MC.<sup>8,9</sup> In dermoscopy, MC is characterized by multiple spherical, whitish, amorphous structures with a crown of blood vessels surrounding the periphery, termed *red corona*.<sup>8,9</sup> The whitish amorphous structures and red corona correlate with inclusion bodies and dermal dilated blood vessels, respectively.

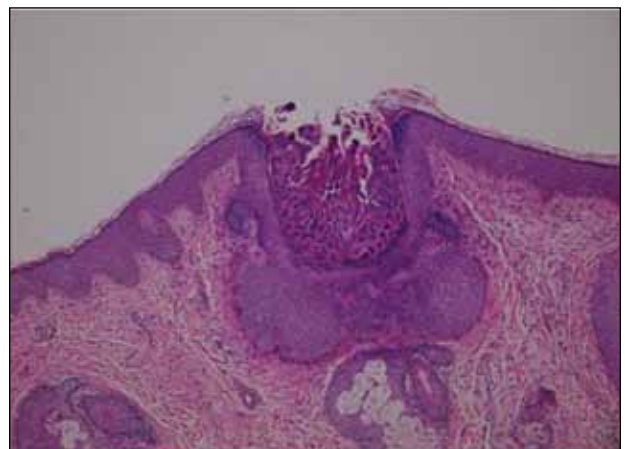
Approximately 13% of HIV patients have cutaneous MC, and the lesions tend to be more diffuse and refractory to treatment.<sup>10</sup> A giant variant and abscess formation also have been described.<sup>11,12</sup> Molluscum contagiosum of the eyelids often occurs in advanced HIV infection with a CD4 count less than 80 cells/mm<sup>3</sup>.<sup>1</sup> These patients often have been diagnosed with HIV before developing eyelid MC. The severity of MC in immunocompromised patients may be related to the deficits of cell-mediated immunity,

especially the T helper 1 (T<sub>H</sub>1) cytokine pathway. One case report also showed the clinical remission of MC after restoration of CD4 count with HAART.<sup>13</sup> Our patient was not previously diagnosed with HIV and the MC of the eyelid margin was the early presentation of AIDS.

Molluscum contagiosum of the eyelids may cause chronic keratoconjunctivitis or even vascular infiltration and scarring of the peripheral cornea.<sup>14</sup> These manifestations may be attributed to a hypersensitivity reaction to viral protein in tear film. Therefore,



**Figure 1.** Multiple whitish amorphous structures with peripheral blood vessels on dermoscopy.



**Figure 2.** Histopathology revealed loculated and endophytic epidermal hyperplasia. The keratinocytes contained Henderson-Patterson bodies (H&E, original magnification ×100).

individuals with eyelid MC should accept thorough examination of the conjunctiva and cornea.

Treatment options include surgical excision, CO<sub>2</sub> laser, curettage, and hyperfocal cryotherapy.<sup>15</sup> Several reports also have demonstrated effectiveness of cidofovir for treatment of extensive MC lesions.<sup>16</sup> Highly active antiretroviral therapy may play a role in the treatment of patients with AIDS by restoring the CD4 count.<sup>13</sup> However, a few patients may develop immune reconstitution inflammatory syndrome, an intensive inflammatory reaction to pathogens after HAART, leading to paradoxical worsening of existing infection. Spontaneous corneal perforation due to immune reconstitution inflammatory syndrome in a case with eyelid and conjunctival MC has been reported.<sup>17</sup> Therefore, physicians should perform MC therapy before HAART and mucocutaneous lesions should be followed regularly to prevent possible morbidity.

In summary, we report a case of AIDS with the initial presentation of MC on the eyelid margin. Physicians should test for HIV infection in patients with an atypical presentation of MC. The ocular mucosa also should be examined in patients with MC of the eyelid to prevent possible complications.

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