Case Report

Giant molluscum contagiosum unmasked probably during an immune reconstitution inflammatory syndrome

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Abstract

Restoration of specific immune responses by combined antiretroviral therapy (cART) in patients infected with human immunodeficiency virus (HIV) may paradoxically cause an inflammatory reaction known as immune reconstitution inflammatory syndrome (IRIS). We report the emergence of giant nodules of molluscum contagiosum (MC) on the face and thighs 2 months after initiation of cART in a 45-year-old male patient with acquired immune deficiency syndrome. To the best of our knowledge, our report describes the first case of MC probably unmasked during IRIS from India.

Key words: Giant molluscum contagiosum, HIV, immune reconstitution inflammatory syndrome, immunosuppression

INTRODUCTION

Molluscum contagiosum (MC) virus is a double-stranded DNA pox virus that almost exclusively infects humans[1] typically causing flesh-colored, smooth, umbilicated 2–5 mm diameter-sized papules either during childhood and/or later in the sexually active. In the immunocompetent, this infection is usually self-limited, lasting for 6–9 months if untreated. Its lesions are often larger, more numerous, more severe, and recalcitrant in the immunosuppressed, especially due to human immunodeficiency virus infection.[2]

Although combined antiretroviral therapy (cART) usually suffices to resolve the lesions of MC, sudden appearance of giant MC may be provoked by an augmented immune response.[3] We herein present such a probable case of the immune reconstitution inflammatory syndrome (IRIS).

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CASE REPORT

A 45-year-old Indian man presented with a history of the sudden and progressive appearance of large, asymptomatic, nodular, umbilicated lesions on the face and thighs since 3 months. Five months earlier while hospitalized at a municipal hospital for prolonged diarrhea, he was diagnosed with AIDS. Dermatological examination at that time had revealed no skin lesions. His CD4 count was 5 cells/mm^3; HIV plasma load was not assessed due to financial constraints. The patient was put on tenofovir, emtricitabine, and lamivudine.

Dermatological examination on presentation to us revealed preponderantly skin-colored, umbilicated, numerous, discrete but clustered, shiny nodules of 1–3 cm diameter with surrounding erythema over the face – including eyelids – and upper thighs. Interspersed sparse papules were also present [Figure 1]. Giemsa-stained crush preparation

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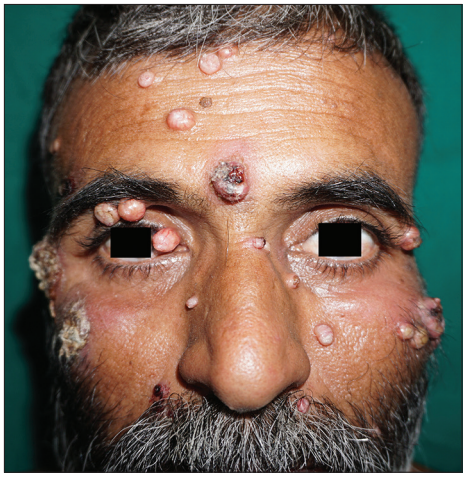

Figure 1: Discrete/clustered, solid, skin-colored, 1–3 cm-sized nodules; the glabellar/left cheek one encrusted and those on the right cheek, verrucous; in addition, interspersed sparse popular lesions are seen

of the central contents revealed characteristic intracytoplasmic inclusions. CD4 count, repeated in our center, was 125 cells/mm^3. Complete blood count and chest X-ray posteroanterior view were normal.

The patient was diagnosed as a case of giant MC secondary to IRIS and subjected to cryotherapy twice after counseling regarding the nature and course of MC as well as IRIS. His lesions reduced partially in size. He was given discharge on request and advised 5% imiquimod cream application once daily 3 days a week. He is on regular follow-up, with a CD4 count of 164 cells/mm^3 after 6 months of ART, in expectation of eventual satisfactory outcome with the ongoing cART therapy.

DISCUSSION

Patients with low CD4 cell count at the time of initiation of cART are more likely to develop IRIS due to shifting toward a more pro-inflammatory state as a result of regaining microbe-specific immune activity. A rapid fall of HIV load has assumed a central role in some definitions of IRIS. Two forms of IRIS involve either the clinical worsening of an existing (paradoxical IRIS) or the emergence (unmasking IRIS) of a pathogen/process; the latter was the likely pathogenetic mechanism in our case though the nonaffordability of viral load estimation precludes it unequivocally in our patient.[4] Although the interval between the start of cART and the beginning of IRIS is highly variable ranging from a week to more than a year, it – as in our case – is usually 2 months.[5]

Although the disseminated giant or verrucous MC lesions occur in up to a third of the HIV-infected patients having CD4 count <100 cells/mm^3, these usually resolve with recovery of CD4 count >200 cells/mm^3 and seldom get reported as a part of IRIS.[6] The largest study on a cohort of 199 patients with HIV revealed the presence of MC as a part of IRIS in just four patients.[4] Despite diligent literature search, we did not come across any such report from the Indian subcontinent so far.

Therapeutic options for refractory MC, largely anecdotal, include 3% cidofovir cream, photodynamic therapy with 5-aminolevulinic acid, topical imiquimod, and cryotherapy, among others.[7] In view of the lack of evidence based on well-controlled clinical trials regarding the treatment of MC-IRIS, we were left with the only option of counseling the patient at the time of discharge in the hope of eventual resolution of lesions with the raise in CD4 count consequent to cART therapy.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Mansur AT, Göktay F, Gündüz S, Serdar ZA. Multiple giant molluscum contagiosum in a renal transplant recipient. Transpl Infect Dis 2004;6:120-3.
2. Gardner LS, Ormond PJ. Treatment of multiple giant molluscum contagiosum in a renal transplant patient with imiquimod 5% cream. Clin Exp Dermatol 2006;31:452-3.
3. Drain PK, Mosam A, Gounder L, Gosnell B, Manzini T, Moosa MY, *et al.* Recurrent giant molluscum contagiosum immune reconstitution inflammatory syndrome (IRIS) after initiation of antiretroviral therapy in an HIV-infected man. Int J STD AIDS 2014;25:235-8.
4. Lehloenya R, Meintjes G. Dermatologic manifestations of the immune reconstitution inflammatory syndrome. Dermatol Clin 2006;24:549-70, vii.
5. Pereira B, Fernandes C, Nachiambo E, Catarino MC, Rodrigues A, Cardoso J, *et al.* Exuberant molluscum contagiosum as a manifestation of the immune reconstitution inflammatory syndrome. Dermatol Online J 2007;13:6.
6. Sung KU, Lee HE, Choi WR, Seo MC, Yoon HJ. Molluscum contagiosum as a skin manifestation of immune reconstitution inflammatory syndrome in an AIDS patient who is receiving HAART. Korean J Fam Med 2012;33:182-5.
7. Chen X, Anstey AV, Bugert JJ. Molluscum contagiosum virus infection. Lancet Infect Dis 2013;13:877-88.