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Case Report

Dermatology Section

Extensive Giant Molluscum Contagiosum in a HIV Positive Patient

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ABSTRACT

Molluscum contagiosum (MC) is a very common benign self-limiting cutaneous viral infection caused by molluscum contagiosum virus. Disease is self-limiting in immunocompetent individuals, while it is severe and prolonged when associated with Human Immunodeficiency Virus (HIV) infection. The widespread and refractory mollusca of HIV disease occur especially on the face. In advanced stages of immunosuppression, giant or verrucous forms of MC may occur. Molluscum contagiosum tends to take a chronic course and is usually not responsive to various treatments in immunocompromised patients. Here, we present a HIV positive male patient with extensive papulonodular lesions over face, neck, bilateral upper limbs since 2 months, diagnosed as giant molluscum contagiosum, treated with cryotherapy with little improvement for few weeks after which patient did not turn up.

Keywords: Cutaneous viral infection, Immunocompromised patient, Papulonodular lesions

CASE REPORT

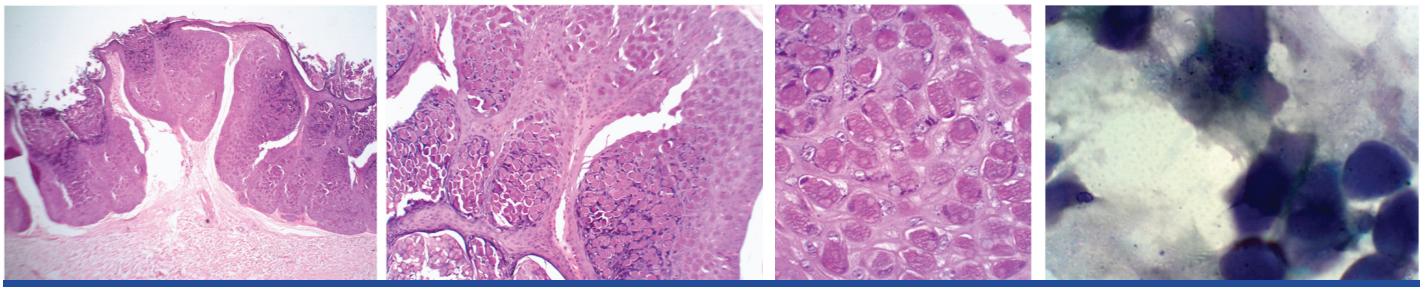
A 58-year-old, sero positive male, labourer by occupation, presented with multiple skin lesions all over body since 2 months. Patient gives history of blood transfusion thrice, 10 years back. Patient was known case of HIV since twenty four months and was on Anti Retroviral treatment (Tenofovir, Lamivudine and Efavirenz fixed dose combination) since eighteen months. There was no history of drug abuse or extramarital sexual contact. No history of any sexually transmitted disease or herpes zoster. Patient married since 35 years, his partner is also sero positive for HIV, diagnosed one year ago. On cutaneous examination, there were multiple (more than 100) shiny, non discharging, non tender, papulonodular lesions over face, neck [Table/Fig-1,2] and bilateral upper extremities [Table/Fig-3], few of them having central umbilication. Most lesions were approximately measuring about 10 to 20mm. Few lesions were below 10 mm in size. Koebnerization was present [Table/Fig-3]. There was no mucosal involvement. There were no other signs or symptoms related to AIDS (Acquired immunodeficiency syndrome). His CD4 count was 174cells/microlitre. Lymph nodes were not palpable and systemic examination was unremarkable. Routine haematological and biochemical investigations were within normal limits. Clinically differential diagnosis of cutaneous cryptococcosis, disseminated molluscum contagiosum (MC) was made. Histopathological examination revealed epithelial hyperplasia [Table/Fig-4]. Distinct large eosinophilic intracytoplasmic inclusion bodies (Henderson Peterson bodies) were seen in the squamous epithelial cells pushing the nucleus to a corner [Table/Fig-5,6]. Giemsa stain (Tzanck smear) of the lesions was done and the diagnosis of molluscum contagiosum was confirmed [Table/Fig-7]. Patient was treated with cryotherapy with little improvement for two months. After two months, he did not turn up for follow-up.

[Table/Fig-1]: Giant molluscum over face & neck **[Table/Fig-2]:** Shiny, papulonodular lesions, few of them with central umbilication over face **[Table/Fig-3]:** Giant molluscum seen on upper extremity

DISCUSSION

Molluscum contagiosum (MC) is a very common benign self-limiting mucocutaneous viral infection caused by molluscum contagiosum virus (MCV) belonging to the Pox virus family. Incidence peaks in pre-school children [1]. In children the infection is acquired through fomites and close contact while in adults having genital lesions, the disease is ususally sexually transmitted. Disease is self-limiting in immunocompetent individuals, while it is severe and prolonged when associated with Human Immunodeficiency Virus (HIV) infection. In the presence of HIV infection, the clinical appearance and the course of molluscum contagiosum are atypical. Upper trunk and the face are more frequently involved sites [2]. Between 10-20% of patients with symptomatic HIV disease or AIDS have molluscum contagiosum (MC) [3]. Usually the lesions of MC in HIV infected patients are multiple (up to 100 or more). In most of the patients with AIDS, MC lesion is found to be extragenital. The sites most frequently involved are the upper trunk and the face. The lesions can be present extensively over the face including eyelids [4]. Various other sites affected are neck, axillae, groin and buttocks [5]. The typical distribution indicates that the transmission of the virus by occasional contact, or through objects and fomites is more likely than sexual transmission [6]. In a cohort study conducted by Ratnam I et al., 4 of 199 HIV positive patients, developed molluscum contagiosum as immune reconstitution inflammatory syndrome (IRIS) phenomenon. Lesions of molluscum appeared a median of eight weeks after starting HAART [7]. There are case reports of IRIS presenting even as an inflamed molluscum [8].

The lesions of molluscum in patients of HIV can appear verrucous, pruritic or eczematous [9]. Lesions of molluscum can have a wide variety of presentations like comedones, abscesses, furuncles, condylomas, syringomas, keratoacanthomas, basal cell carcinomas, ecthyma, sebaceous nevus of Jadassohn, and cutaneous horn [10]. Differential diagnosis of molluscum contagiosum virus disease includes cryptococcosis, penicillinoses, histoplasmosis, pneumocystosis, pyogenic granuloma, basal cell carcinoma, kerato acanthoma, and atypical mycobacterial infections [11]. In immunosuppressed patients, the disease tends to take a chronic course and often is unresponsive to various treatments. Individual lesions of MC may be quite large with a diameter of 10 mm or more and designated as “giant molluscum contagiosum" [12]. The pathogenesis of giant lesion as well as the modified morphology of MC in HIV infected state is as yet unknown. Various factors such as decrease in number of T cells,



[Table/Fig-4]: Haematoxylin Eosin stain, (low power 40x) Epithelial hyperplasia with few distinct eosinophilic deposits **[Table/Fig-5]:** Haematoxylin Eosin stain, (high power 100x) squamous epithelial cells showing distinct large eosinophilic intracytoplasmic inclusions (Henderson Peterson bodies) pushing the nucleus to a corner
[Table/Fig-6]: Haematoxylin Eosin stain, (high power 400x) Squamous epithelial cells showing distinct large eosinophilic intracytoplasmic inclusions (Henderson Peterson bodies) pushing the nucleus to a corner **[Table/Fig-7]:** Tzanck smear (Giemsa stain, 1000x, oil immersion) Squamous epithelial cells showing distinct basophilic intracytoplasmic inclusions (Henderson Peterson bodies)

impaired natural killer cell function, impaired blastogenic reponses to mitogens and antigens and decrease in Langerhans cells, have been thought to play a role in the pathogenesis of giant molluscum contagiosum in HIV patients [13]. The lesions are usually persistent and tend to recur after treatment. Giant molluscum contagoisum was also reported to occur in an immunocompetant patient [14], patient with idiopathic CD4 lymphocytopenia [15], a patient of chronic psoriasis on efalizumab therapy [16].

There are different treatment modalities for molluscum contagiosum which include surgical methods, cytodestructive methods. Surgical methods, such as, curettage, electrodessication, cryotherapy, and laser surgery are used. Cytodestructive methods include use of cantharadin, iodine, lactic acid, phenol, salicylic acid, silver nitrate, tretinoin, and trichloroacetic acid. Chemotherapeutic and antiviral drugs like Cidofovir, interferon and imiquimod are effective [8]. There are case reports where giant molluscum occurring in HIV patients, regressing with HAART [17], combination of HAART and topical imiquimod [18,19], paclitaxel [20].

Local destructive therapies are usually ineffective in patients with impaired immune functions with widespread and disfiguring eruptions. In these cases, Antiviral and immunomodulatory medications have been more successful in these cases [21].

Amino Levulinic Acid-Photodynamic therapy was used successfully in the treatment of recalcitrant molluscum contagiosum in an HIV individual by Gold [22]. PDT (photodynamic therapy) is a viable option for treating molluscum contagiosum in HIV-positive patients and immunocompromised children [23].

CONCLUSION

Any patient, thus, presenting with giant mollusca contagiosa or any atypical form of molluscum contagiosum especially of the face should be thoroughly investigated for immunosuppressive states especially HIV infection.

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