Case Report

Atypical Molluscum Contagiosum Mimicking Cutaneous Warts in an HIV Patient

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Abstract

Molluscum contagiosum (MC) is clinically characterized by small, dome-shaped, pearly-white to skin-colored papules and a self-limiting course. MC may present in several atypical morphologies which mimicking other dermatoses, especially on an immunocompromised patients. The lesions are usually extensive and cause disfigurement when associated with HIV. The terminology of "agminated" MC describes the dense grouping of several MC lesions. The aim of this case report is to report the agminated MC which mimicking a cutaneous wart of an HIV patient. A 36-year-old married woman with HIV complained of multiple red bumps that were initially pea-sized and gradually increased in size and number. The lesion spread over the face, armpits, hands, thighs, genital area, and feet for 9 months. History indurated, painless, and ulcerative chancre was denied. There was no history of blood transfusion, trauma, or any drug intake before the appearance of these lesions. There were no such lesions present on her husband. There was no history regarding the HIV status of the husband. Her CD4 absolute count was 61 cells/mm and serological testing for syphilis was non-reactive. Based on the findings, the patient was diagnosed with atypical MC and planned to have cryosurgery. Unfortunately the patient was loss control to follow up. Awareness among clinicians regarding the atypical presentations of MC is of paramount importance in the early diagnosis and management of this contagious disease. Rarely, atypical presentations of MC have been described in immunocompromised patients. Dermoscopy and histopathological examination is needed to determine the diagnosis of these atypical MC.

Keywords : Atypical Molluscum Contagiosum, Cutaneous Warts, HIV.

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Introduction

Molluscum contagiosum (MC) clinically present with small, dome-shaped, pearly-white to skin-colored papules and a self-limiting course.[1] Transmission occurs through sexual and non-sexual contact with infected skin or objects that used together or through autoinoculation.[2] The epidemiology of MC varies in in all over the world. Data in United States is 33%, Australia 23% and East Africa 52% in children under 5 years of age. [3] In an epidemiological study in Spain for 20 years with 12,424 adult patients with sexual transmitted infections, 2.7% of them suffered from MC. [4] The prevalence of MC all over the world was estimated at 2%-8% with 5%-18% occurring in HIV/AIDS patients. Molluscum contagiosum virus (MCV) type 1 (MCV-1) which is the most common sub-type, while MCV-3 is rare. Analysis of 106 MCV isolated from patients with MC showed a ratio of MCV-1, MCV-2 and MCV-3 of 80:25:1, with MCV-2 more frequently found in adults.[3] The most commonly affected areas are the chest, back, armpits and genitals. Molluscum contagiosum rarely occurs on the palms, soles of the

Figure 1: *Physical examination showed variation in the lesion with typical central umbilicated dome-shape nodules with hard consistency, but some appeared as large coalescing nodules with a smooth and rounded surface. The acetowhite test was negative.*

feet, or mucous membranes. In HIV patients, MC tends to affect the anogenital area. This disease has a bimodal incidence, the first can occur in the first 5 years of life and the second can occur in young adults who are sexually active without any difference in incidence between genders.[5] MC in HIV patients can appear with various atypical morphologies that resemble other skin diseases. Agminated MC can resemble genital warts especially if it affects the anogenital area.[1]

Case Report

A 36-year-old woman came to the outpatient clinic of dermatology with red bumps appearing on genital area, buttocks, arms, hands, armpits, legs and feet since 11 months before seeking treatment. Initially, the bumps appeared in the genital area but over time they were felt to be increasing in number, then appearing on the buttocks, arms, hands, armpits, legs and feet. Several bumps on the genitals and buttocks merged and enlarged. Complaints of pain and itching were difficult to evaluate because the patient could not speak, but the patient appeared to often scratch the area of the bumps. Complaints of a hot or burning sensation were denied. The patient had never experienced similar complaints before. The patient was diagnosed with HIV infection 9 months before seeking treatment and routinely consumed ARVs Tenofovir, Lamivudine and Dolutegravir (TLD). The patient had a history of a brain tumor that had undergone craniotomy 4 months before the complaint appeared which made the patient unable to speak. Then the patient was treated in the Intensice Care Unit (ICU) for 1 month due to infection of toxoplasmosis since 3 months before the complaint appeared. There were no similar complaints in the patient's family or environment. The patient is a housewife and has sexual intercourse only with her husband, did not change partners, did not use condoms. History of indurated, painless and ulcerative genital wounds was denied. There was no history of blood transfusion, trauma, use of injection drugs together before the lesion complaint appeared. The husband had no similar complaints. History of genital wounds and genital warts

Figure 2: *A polylobular, pinkish-white, amorphous formation with a surrounding crown of vessels encircling it that did not pass through the center of the lobules (Dermoscopy).*

in the husband was denied. While in the history of the patient's husband often changing sexual partners, gonorrhea, red rashes all over the body and HIV were denied. From physical examination,

general condition appears moderately ill, weight 60 kg, compos mentis consciousness, GCS 4×6 (motoric aphasia). Blood pressure 128/78 mmHg, pulse rates 86/minute, respiratory rates 20/minute, axillary temperature 36.6°C, oxygen saturation 99%. There was no enlargement of lymph nodes in the neck, armpit and groin areas. Dermatological examination of the facial, axillary, gluteal, anogenital, superior and inferior extremities showed erythematous nodules, multiple, well-defined border, regular edges, varying shapes and sizes, with umbilication. Acetowhite examination was negative (Figure 1).

Laboratory examination of CD4 61, VDRL and TPHA non-reactive. Dermoscopy examination showed a yellowish-white lobule and a crown of vessels appearance (Figure 2). Evaluation of the central contents of the lesion using a crush preparation and Giemsa staining showed intracytoplasmic molluscum inclusion bodies (Figure 3).
Histopathological examination of the nodules showed tissue with squamous hyperplastic areas in the epidermis. Focus appears with epithelium containing intracytoplasmic eosinophilic inclusion bodies (Handerson-Patterson Bodies). The conclusion of histopathology results is in accordance with the description of Molluscum Contagiosum (Figure 4).

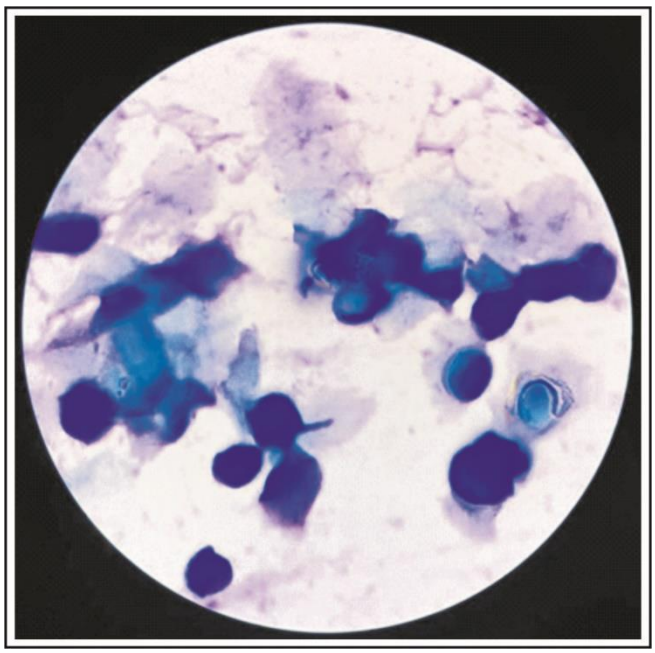

Figure 3: *Microscopic examination (Giemsa Stain) of of the lesion showed intracytoplasmic molluscum inclusion bodies.*

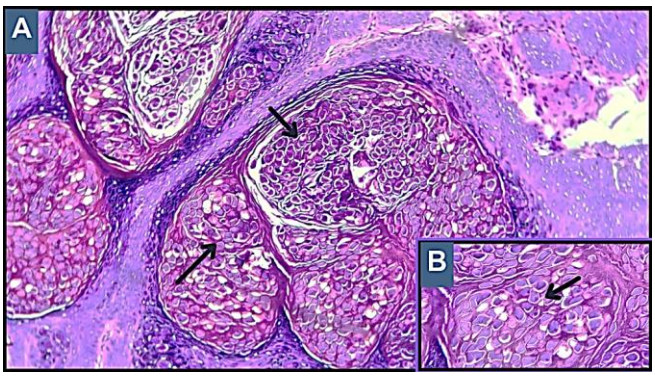

Figure 4: Large intracytoplasmic eosinophilic inclusions in keratinocytes (Henderson-Patterson Bodies), pushing the nucleus to the periphery. Biopsy was taken from the atypical lession (A, H&E, ×100) (B, H&E, ×400).

Based on anamnesis, physical and supporting examination, the patient was diagnosed with Molluscum Contagiosum and HIV infection. The patient was planned to undergo cryotherapy and continue ARV TLD.

Discussion

Molluscum contagiosum (MC) lesions arise when a tiny opening on the skin's surface allows the molluscum contagiosum virus (MCV) to spread from infecfted epidermal inclusion cysts (EIC) into nearby skin tissue. Immunocompromised adults, such as those with AIDS, are more susceptible to the reactivation of subclinical infections. Among sexually active adults, genital lesions are common. MCV infections produce distinctive pathological changes. The lesions are characterized by hyperplastic epidermis surrounding keratin-filled lobules and deteriorating molluscum bodies. In the basal layer, keratinocyte nuclei and cytoplasm enlarge, and mitosis increases. Within the stratum spinosum, cells exhibit cytoplasmic vacuolation and enlargement due to viral replication; they are then replaced by eosinophilic globules (molluscum bodies), which feature well-defined sacs and compressed peripheral cell nuclei. As the molluscum body ascends to the stratum granulosum, it loses its internal structure, becomes more homoge-

neous, and eventually sheds, leading to lobular cystic changes. Typically, the dermis shows only stromal proliferation, but about 20% of lesions exhibit inflammation with infiltration of lymphocytes, histiocytes, neutrophils, and occasional nucleated cells into necrotic epithelium. In individuals with HIV, histological lesions showed atypical features, such as hyperkeratosis and verrucous changes.[8]

HIV-positive individuals are more susceptible to molluscum contagiosum (MC) infections, often experiencing longer-lasting and more widespread disease, especially when CD4+ counts drop below 200 cells/μL.[9] While MC can also emerge during immune reconstitution after starting antiretroviral therapy, the lesions typically appear as firm, smooth, pink or whitish papules or nodules with a distinctive central pit containing a soft, cheese-like material. These lesions can appear anywhere on the body, but are frequently found in skin folds and are uncommon on the palms and soles. Lesion sizes vary from a few millimeters to over 1 centimeter, with immunocompromised individuals sometimes developing larger or atypical lesions, such as giant molluscum and follicular variations. MC lesions are usually asymptomatic however, some patients complain of tenderness or pruritus.[10] MC is typically spread through direct physical contact, including during sexual intercourse in adults, and can also be transmitted through shared items or, rarely, congenitally. The incubation period ranges from 2 to 7 weeks, but can be as long as 6 months. In most cases, the lesions resolve spontaneously within 6 to 9 months, but can persist for years.[6] Unlike healthy adults, who usually develop only a few lesions, HIV-positive individuals may experience more extensive disease with atypical features, such as predominant facial involvement, "giant" lesions (lesions > 1 cm). MC usually resolves on its own in healthy individuals, typically within 6–9 months, but may last longer.[9]

Because MC typically resolves without intervention in individuals with healthy immune systems, it's crucial to weigh the advantages and disadvantages of different management approaches with the patient's family. Common treatments like curettage and cryotherapy can cause postprocedure pain.[11] Cryotherapy, often utilizing liquid nitrogen applied for 10–15 seconds per lesion and repeated every 2–3 weeks, is a frequently used and effective treatment, especially for lesions in the perianal and perigenital areas. However, it carries risks such as pain, erosion, ulceration, and scarring with altered pigmentation.[12] Enucleation, which involves removing the central core of the lesion with instruments such as scalpels, comedo extractors and syringes, is often not tolerated well by children. Topical application of 25% podophyllin suspension, left on for 1–4 hours weekly, is another option but requires caution due to its mutagenic components and potential for skin erosion and scarring.[13] The recurrence rate of MC after treatment can be as high as 35%. The recurrence rate of MK after therapy can reach 35%.[4]

MC affects four main groups—immunocompetent children, immunocompetent young adults, sexually active adults, and immunocompromised individuals of any age.[14] These groups display different disease characteristics and prognoses, sometimes requiring different treatments. In children and young adults with healthy immune systems, the condition may resolve on its own within months or years without treatment. However, in immunocompromised patients, spontaneous resolution is unlikely, and the condition may not respond to treatment.[4] Giant molluscum contagiosum, a variation of the disease, is characterized by single or multiple lesions larger than 5 mm. While the dermoscopic features of typical molluscum contagiosum are known, those of giant lesions are not well documented, and there are no reports of multiple giant lesions in immunocompromised patients.[15]

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Author's Contribution

DEH: Conceived, designed, edited the manuscript, given final approval of the version to be published, critical revisions.

LS: Manuscript writing, final approval of the version to be published.

AW: Manuscript writing, final approval of the version to be published.

SM: Edited the manuscript, given final approval of the version to be published, critical revisions.

DPR: Manuscript writing, final approval of the version to be published.

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