

HIV-Associated Psoriasis with Considerable Clinical Improvement with The Introduction of Antiretroviral Therapy

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Citation: Duarte AA, da Silva Sá T¹, de Mendonça CC, da Silva DLF (2022) HIV-Associated Psoriasis with Considerable Clinical Improvement with The Introduction of Antiretroviral Therapy. Annal Cas Rep Rev: 337.

Received Date: 30 July, 2022; **Accepted Date:** 08 August, 2022; **Published Date:** 15 August, 2022

Abstract

Human immunodeficiency virus (HIV) infection is associated with a higher incidence of skin disorders, such as psoriasis. More than one subtype of psoriasis can be observed at the same time in people living with HIV (PLWH) and can make it harder to diagnose the problem. The introduction of antiretroviral therapy dramatically changed the natural course of both HIV and psoriasis, leading to an improvement of the skin lesions and quality of life, due to the overall improvement in the immunological response.

Keywords: Psoriasis; HIV; antiretroviral therapy.

Introduction

Human immunodeficiency virus (HIV) infection is associated with a higher incidence of skin disorders, which are often related to high morbidity and mortality [1]. The prevalence of psoriasis among people living with HIV (PLWH) in the United States is reported to be 1% to 3%, which is similar to data reported in the general population [2][3]. More than one subtype of psoriasis can be observed at the same time in PLWH and can make it harder to diagnose the problem [1].

Case report

Female, 46 years old, attended a dermatological evaluation regarding erythematous and pruritic lesions on the vulva

and intergluteal cleft. Examination showed erythematous and lichenified plaques on the vulva (Fig.1) and intergluteal sulcus, in addition to an erythematous plaque at the umbilicus and erythematous plaque with pustules on the soles of the feet (Fig. 2). Performed a biopsy of the vulva with a diagnosis of inverted psoriasis and diagnosed with pustular psoriasis due to feet lesions. She had a personal history of treated hepatitis C, non-Hodgkin's lymphoma in childhood and hidradenitis suppurativa treated with topical therapy. In view of the multiple comorbidities, it was prescribed topical corticosteroid therapy and laboratory and serology tests were requested for screening. The patient tested positive for HIV, was referred to an infectious disease specialist and HIV therapy was initiated with lamivudine, tenofovir and dolutegravir.



Figure 1: Erythematous and lichenified plaques on the vulva before introduction of antiretroviral therapy.

Figure 2: Erythematous plaque with pustules on the soles of the feet before introduction of antiretroviral therapy.

Results

After 4 months of starting antiretroviral therapy, the patient came for a new evaluation with considerable improvement of the psoriasis lesions, with resolution of the pruritus, without the appearance of new lesions of psoriasis or

hidradenitis suppurativa (Fig. 3 and 4). She brought a viral load count of 1859 and CD4+ T-cell count of 360 prior to the start of treatment. She is being followed up with the infectious disease specialist and will still perform a new CD4+ T-cell and viral load count.

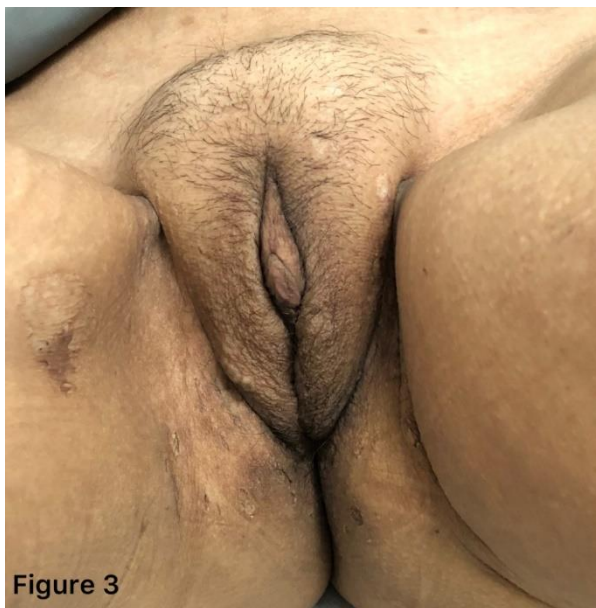


Figure 3 and 4: Clinical improvement of the skin lesions after the introduction of antiretroviral therapy

Discussion

HIV-associated psoriasis can appear at any stage of the HIV infection, but its onset seems to be related to a low CD4+ T-cell count [1][4]. Inverse psoriasis is the most frequent subtype of psoriasis in PLWH [1]. It is thought that the main driver of a psoriatic episode is the activation of a CD4+ T helper 1 (Th1) pattern. HIV infection is characterized by an increased CD8+ T-cell number, leading to an inverted CD4+/CD8+ ratio suggestive of a chronic inflammatory status, which could lead to the onset of psoriasis [1]. HIV

infection is also characterized by a progressive decrease in CD4+ T-cell count, and it could seem paradoxical that psoriasis exacerbations are more frequent in this subset of patients than the general population [1]. The introduction of the combined antiretroviral therapy dramatically changed the natural course of both HIV and psoriasis in PLWH, leading to an improvement of quality and duration of life due to the overall improvement of immunological response [1][4].

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