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Case Report

HIV Positive Patients Adalimumab use with Hidradenite Suppurative Recalcitrant: Challenges and Perspectives - @

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ABSTRACTS

Introduction: Suppurative hidradenitis is a debilitating chronic inflammatory disease with a severity variable spectrum. Increased survival of HIV + patients after the institution of antiretroviral therapy increased the chances of this population to develop chronic diseases. Treatment of hidradenitis in HIV is highly challenging, since most available therapies target some degree of immunosuppression.

Case report: We present the case of a HIV + patient with extensive hidradenitis in the gluteal region refractory to several treatments. We chose to use Adalimumab with excellent initial response, especially in pain, pruritus (itching) and anemia, with response oscillations throughout the follow-up. There was no influence of anti-TNF alpha on viral load, CD4 or any whatsoever opportunistic infection risk.

Conclusion: The patient with HIV may have peculiar aspects in the course of hidradenitis, being able to present atypical and more severe clinical pictures. Immunobiologicals are possibly a therapeutic option in this disease, but studies in this population are relatively insufficient. The use of these medications in HIV + patients does not appear to significantly alter any viral load and CD4, as in the case here presented. However, more studies are vitally necessary to establish the safety and the efficacy of biological therapy in HIV and Hidradenitis patients.

INTRODUCTION

Suppurative Hidradenitis (hereafter SH) is a chronic and cicatricial disease, which entails the follicular epithelium and an apocrine gland [1]. In some cases, this condition is challenging for treatment, particularly in HIV patients, in which the immune compromise may affect the clinical course of the disease and its therapeutic response [2]. Inhibitors of the alpha Tumor Necrosis Factor (alpha-TNF) are the treatment option in several inflammatory cells, including a hidradenitis. However, medications are rarely used within HIV patients because of a theoretical risk of reactivation or induction of infections in already immunocompromised patients. We report hitherto a case of a HIV + patient with recalcitrant Hidradenitis treated with adalimumab.

CASE REPORT

Male, 50 years, smoker. Two years ago he started with an edema, nodules and fistulas in the inguinal region, perineum and left gluteus. The lesions have evolved altogether, with drainage of purulent secretion and marked pain and pruritus as well. He has undergone several topical and systemic treatments, including soaps, topical 1% clindamycin, oral antibiotics (Cephalexin, Sulfamethoxazole + Trimetropin, Amoxicillin + Clavulanate) and retinoids (Acitretin) for 2 years.

The patient did not present clinical improvement or partial involution of the clinical picture, which made the surgical treatment impossible. It evolved with progressive worsening of both lesions and symptoms, with an important impact on life quality, in addition to persistent anemia. He presented HIV + serology two years ago in regular use of ART (Lamivudine, Zidovudine and Efavirenz) with CD4 of 688 / mm³ and undetectable viral load. After the evaluation in conjunction with the infectology, we have chosen to start off subcutaneous 160mg Adalimumab on day 0, 80mg on the 14th day and 40mg on the 28th day, with maintenance of 40mg weekly.

There was a significant improvement in pain, pruritus, secretion and the appearance of the lesion after the application of the first dose. However, following the subsequent doses, the response to pain and pruritus was maintained, but recurrence was observed with new nodules, abscesses and fistulas (Figure 1). During treatment, there was a significant worsening of the lesion appearance and purulent secretion, with left leukocytosis at the expense of neutrophils, and a course of oral antibiotic (Sulfamethoxazole + Trimethoprim) was performed for 14 days with improvement of the clinical condition. After a 9-week-treatment period, we measured CD4 and viral load again. The CD4 value was 1.111 / mm³ and the viral load remained

undetectable and there was an improvement over the anemia. The patient is being treated with Adalimumab, waiting for clinical improvement for surgical treatment.

DISCUSSION

Suppurative hidradenitis is a chronic inflammatory disease that affects the apocrine glands and the hair follicle of the axilla, inguinal region and perineum. This disorder begins with obstruction of the terminal follicular epithelium, leading to inflammation, mucopurulent discharge and scarring - with marked impairment of patients' life quality [2]. The etiology of SH remains unknown, although several triggering factors have been suggested, such as obesity, smoking, lithium, oral contraceptives and genetic components [2].

HIV might change the course of chronic diseases. Studies have shown that patients with hidradenitis and HIV may have a more severe course with atypical sites such as the face and thighs [3]. These results may be due to immune suppression in these patients, as well as endocrine disorders associated with HIV, altering the course of the disease [2]. Some of these endocrine disorders in HIV patients include: pancreatic dysfunction and diabetes, which increase the risk of infection, increased incidence of hypothyroidism, increasing the prevalence of obesity - which is as well a risk factor for developing SH and increases its severity. The increased cortisol / DHEA ratio leads to a decrease in cellular immune response and to a higher incidence of infections. The pathogenesis of these endocrinopathies includes



Figure 1: The photos show the lesions before starting treatment with adalimumab, at week 2 (after the first application) and at week 14.

direct infection of the endocrine glands by HIV or by opportunistic organisms [4].

People with SH and HIV, along with their prolonged life expectancy due to Antiretroviral Therapy (ART), are at risk of developing debilitating inflammatory disorders. Immunosuppressive therapy is the main pillar inflammatory diseases treatment. Notwithstanding, there is a limited number of cases documenting the use of inhibitors of the tumor necrosis alpha factor in this population [2].

The hidradenitis treatment is complex and entails topical clindamycin, systemic treatment with antibiotics or retinoids, surgery and laser. Surgery is an important pillar in this context and should be offered to all patients whenever possible [5]. Adjuvant therapy is essential and constitutes adequate control of pain and pruritus, management of secondary infections, weight reduction, and cessation of smoking [5]. In 2016 adalimumab was approved by the FDA for the hidradenitis suppurativa treatment [5].

The potential for inhibition of TNF- α in SH was accidentally observed in a patient undergoing an infliximab treatment with Crohn's disease in 2001 [6]. Serum and lesional TNF- α levels are significantly higher in SH patients compared to healthy control groups, which would justify its action in this disorder [7]. The dose of Adalimumab for the treatment of SH that has been shown to be effective is higher than the dose usually used in other inflammatory diseases [5]. According to Kimball, et al. [8] the recommended dose is 160mg at week 0, 80mg at week 2nd and 40 mg at week 4th, with maintenance of 40mg a week. Disease control usually occurs with 12 weeks of treatment [8].

The risk of active infections should be excluded when using biological therapy. The presence of bacteria in the SH has always been suspected, but their exact role in the disease is still not fully understood and in most cases the swabs are negative or represent the normal flora of the skin. Analysis of 9 prospective studies raised the possibility of a combination of failure in innate immunity triggered by the local microbiota of the skin. In this sense, what is currently believed is that SH would be a model of cutaneous microbioma disease and not a primary infectious disease [9]. Thus, patients with hidradenitis, possible candidates for anti-TNF alpha therapy should be screened for active infection in the same way as the general population.

With regard to the use of anti-TNF alpha in HIV patients, most of the studies comprise reports and case series. The most substantial data currently refer to the use of biologicals as chemotherapy in hematological malignancies related to HIV. Due to the risk of infectious complications with this therapy, the HIV + population is not usually included in randomized clinical trials for the use of biological [10].

Studies published until nowadays show that the use of anti-TNF alpha in HIV + patients does not produce significant changes in CD4 count and viral load [10,11]. All patients undergoing this treatment had CD4 > 200 and undetectable viral load and were not necessarily making use of ART.

No case of Adalimumab use in HIV + patients with Hidradenite has been found in the literature until now. Stephanie, et al in a systematic review evaluated 27 HIV patients using anti-TNF alpha. From these ones, two presented hidradenitis and were treated with Infliximab. Among all the evaluated patients, no significant changes were observed in CD4 and viral load, neither were observed infectious

complications [12]. Gaylis, et al in 2012 reported the largest follow-up of HIV patient with recalcitrant reactive arthritis, being treated with a TNF-alpha inhibitor. In this case, viral load and CD4 remained stable over an 11-year-use period by using Infliximab [13].

According to a recent systematic review by Fink, et al. [10] about the use of immunobiologicals in HIV patients, in the 50 years of biological therapy reported in the literature, only 03 infectious complications were identified, equivalent to the rates of the non-infected virus. Moreover, biological therapy does not appear to negatively influence viral load and CD4 [10]. The presented case is in agreement with the existing data in the literature, since the patient presented improvement of CD4, maintaining an undetectable viral load. It is also noted that although the patient presented an infectious condition during the treatment, there was a prompt response to the antibiotic therapy without any additional damage by the use of immunosuppressive therapy.

CONCLUSION

Hidradenitis presents a great life quality compromise and in HIV patients it may take place more seriously, representing a therapeutic challenge. Our study demonstrated a good initial response to Adalimumab in HIV + patients, with subsequent changes in this response throughout follow-up, without impairing CD4 and viral load levels or serious infectious complications. In addition, there seems to be more significant improvement in symptoms - pain, pruritus and discharge - as well as in laboratory tests (anemia) than in the actual appearance of the lesion. It is also worth to mention that the use of immunobiologicals does not replace surgical treatment, and this should be done whenever possible. Biological therapy is promising in the treatment of chronic inflammatory diseases and represents a therapeutic option for cases of hidradenitis; but studies with regard to HIV patients are scanty. Previously published studies have shown no significant changes in CD4 and viral load as well as demonstrate rare infectious complications. It is believed that higher quality studies are needed to ensure the efficacy and the safety of anti-TNF in hidradenitis and HIV patients.

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