

Case Report Article

Exuberant recurrent herpes labialis in immunocompromised patient – case report

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Abstract

Introduction: Herpes simplex labialis occurs by reactivation of herpes simplex virus type I, but infection with the virus type II can also lead to disease. Several factors, including exposure to intense sunlight, psychological stress or immunosuppression may trigger a recurrence. **Objective:** The purpose of this article is to report a case of herpes simplex labialis in an immunosuppressed patient. **Case report:** Male patient, 40 years of age, was admitted to the Hospital Oswaldo Cruz (Curitiba/PR) for presenting with dry cough and chest pain accompanied by fever, sweating and weight loss. The patient is a smoker, HIV positive and presented a case of pneumocystosis. The intraoral examination revealed a smooth tongue and erythematous candidiasis. Vesicular and crusted lesions were observed on the skin around the lips and vermilion. Considering these findings, diagnosis of recurrent herpes labialis was established. The patient was treated with acyclovir for 12 days when there was regression of the lesions. **Conclusion:** The dentist needs to be aware of cases of exacerbated recurrent herpes labialis that can be a strong indication of HIV infection/AIDS.

Introduction

Herpes simplex virus types 1 and 2 are the main infectious agents associated with oral and genital ulcerations. The recurrent herpes labialis occurs by reactivation of herpes simplex virus type 1 (HSV-1). However, infection with the virus type 2 (HSV-2) can also lead to herpes labialis, although this type rarely causes a recurrence of the disease [9]. HSV-1 disseminates primarily through contact with saliva or active perioral lesions, while HSV-2 is transmitted through sexual contact. The first exposure of an individual without antibodies against the virus is called primary infection. This infection typically occurs in young individuals. However, 80% of all adolescents have already present antibody [11-13].

Primary HSV infection is often asymptomatic. However, some individuals often develop herpetic gingivostomatitis. This condition is characterized by fever and vesicles followed by ulcers of the oral mucosa, tongue, and lips [19]. After the first contact, the virus establishes a life-long latency in sensory nerve ganglia, being more frequent the trigeminal ganglion [13]. A variety of factors (exposure to intense sunlight, fatigue, psychological stress or immunosuppression) can precipitate a recurrence by reactivation of the virus migrates to the epithelial cells through the affected nerve, causing recurrent herpes [12].

Prodromal signs and symptoms such as pain, burning, itching, tingling, erythema and localized heat epithelium involved appear six to 24 hours before the development of lesions [11]. The clinical course progresses by the development of blisters, pustules, ulceration and, finally, there is the formation of crusts. This condition often occurs in the same anatomical site, especially the vermillion of the upper or lower lip [5].

Maximum viral levels occur within the first 24 hours after the infection onset when most of the lesions are in the vesicular stage. When level of virus begins to decline, the lesions are converted to ulcerations covered by crusts. Complete healing without scarring usually occurs between 7 and 10 days [4]. The recurrent herpes labialis affects 16% to 38% of the population [5]. In HIV-positive patients, it is the third most prevalent oral infection, affecting 10.2% of patients. In this case, the episodes are usually longer and more severe, potentially involving several areas of the oral mucosa and extending through the skin of the face [6]. This article aims to report a case of a manifestation of severe of recurrent herpes labialis in a patient with HIV.

Case report

Male patient, 40 years old, retired, was admitted to the Hospital Oswaldo Cruz (Curitiba/

PR) presenting with cough and pain in the hemi thorax for approximately five days. Moreover, he had fever, sweating and weight loss. The patient is HIV positive and had the diagnosis of this infection in 1999. During anamnesis, he revealed a history of pulmonary tuberculosis and tuberculosis in the region of the hip bone left.

The complete blood count showed low values for red cells. On the other hand, the leukocyte count showed a large number of rods, and segmented neutrophils. Platelet count and erythrocyte sedimentation rate were elevated.

Clinical signs and medical examination confirmed the diagnosis of pneumocystosis. The oral examination revealed the presence of caries lesions, residual roots, tooth fractures, smooth tongue, and buccal mucosa erythematous areas suggestive of erythematous candidiasis. The patient had multiple lesions with a vesicular and other crusty skin around the lips and vermillion (figures 1 and 2). The patient reported he had felt a strong burning sensation in the skin before the vesicular lesions arise. In addition, he reported that similar lesions had appeared previously. The diagnosis of recurrent herpes labialis was established based on clinical history and appearance of the lesions.

The pneumocystosis was treated with Clindamycin 600mg (intravenous in intervals of 8 hours for 21 days). The lesions of recurrent herpes labialis were treated through acyclovir cream (3 times daily for 7 days) and oral acyclovir (400 mg 3 times daily for 7 days). One week after initiation of treatment, there was a significant improvement of the lesions (figures 3 and 4). Five days later, the lesions disappeared without scarring and the patient was discharged from hospital. Moreover, the treatment for the control of HIV infection was reestablished by the introduction of highly active antiretroviral therapy (HAART).



Figure 1 - Multiple vesicular lesions in the vermillion of the upper and lower lips



Figure 2 - Detail of the vesicles in the lower lip



Figure 3 - Clinical appearance of the lips after a week of treatment with acyclovir



Figure 4 - Vermilion lip after one week of treatment with acyclovir

Discussion

HIV infection is commonly associated with activation and dissemination of several other viral pathogens, including HSV, CMV, HHV8, EBV, VZV, and HPV, which behave as opportunistic agents and cause various diseases in immunosuppressed hosts [8, 11]. The frequency and severity of diseases

caused by viruses in patients with HIV infection are usually exacerbated. This is due mainly to dysfunction of both the adaptive and innate immune responses to viral pathogens [17].

HSV is among a spectrum of viruses known to affect the upper aerodigestive tract. Gingivostomatitis and pharyngitis are the most common clinical manifestations of first-episode HSV infection, whereas recurrent herpes labialis is the most common clinical manifestation of viral reactivation [15].

Oral infections with HSV type 1 and 2 are important, common, and worldwide in distribution [10]. Ninety-eight percent of HSV associated lesions are caused by reactivated disease and tend to be characterized by large, very painful ulcerative lesions throughout the mouth [1, 16]. In this case report, several lesions of recurrent herpes labialis were diagnosed around the lips of an immunosuppressed patient. Some cases of exuberant oral infection are described in the literature, specially, in patients with HIV infection [1, 5, 8, 15, 16].

Several triggers may reactivate the HSV, such as: fatigue, fever, ultraviolet radiation, chapping, abrasion, menses, skin trauma, and immunosuppression [3, 7]. Patients with significantly higher viral load and lower CD4+ count are more likely to develop oral lesions. In this case report, the low CD4 count should have been responsible for the reactivation of HSV, because the patient had a CD4 count = 105 cells/ μ L. Previously, Bohn *et al.* [1] reported a case of oral exuberant herpes labialis in a male patient with high viral load and low CD4+ count.

The diagnosis of HSV infection is usually made by the appearance of the lesions and the patient's history. In general, immunosuppressed individuals can exhibit exacerbated oral and labialis lesions. If the pattern of the lesions is not specific to HSV, its diagnosis can be made using other techniques, such as: viral culture, PCR, serology, direct fluorescent antibody testing, or Tzanck test [14, 19, 20]. In this case report, the clinic appearance of lesions around the lips and the symptomatology were sufficient to establish the diagnosis of HSV infection.

Herpes labialis has a predictable clinical course that usually progresses to auto-regression. In HIV-infected patients, the lesions of herpes labialis are more exacerbated, painful and heal more slowly. Thus, a combination of topical and systemic antiviral drugs was established for the treatment of the patient. This same therapeutic regimen was successfully used to treat a patient with exuberant recurrent herpes labialis by Bohn *et al.* [1] Acyclovir, Valacyclovir hydrochloride, and Famcyclovir are three antiviral drugs routinely used to treat symptomatic HSV infections [2].

Centers for Disease Control and Prevention – CDC has recommended the following treatment regimens for episodes of HSV-1 and HSV-2 infections [18]:

- i) Acyclovir 400mg orally three times a day for 7–10 days or;
- ii) Acyclovir 200mg orally five times a day for 7–10 days or;
- iii) Famciclovir 250mg orally three times a day for 7–10 days;
- iv) Valacyclovir 1g orally twice a day for 7–10 days.

Treatment might be extended if healing is incomplete after 10 days of therapy. Intravenous (IV) acyclovir therapy should be provided for patients who have severe HSV disease or complications that necessitate hospitalization (e.g., disseminated infection, pneumonitis, or hepatitis) or CNS complications (e.g., meningoencephalitis). The recommended regimen is acyclovir 5-10 mg/kg IV every 8 hours for 2-7 days or until clinical improvement is observed, followed by oral antiviral therapy to complete at least 10 days of total therapy [2]. Although the patient in this case report was hospitalized with pneumocystosis, it was not necessary to use intravenous acyclovir, because lesions of herpes labialis repaired satisfactorily when treated with oral medication.

Although there are several antiviral drugs, acyclovir therapy has proved safe for the long-term suppression of recurrent genital herpes infections and recurrent herpes labialis. Both topical and oral treatment can contribute to the prevention of herpes labialis [13]. Treatment with antiviral shortens the duration of lesions. However, there is no definitive cure and recurrence may occur even after treatment. Oral health providers need to be aware of cases of recurrent herpes labialis exacerbated that can be a strong indication of HIV infection / AIDS.

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