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# Systemic Management Primary Herpetic Gingivostomatitis: Presentation of Two Cases

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## **ABSTRACT**

Primary herpetic gingivostomatitis is a viral contagious disease which is caused by the herpes simplex virus type 1 HSV-1. It is principally observed in little children, being probably the first exposure of the child with the virus. This condition is very common however it is still very painful and to be taken care of. The treatment generally consists of a management of the virus at a systemic level, complementing with other palliative measures to decrease the symptoms and the possibility of a secondary infection.

The objective of this article is to present two cases of primary herpetic gingivostomatitis in the gums, hard palate, lip semi-mucosa and tongue. The treatment used consisted of systemic management with acyclovir and acetaminophen, complementing with oral rehydration salts, liquid diet and hospital observation, obtaining very favorable results in a short amount of time.

**Keywords:** Acyclovir, Dysphagia, Herpetic Gingivostomatitis, Herpes Simples, Virus.

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# INTRODUCTION

Herpetic gingivostomatitis is a contagious disease caused by the herpes simplex virus type 1 HSV-1.¹ It is very common in patients under 10 years old, even though it also affects in a lower frequency both teenagers and adults. Its transmission is through direct contact with lesions or through saliva.² The clinical characteristics are preceded by a prodromal state which includes: fever, general discomfort, asthenia, lymphadenopathies in some cases, dysphagia and irritability.³

Clinically the most frequently found lesions are: very specific buccal ulcers, small, round, preceded by vesicles which, in most cases, are not perceived, because they break down a few hours after they apparition; they are principally localized in the keratinized buccal mucosa (gum, hard palate and lingual dorsum).<sup>4</sup>

In some cases the immunologic state of the patient plays an important role, because the lesions can spread and complicate the clinical picture and management, it is necessary to investigate about the immunosuppression in any patient with an infection by herpes simplex.<sup>5</sup> For the management of herpetic gingivostomatitis, the most used antivirals are: acyclovir, famciclovir, and valacyclovir.<sup>6</sup>

# CASE PRESENTATION CASE 1

Female 7-year-old patient, without relevant medical records, attends the consultation for painful symptoms and dysphagia when eating.

During the stomatological exam multiple ulcers, edema and generalized erythema with pseudomembranous areas in the gums, extending to the hard palate and both upper and lower lip semi-mucosa (Fig 1). Also, gingivitis associated to dental plaque is observed, due to the difficulty to perform proper tooth brushing. Other signs and symptoms presented are cervical adenopathy, fever, general discomfort, headache and dysphagia of 24hours of evolution.

### **Systemic Management**

Acyclovir suspension 15 mg/kg, 5 times a day for 7 days, combined with acetaminophen suspension 15m mg/kg, 3 times a day for 3 days, oral rehydration salts, rinses with sodium bicarbonate 3 or 4 times a day to control the acidic pH. Control at 4 and 15 days show a favorable evolution of the patient (Fig. 2a,2b). During the dental consultation, a prophylaxis is performed and recommendations of oral hygiene are given.







Fig 1: Initial photograph. Presence of ulcerative and pseudomembranous lesions in the gums, hard palate and lip semi-mucosa.

Fig (2a) Control after 4 days of treatment. Decrease of the lesions in the hard palate and lip semi-mucosa. (2b) Control after 15 days of treatment. Total resolution of the ulcerative lesions and a decrease of the gingivitis.

#### CASE 2

Female 6-year-old patient, from a rural area, who attends the consultation because of a fever and difficulty to swallow. Clinically a generalized gingival inflammation and multiple vesicles and ulcerations in the lingual dorsum, also in the left lateral side of the tongue multiple ulcerations with pseudomembranous areas are

showing (Fig 3a,3b). Also presents sublingual and submandibular adenopathy, fever and dysphagia of 3 days of evolution.

The same previously mentioned management protocol is applied with oral acyclovir, acetaminophen, oral rehydration salts and rinses with sodium bicarbonate. The favorable evolution of the patient is confirmed at the 7th day control of the treatment.





Fig (3a) Multiple erythematous and ulcerative lesions are visualized in the lingual dorsum. (3b) Presence of irregular ulcerations in the lateral side of the tongue.

### **DISCUSSION**

Herpetic gingivostomatitis is still considered as a characteristic infection of the childhood, prevalent in children under 10 years old. No reference that related this pathology with racial differences or the socioeconomic state of the patients was found. Direct contact with the lesions, especially saliva, is considered the principal transmission source of the disease from a host to another. In some patients the primoinfection goes unnoticed, because the symptoms may vary. 8

The recurrence of the lesions is very common, due to the migration of the virus in a latent form in the trigeminal nerve, which is easily detectable by the cervical adenopathy manifested by the patients during the active period of the infection.<sup>9</sup>

Despite the tendency of treating herpetic gingivostomatitis in a localized form in order to improve the discomfort in the patients, the treatment with acyclovir has demonstrated being effective in

most cases, diminishing the lesions and the general discomfort in the patients, turning into the antiviral drug of choice. 10 Complementing with painkillers and oral rehydration proved being a favorable combined therapy in both of the presented cases.

### **CONCLUSION**

The management of herpetic gingivostomatitis with oral antivirals, especially acyclovir, complementing with other palliative therapies at a topic or local level has demonstrated great results by decreasing the symptomatic period and disappearing the lesions.

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