Journal of Advanced Medical and Dental Sciences Research

@Society of Scientific Research and Studies

Journal home page: www.jamdsr.com doi: 10.21276/jamdsr

(e) ISSN Online: 2321-9599; (p) ISSN Print: 2348-6805

Case Report

Primary Herpetic Gingivostomatitis: A Case Report

Anjali Singh[1], SeemaThakur[2] , Cheranjeevi Jayam[3]

[1]Junior Resident, [2]Professor and Head, [3]Assistant Professor, Department of Pediatric and Preventive Dentistry, H.P. Govt. Dental College and Hospital, Himachal Pradesh, India

***ABSTRACT*:**
Herpetic infections commonly affect the dental profession's anatomical area of responsibility and the diagnosis and management of such infections fall in the purview of oral healthcare providers. Primary herpetic gingivostomatitis is a common paediatric infection and the causative organism in 90% of cases is herpes simplex virus type 1, with complications that range from indolent cold sores to dehydration and even lifethreatening encephalitis. We here, present a care report of 6 year old female patient presenting with primary herpetic gingivostomatitis.

Key words: Pain, Primary herpetic gingivostomatitis, Virus.

Received: 21 January 2018 Revised: 24 February 2018 Accepted: 26 February 2018

Corresponding Author: Dr. Anjali Singh, Junior Resident, Department of Pediatric and Preventive Dentistry, H.P. Govt. Dental College and Hospital, Himachal Pradesh, India

This article may be cited as: Singh A, Thakur S, Jayam C. Primary Herpetic Gingivostomatitis: A Case Report. J Adv Med Dent Scie Res 2018;6(4):127-129.

INTRODUCTION

In majority of the cases that are infected with Herpes Simplex in childhood, usually suffer a mild febrile illness of no consequence. Later some individuals suffer recurrent infections which appear as cold sores on the lip while others intermittently shed virus in the oro-pharygeal secretions.[1, 2] Adults uninfected in childhood may be exposed to viruses for example by kissing and develop an acute primary herpes with fever and gingivo-stomatitis occasionally requiring hospital admission. Awareness of this condition is required for diagnosis after which the majority of patients seen in otolaryngological practice need only supportive therapy, explanation and reassurance.[3] PHG is more commonly reported in children and rarely in adults. Hence; in the present article, we presented an acute episode of primary herpetic gingivostomatitis in a 6-year-old female patient.

CASE REPORT

A 6 year old female patient reported to the department of pediatric and preventive dentistry of the H.P.G.D.C, Shimla, with the chief complaint of pain and mobility in her lower anterior teeth region. Patients underwent extraction of lower anterior teeth as a part of treatment. The patients came back after 2 days with ulceration of lower lip and ventral side of the tongue as shown in **Figure 1** and **Figure 2**.

Figure 1: Gingival lesion

Figure 2: Tongue lesion

Medical history showed that she was suffering from fever and generalised weakness. She had not taken any medical or dental treatment for the problem. Family history was unremarkable. On intraoral examination, gingiva appeared fiery red in colour and multiple vesicles were present on the attached mucosa. On the basis of clinical history and findings, a final diagnosis of Primary herpetic gingivostomatitis was given. We started the treatment immediately and the patient responded well showing healing of lesions after 2 weeks.

Differential diagnosis

- Recurrent herpes simplex infection
- Major apthous stomatitis
- Erythema multiformae

Treatment

The patient was instructed to eat nutritious, soft, blend diet and the following medications were prescribed:

- Acyclovir 200 mg five times a day, to be rinsed and swallowed.
- Acetaminophen: 10-15 mg /kg / dose every 4-6 hrs as needed (maximum 90 mg/kg/24hrs) were given to address pain and fever.
- Application of mild anesthetics [dyclonine hydrochloride (0.5%)] before mealtime

DISCUSSION

Acute (primary) herpetic gingivostomatitis (AHGS) typically affects children, but rarely, this infection also occurs in adults. Because of the limited symptoms, a dentist may be the first health care practitioner consulted. The severity of signs and symptoms may be attributable to the virulence of the specific strain of HSV and the host's immune response. Once HSV penetrates the host's epithelial cells, viral replication occurs. The newly formed HSV come into contact with sensory nerve endings and are transported to the corresponding ganglion. In oral labial herpes, the most common site is the trigeminal ganglion. Here the viral DNA enters the ganglion, where it becomes inactive or latent. The incubation period is the period during which viral replication and transport to the sensory ganglion occur. For HSV, this period is variable and can range from a few days to 3 weeks, but in most cases it is approximately 1 week.[4- 6]

In the present study, we presented the case report of 6 year old female patients with presence of PHG (**Figure 1, Figure 2**). From the clinical characteristics presented by the lesions, the possibility of these being aphthous lesions was discarded. The differential diagnosis includes infection by other microorganisms, particularly from the coxsackie group; streptococcal pharyngitis; erythema multiform; necrotizing ulcerative gingivitis; and aphthous stomatitis.

Primary acute herpetic gingivostomatitis is the most common pattern of symptomatic primary herpetic infection, and in the majority of cases, it is related to HSV-1 infection. It is more commonly observed in children in the age bracket from 1 to 5 years of age, and rarely in adolescents and young adults, such as the patient described in the present clinical case. According to one of the previous authors, there is 1 peak of incidence, from 6 months to 5 years. It rarely affects children under the age of six months, who apparently present circulating antibodies transmitted by the mother, and adults. The greater occurrence in children may be justified by the wide dissemination of the virus and due to early exposure to it.[7, 8]

Turton M reported a case of Symptomatic Primary Herpetic Gingivostomatitis. A nine year old, female presented with a main complaint of difficulty eating due to pain associated with multiple shallow oval oral ulcers. PHG has to be differentiated clinically from acute necrotising ulcerative gingivitis, recurrent HSV infection, herpangia, aphtous ulcers, erythema multiforme, teething, allergic stomatitis and ulcers due to chemotherapy. Management of PHG is palliative and supportive, with symptomatic relief that primarily involves pain management and oral fluids to prevent dehydration until the viral infection subsides, prevention of dehydration, and shortening the duration of lesions even though orolabial herpetic infections are usually self-limiting. The aim of their case study was to highlight a symptomatic case of PHG which required an astute diagnosis and a comprehensive treatment plan with emphasises on the importance for oral health clinicians to have a holistic approach to management of oral disease.[9]

Herpetic infection, both acute and recurrent, is a self-limiting disease with a healing period of 1 to 2 weeks. Complications are rare and include keratoconjunctivitis, esophagitis, pneumonitis, meningitis and encephalitis. The most common mode of transmission of HSV is the saliva of the carriers. Infection on the hands of health care personnel from patients shedding HSV may result in herpetic whitlow.[10- 12] Transmission of HSV-2 is usually by sexual contact. Both types 1 and 2 may be transmitted to various sites by oral-genital, oral-anal or anal-genital contact. Primary infection occurs in childhood from infected saliva or herpetic lesions. Reactivation can occur at any time and may be triggered by immunosuppression, stress, trauma, ultraviolet irradiation, or fever. Recurrences are generally less severe than the primary infection and severity and frequency tend to diminish with time.[13, 14]

In conclusion, from the case described, the prospect of the incidence of PHG in a paediatric patient becomes evident, and the pedodontist must be alert to the clinical findings, considering that no matter how unlikely a diagnostic hypothesis age may be, it cannot be the only datum taken into consideration for arriving at the final diagnosis.

REFERENCES

1. GS Liang, GL Daikos, U Serfling, WY Zhu, Pecoraro M, CL Leonardi, et al. An evaluation of oral ulcers in patients with AIDS and AIDS-related complex. J Am AcadDermatol. 1993;29(4):563–568.
2. PH Itin, S Lautenschlager. Viral lesions of the mouth in HIV-infected patients. Dermatology. 1997;194(1):1–7.

3. H Faden. Management of primary herpetic gingivostomatitis in young children. PediatrEmerg Care. 2006;22(4):268–269.
4. Lawall MA, Almeida JFA, Bosco JMD, et al. Primary herpetic gingivostomatitis in adult: case report. RevistaOdontoCiência 2005;2013:191–4
5. Chandrasekar PH. Identification and treatment of herpes lesions. Adv Wound Care 1999;2013:254–62
6. Kolokotronis A, Doumas S. Herpes simplex virus infection, with particular reference to the progression and complications of primary herpetic gingivostomatitis. ClinMicrobiol Infect 2006;2013:202–11
7. A Kolokotronis, S Doumas. Herpes simplex virus infection, with particular reference to the progression and complications of primary herpetic gingivostomatitis. ClinMicrobiol Infect. 2006;12(3):202–211.
8. TK Gilmour, PA Meyer, E Rytina, PM Todd. Antiepiligrin (laminin 5) cicatricialpemphigoid complicated and exacerbated by herpes simplex virus type 2 infection. Australas J Dermatol. 2001;42(4):271–274.
9. Turton M. A Case Report on Symptomatic Primary Herpetic Gingivostomatitis. J Dent Health Oral DisordTher. 2017; 8(8): 00317. DOI: 10.15406/jdhodt.2017.08.00317
10. Quinn JP, Dalziel RG, Nash AA. Herpes virus latency in sensory ganglia—a comparison with endogenous neuronal gene expression. ProgNeurobiol 2000;2013:167–79 12
11. Miller CS, Danaher RJ. Asymptomatic shedding of herpes simplex virus (HSV) in the oral cavity. Oral Surg Oral Med Oral Pathol Oral RadiolEndod 2008;2013:43–50\
12. MS Greenberg. Ulcerative vesicular and bullous lesions. In: Greeberg MS, Glick M, (Editors). Burket's Oral Medicine, Diagnosis and Treatment, 10th ed.: BC Decker Inc.; USA. 2003:68–71.
13. J Amir, L Harel, Z Smetana, I Varsano. The natural history of primary herpes simplex type 1 gingivostomatitis in children. PediatrDermatol. 1999;16(4):259–263.
14. Regezi JA, Sciubba JJ. Oral pathology-clinical pathologic correlations. Philadelphia: Saunders, 2003
15. Arduino PG, Porter SR. Herpes simplex virus type 1 infection: overview on relevant clinico-pathological features. J Oral Pathol Med 2008;2013:107–21

Source of support: Nil **Conflict of interest:** None declared