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Herpetic Gingivostomatitis – An Acute Episode of 20y Old Female Patient- A Case Report

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ABSTRACT
Herpetic gingivostomatitis is the manifestation of herpes simplex virus type 1 (HSV-1) characterized by high-grade fever and painful oral lesions that occurs in children from 6 months to 5 years and may also occurs in adults. HSV-1 and HSV-2 have three biological properties that are neurovirulence, latency and reactivation. The symptoms of herpetic gingivostomatitis are Prodrome of fever, anorexia, irritability, the development of painful oral lesions associated with malaise, lethargy and cervical or submandibular lymphadenopathy.
The initial sign of herpetic gingivostomatitis is hyperemia of the oral and perioral mucosa, followed by rapidly spreading vesicular lesions on the gingiva, palate, buccal, and labial mucosa. In this study, we aim to discuss the acute episode of primary herpetic gingivostomatitis in a 20-year-old female patient.
Keywords: Herpetic gingivostomatitis, HSV, Antiviral drugs

I. INTRODUCTION

Herpes simplex virus (HSV) is a double-stranded DNA virus belonging to the human herpes virus family and classified as aneight different forms. HSV-1 induces more oral infections(1). Symptoms are unilateral, mild, and self-limiting, except in immunocompromised patients and newborns (2). It can be classified as Herpes simplex viruses type 1 (HSV-1) and HSV-2. HSV-1 is commonlyinfected with orolabial meanwhile HSV-2 is commonlyinfected with genital disease. Oral and genital contact may allow either serotype to cause oral or genital lesions(1). Primary herpetic gingivostomatitis are have several prodromal symptoms like fever, anorexia, irritability, malaise, and headache. Intraorally, there is severe stomatitis with presence of several pinpoint vesicles that rupture to give raised ulcers. These ulcers are surrounded by a yellow grey membrane. There is presence of linear gingival erythema of gums, coated tongue, presence of plaque due to poor oral hygiene which leads to halitosis and drooling of saliva(3). Manifestations of HSV infection include vesicular rash, esophagitis, keratitis, and pneumonia. Although hepatitis caused by HSV infection is rare, accounting for about 1% of cases of acute liver failure (ALF) in adults, it can be fatal if left untreated (4).

II. CASE REPORT

Ms. Renuka of 20/F reported to the private clinic (Toothzy Multispeciality Dental Clinic, Gingee) with the chief complaint of painful ulcers under the tongue for the past 2 days. The patient was normal before 2 days. The patient has been given H/O malaise for the past 2 days. Later she developed painful ulcers under the tongue. On eliciting history initially, she noticed a single ulcer under the tongue, which was small in size and later it progressed to multiple in numbers with an increase in size. The pain is acute, intermittent, throbbing type, non-radiating, aggravates on eating hot and spicy food, and relieves on rest.

On extraoral examination, Presence of palpable right and left submandibular lymph nodes which are one in number on both sides, of size approximately 0.5 X 0.5 cm, mobile, tender, and soft in consistency.

On intra-oral examination, an inspection of the floor of the mouth, labial and buccal mucosa, Presence of multiple vesicles, shallow ulcers of size approximately 0.5 cm, covered by the whitish fibrin, surrounded by the erythematous area and on palpation All the above inspection findings are confirmed concerning site, size, shape, and extent. On palpation, it is tender, non-indurated. Gingiva shows the presence of linear marginal erythema in the maxillary and mandibular anterior gingiva with rolled-out margin, and blunt interdental papilla. Gingival recession is evident in relation to 31. it is

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tender, bleeding on probing in the maxillary and mandibular anterior gingiva. **Based on history and clinical findings provisionally diagnosed as Primary herpetic gingivostomatitis.** The patient was advised for blood investigations and also for biopsy. Exfoliative cytology was taken on the floor of the mouth. It shows the normal surface epithelium with no evidence of inflammatory cells. The patient was under conservative management for 15 days and the patient was advised to restrict the hot and spicy foods. Also advised for antiviral drugs.

Tab. Ziovir 200 mg 1-1-1 - 5 days
Tab. Aceclofenac100 mg 1-0-1 - 3 days
Tab. B Complex 1-0-0 - 15 days
Lignocaine gel is to be applied 3-4 times a day. The patient was reviewed after 5 days followed by after 10 days and Healing was satisfactory.

DIFFERENTIAL DIAGNOSIS

Regarding the clinical findings of the disease such as fever, anorexia, irritability, malaise, headache, presence of severe stomatitis, several pinpoint vesicles, and linear gingival erythema of gums. Herpetic gingivostomatitis can be differentiallydiagnosed as Recurrent herpes simplex infection, Recurrent aphthous stomatitis, Stevens Johnson syndrome(1), Hand foot mouth disease, Herpangina, chickenpox (4).

OUTCOME AND FOLLOW-UP

The patient cooperation well to the treatment and healing was satisfactoryafter treatment(1).

III. DISCUSSION

In more than 90% of PHG cases, the causative organism is herpes simplex virus type I and occasionally herpes simplex virus type II (6). These are responsible for primary and recurrent mucocutaneous herpetic infections. HSV-1 is commonly ainfected with orolabial infections, while HSV-2 is commonly infectedwith genital disease. Oral and genital contact may allow either serotype to cause oral or genital lesions. Both of HSV type 1 and type 2 having a similar structure, but differs from its antigenicity, although HSV-2 is reputed to be of greater virulence(7). Primary herpetic gingivostomatitis can include oral as well as extraoral lesions, swollen and bleeding gums, and symptoms such as pain, fever, irritability, malaise, headache, and upper respiratory tract infection(8). The oral lesions in PHG may start as vesicles on the tongue and the buccal and gingival mucosa, which rapidly rupture to become ulcers. The ulcers, which are usually 1 to 3 mm in size, may subsequently enlarge to form a large ulcerated area covered by a yellowish-grey membrane. In some patients, especially adults, the gingivae (gums) may also become swollen. Healing generally occurs without scarring. (9) The majority of primary infections are asymptomatic or very mild that it goes unobserved. In symptomatic patients, the incubation period for PHG is 2-20 days. (6) Recurrent herpetic infection is usually associated with prodromal symptoms of tingling and burning sensation and recurs periodically usually at the vermilion border of the lip, with intraoral lesions seen on the gingiva, palate, and alveolar mucosa(10) AHGS is usually benignan adulthood and self-healing within 10-14 days, therefore, treatment is not always given to patients with immunocompetent conditions, and adjunctive measures may be undertaken to minimize the severity of symptoms(11)

The diagnosis of AHG is usuallydone by clinical presentation and history so laboratory investigation is rarely needed in this case. Presence of lymphadenopathy features are seen only in patients aged 18 to 42 years(12).The diagnosis can be confirmed via laboratory tests: Serological assays (anti-HSV IgM and IgG), the Tzanck test, and immunofluorescence, but the culture of viral isolates is still considered to be the gold standard(8) Primary line treatments include the provision of nutritional supplements, encouraging patients to rest, circumventing the use of tobacco products and alcohol, consumption of a balanced soft diet, and ensuring adequate fluid intake. Systemic analgesics can be given to overcome the commonly accompanying pain and malaise(13) Medications such as multivitamins and minerals that contain groups of vit B,vitamin C, vitamin E, zinc and Lithium that aims to improve the immune system. However, nutritional supplements do not only improve the immune system but also can accelerate the cure of herpes lesions. Vitamin C (Ascorbic acid) has been shown to inactivate a wide range of viruses in vitro, including Herpes simplex virus, and to enhance immune function. Zinc ions have been shown to inhibit the replication of HSV-1 and -2 in vitro. Topical application of vitamin E can help in relieving pain and will aid in the healing of oral herpetic lesions(10) For oral infection, the use of antiseptics such as chlorhexidine gluconate or a tetracycline rinse can lower secondary infections. The provision of antiviral therapy (acyclovir) given 72 hours after the onset of prodromalsymptoms can accelerate the resolution of viral shedding and healing time, and it reduces pain. Acyclovir is

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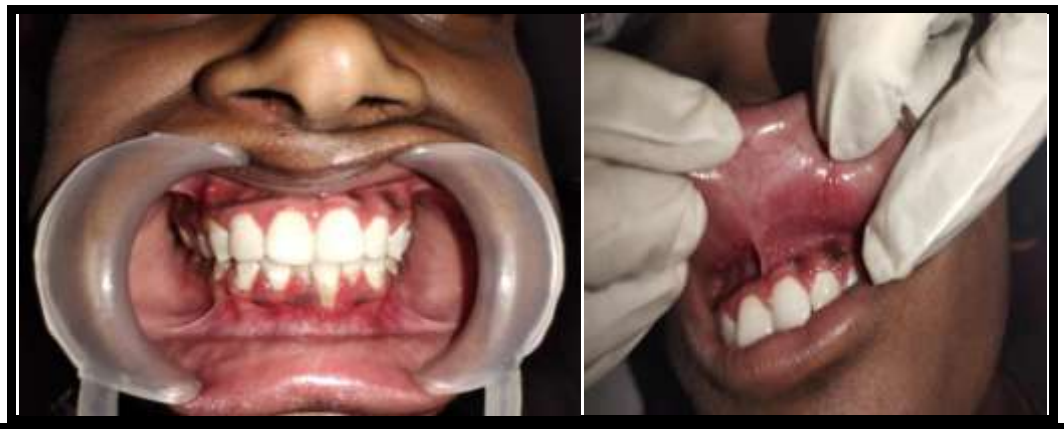
active against herpes viruses but does not eliminate them completely so that early administration of antiviral therapy is necessary for this disease(14). Ideally, treatment should begin before the lesion is visible to clinically .

IV. CONCLUSION

PHG in some cases is asymptomatic and even goes unnoticed however, in symptomatic cases, it can be a very devitalizing condition. It is vital for oral health clinicians to be apprised of the indicative signs and symptoms of this condition and not to demented it with other similar conditions on presentation. A holistic approach to the management of oral disease must be attached to it, with the vision that it can bring about positive changes in the person's oral health status, awareness, andbehavior (5).

PICTURES
AT FIRST VISIT



AT FIRST REVIEW (5 DAYS)

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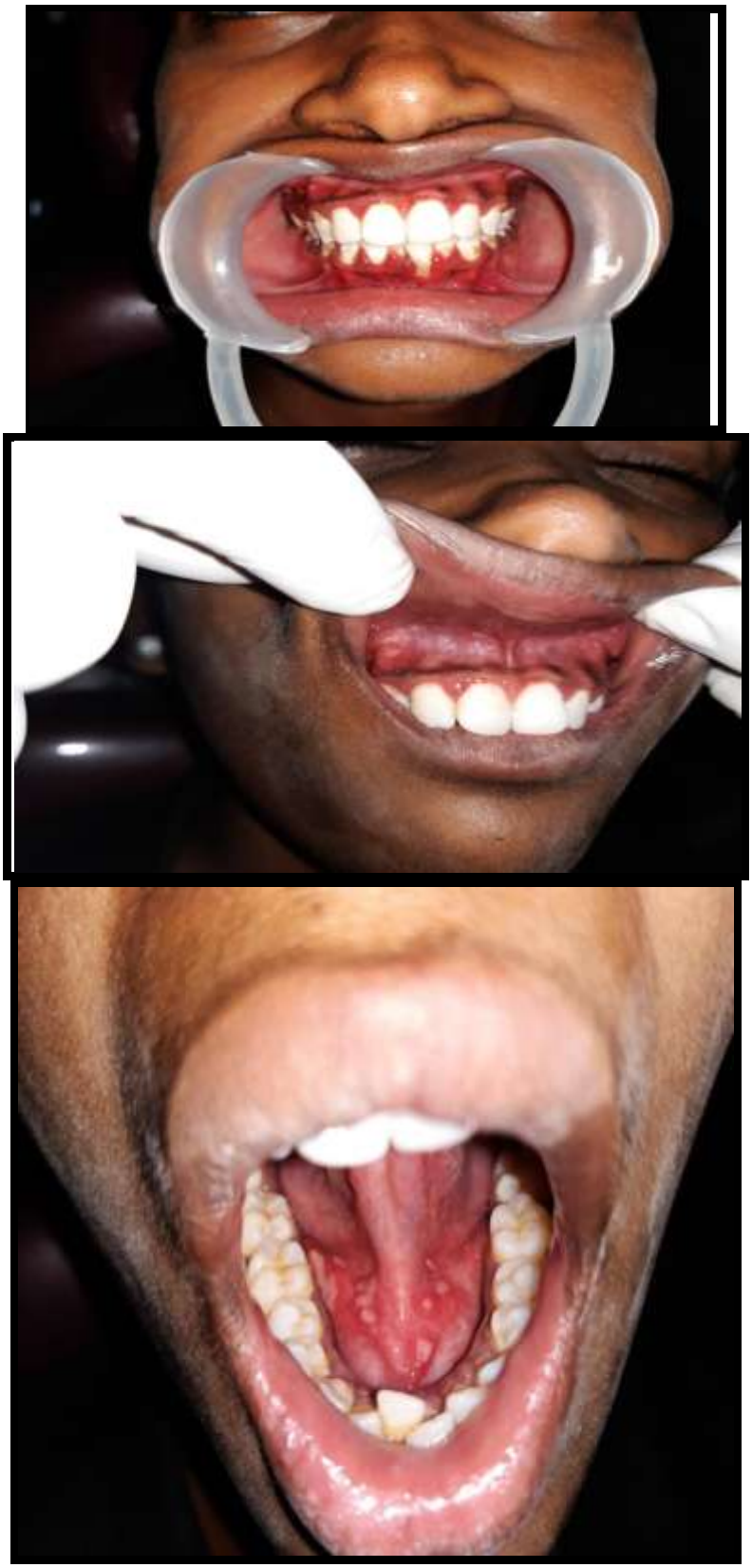

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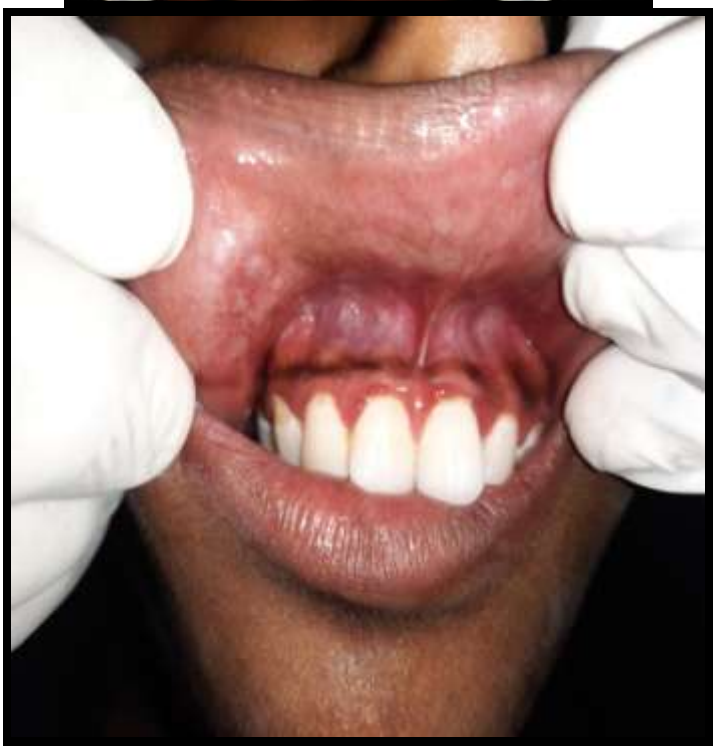
AT SECOND REVIEW (10 DAYS)



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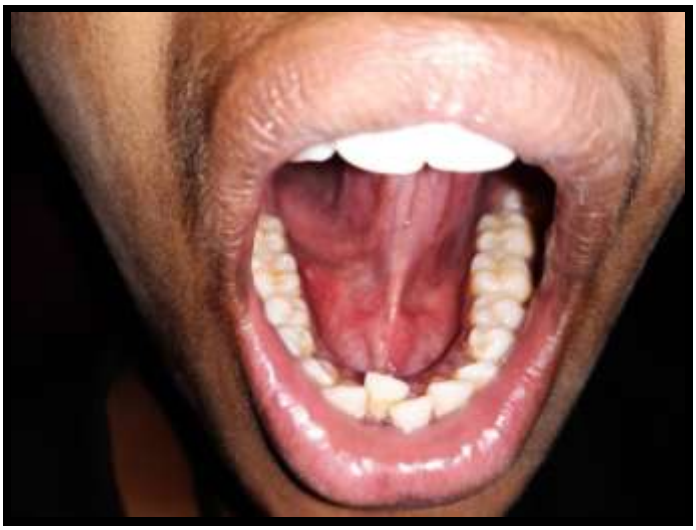

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