



## Case Report

# Ignored lesion of herpes labialis- Case report

Shaik Ali Hassan<sup>1,\*</sup>, Sumit Bhateja<sup>1</sup>, Geetika Arora<sup>2</sup>

<sup>1</sup>Manav Rachna Dental College, Faridabad, Haryana, India

<sup>2</sup>Inderprastha Dental College & Hospita, Ghaziabad, Uttar Pradesh, India



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### ABSTRACT

It is contagious for the previously uninfected individuals and those with compromised immune systems such as HIV-infected individuals and those undergoing chemotherapy. Herpes labialis infection constitutes a serious risk to the dental team in the form of herpes whitlow and herpes keratitis during the treatment of patients with active lesions in the absence of proper infection control practices

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## 1. Introduction

Herpes labialis, also known as the also known as fever blisters or cold sores, is a recurrent herpes simplex infection that usually affects the lips or the adjacent skin. It is one of the most prevalent and clinically obvious viral diseases presenting as bothersome, large, painful, and disfiguring lesions interfering with social activity and causing psychological problems.<sup>1</sup> It is one of most common infective vesiculo-ulcerative oral lesions with distressing and debilitating characteristics worldwide. It is contagious for the previously uninfected individuals and those with compromised immune systems such as HIV-infected individuals and those undergoing chemotherapy. Herpes labialis infection constitutes a serious risk to the dental team in the form of herpes whitlow and herpes keratitis during the treatment of patients with active lesions in the absence of proper infection control practices. From initial manifestation to complete healing between 7-10 days, occasionally 14 days, it has five clinical stages: Prodromal, blister, weeping, scabbing, and healing.<sup>2</sup> In most of cases

this is missed and interpreted as a pimple or any insect bite. The clinical diagnosis of herpes labialis is based on case-specific historical findings, characteristic clinical appearance, and the location of the lesions.

## 2. Case Report

A 24year old male patient (Figure 1) visited the department of Oral Medicine and Radiology with the chief complaint of ulcers around the mouth since 5-6 days, also gives a history slight tingling or itching sensation over the affected area. Patient reveale history of similar lesions in past with respect to fever. Patient presents with encrustations over and around left side of lips since 5-6 days. clusters of ruptured vesicles of size 1-4mm covered with brownish crust. They were tender on palpation. No regional lymphadenopathy was present. Based on history and examination clinical diagnosis of herpes labialis was given. Routine blood investigation including haemoglobin count ad complete blood count was carried out and were within limits. Patient was under 7day course of 4times application of topical Acyclovir (5%). The lesion healed after a week.

\* Corresponding author.

E-mail address: [alishaikhassan@gmail.com](mailto:alishaikhassan@gmail.com) (S. A. Hassan).

### 3. Discussion

Herpes simplex virus is contracted from infected saliva or other body fluids after an incubation period of approximately 4-7 days. Close contact with infected individuals, such as in play groups or sexually active persons predisposes to infection. HSV-1 can cause oral or oropharyngeal infection usually via infection from saliva, and is most frequent & at a lower age in lower socioeconomic groups. HSV-2 can cause severe oropharyngeal infection usually via orogenital or oroanal sexual contact.<sup>3</sup> Herpes simplex virus anogenital infection is contracted from infected semen, saliva or other body fluids. HSV-1 genital infection is usually less common & less severe than HSV-2 infection. Patients with immune defects are liable to severe and/or protracted HSV infections.

Physical contact with an infected individual is the typical route of HSV inoculation for a seronegative individual who has not been previously exposed to the virus or possibly for someone with a low titer of protective antibody to HSV. The virus binds to the cell surface epithelium via heparan sulfate, followed by the sequential activation of specific genes during the lytic phase of infection. These genes include immediate early (IE) and early (E) genes coding for regulatory proteins and for DNA replication, and late (L) genes coding for structural proteins.<sup>4</sup>

During latency no infectious virus is produced; there is expression of early, but not late, genes; and there is no free virus. No major histocompatibility (MHC) antigens are expressed, so there is no T-cell response during latency. Some 50% of primary HSV infections are subclinical. The main features of clinical primary disease are: A. The mouth or oropharynx is sore B. A single episode of oral vesicles which may be widespread, and break down to leave oral ulcers. These are initially pin point but fuse to produce irregular painful ulcers C. Acute generalised marginal gingivitis D. Cervical lymph nodes may be enlarged & tender. Usually several nodes in anterior triangle of the neck – especially the jugulo digastric nodes – are enlarged often bilaterally. Posterior triangle & nodes elsewhere are not enlarged, unless there are systemic complications or lesions in other sites. There is no hepato splenomegaly unless there are systemic complications or lesions elsewhere. There is sometimes fever and /or malaise.<sup>5</sup> Diagnosis is largely clinical.

Lab investigations include

1. Culture – takes days to give result.
2. Electron microscopy – is not always available.
3. Polymerase chain reaction detection of HSV-DNA-is sensitive & Rapid but expensive.
4. Immuno detection – conventional enzyme linked immuno sorbent assays (ELISA) for serum antibodies have poor sensitivity & specificity. While newer assays

based on IgG1 HSV glycol proteins are comparable with western blot assays.

5. A rising titre of serum antibodies is confirmatory but only gives the diagnosis retrospectively. F. Smears for viral damaged cells –routinely used

#### 3.1. Clinical features

Most lesion appear on the vermilion border of lip and surrounding skin, they are grey or white vesicles which rupture quickly leaving small red ulcerations, sometimes with erythematous halo on lip covered by bluish crust on lips. Size ranges from 1-3mm to 2cm rarely can cause disfigurement.

Symptoms: in either location is preceded by the tingling, burning sensation, feeling of tautness, swelling or slight soreness with subsequent development of vesicle.

**Signs:** it is accompanied by edema at the site of lesion followed by formation of clusters of small vesicles.

**Healing:** they gradually heal within 6-10 days and leave no scar.

**Complications:** they can lead to extragenital lesions , CNS complications and vaginal fungal infection.



**Fig. 1:** Extraoral picture of patient

#### 3.2. Incidence

It stands as one of most common infective vesiculo-ulcerative oral lesions with distressing and debilitating characteristics worldwide. Herpes labialis is a commonly occurring ailment with reported prevalence of 15-32.9%.<sup>6</sup> It constitutes the third and fourth most prevalent oral mucosal lesion in children and youth in the USA<sup>7</sup> and in the adult population in Slovenia. Herpes labialis has been reported to constitute 0.58% of oral mucosal lesions in patients visiting a dental school in Southern India.<sup>8</sup>



**Fig. 2:** Shows numerous ruptured vesicles on left lip and surrounds labial mucosa



**Fig. 3:** Lesion healed after a week

### 3.3. Diagnosis

1. History: past history of contact with the person with the recurrent herpes labialis is helpful in making diagnosis.
2. Typical clinical feature: it is based on clinical presentation. Prodromal symptoms followed by the eruption of vesicles and marginal gingivitis.
3. Hsv can be identified from scrapings from the base of lesion sealed on glass by giemsa and papanicolau stain. Cytology shows intranuclear inclusions and multinucleated giant cells.
4. Antibody titer: antibodies reach in week and raise to maximum by 3weeks. Dark fluorescent is helpful than the routine cytology.

### 3.4. Treatment

The treatment plan was the patient was given acivir ointment containing acyclovir (5%) to be applied on affected sites for 1week and recalled for the checkup.

## 4. Conclusions

Herpetic infections represent a reactivation of the herpes simplex virus, which is highly infectious to patients, their families, dentists and staff members. The diagnosis of these conditions usually is based on case-specific historical findings, the characteristic clinical appearance and the location of the lesions. Most of the time it is considered as the insect bite. Dentists often treat patients with a history of recurrent herpetic infections. Until the herpetic lesions are completely healed, the dental team should use management strategies to prevent spread of the virus, ensure adequate nutrition and maintain appropriate oral hygiene practices.

## 5. Source of Funding

None.

## 6. Conflict of Interest

None.

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## Author biography

**Shaik Ali Hassan** Dental Surgeon

**Sumit Bhateja** HOD

**Geetika Arora** Reader

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