

## PAPER DETAILS

TITLE: RECURRENT HERPES LABIALIS (REVIEW OF THE LITERATURE AND A CASE REPORT)

AUTHORS: Saadettin DAGISTAN, Profdromurat BILGE, dtoguzhan ALTUN

PAGES: 0-0

ORIGINAL PDF URL: <https://dergipark.org.tr/tr/download/article-file/27659>

## **RECURRENT HERPES LABIALİS** ( Review of the Literature and A Case Report)

**Dr. Saadettin DAĞISTAN\***

**Prof.Dr.O. Murat BİLGE\*\***

**Dt.Oğuzhan ALTUN\***

### **SUMMARY**

Herpes Simplex virus is the factor of herpetic stomatitis and recurrent herpes labialis. Especially, It occur in patients whose recurrent intra-oral infection immunity system was dominated by any reasons. Information was given about herpes labialis due to fact a case by reviewing the literature.

### **Recurrent Herpes Labialis**

Nearly 80- 90 % of the world population is infected with herpes virus. Virus is a problem making modern life hard in all races cultures and countries (It is not important what kind of virus is)

Herpes simplex virus (HSV) is a DNA virus and at the same time, it is a member of human herpes virus family (HHV) <sup>1-6</sup>

Scientific researches have shown that herpes virus has got more than 5000 different types and only eight of these can cause illness in human . <sup>1-7,36</sup> These

1. Herpes Simplex Virus 1 ; ( HSV1) Cold Sores

2. Herpes Simplex Virus 2 ; ( HSV2)

3. Varicella Zoster Virus ; ( VZV / HHV3 )

4. Epstein Barr Virus ; ( EBV / HHV4 )

5. Cytomegalo Virus ; ( CMV / HHV5 )

6. Human Herpes Virus ; ( HHV6 )

7. Human Herpes Virus ; ( HHV7 )

8. Human herpes Virus ; ( KSHV / HHV8 )

HSV has got two types. <sup>1-36</sup> Type 1 Cause lesion commonly on skin in oro-facial region and in upper part of the body. It is known as Herpes Labialis, because It is located commonly in corner of the mouth, on the lip, in the mucocutaneous joint place and under the nose. <sup>7,8,10,12</sup> Type 2 cause infection in genital region, in the bottom part of the body and in infants. <sup>7,8,10,13,27</sup>

Behaviour form, environmental and epidemiological features of both viruses are more similar to each other. It was determined that nearly 15-37 % of all new HSV-2 cases were resulted from HSV. <sup>117</sup>

HSV infection in infected human always remains in the way of the three periods. <sup>1-7,9,26</sup>

- Primer İnfection Period

- Latent Period

- Reactivation and Recurrent İnfection Period

### **Primer İnfection Period**

Although premier infection occurs in two-three years old, It shows that Virus has very high infections character because new cases appear in other old-group. However, The rate of

\* Atatürk Üniversitesi Dişhekimliği Fakültesi Oral Diagnoz ve Radyoloji Araştırma Görevlisi

\*\* Atatürk Üniversitesi Dişhekimliği Fakültesi Oral Diagnoz ve Radyoloji Öğretim Üyesi

premier infection is about 15 % in adults. Disease infects with direct contact. After 15-42 days from beginning of premier herpes infection, It has been observed that Virus remains actively in body liquids. In children. There are a lack of appetite, weakness and joint-pains. Temperature and trembling occurs together with classic viral symptoms. After a very short time, (6-24 hours) mouth eruptions affecting lip, tongue, gingiva and oral mucosa happen.<sup>1,5,7,9,21,23</sup>

#### **Prodromal Period**

1-There seems to be restless feeling and itching and scratching in the site of lesion soon before the lesion appear.<sup>1,2,5,7</sup>

2-*Inflammation Period* : swollen surrounded by a slightly erythema area commences 12 hours after prodromal priod.<sup>1,7,25</sup>

3-*Vesicul Period* : One or more vasicular lesions 2-4 mm diametered, surrounded by a small erythema area, in a blistered construction appear 24-36 hours after following inflammation. The first observation site of vasicullars is under lower lip sides, skin, margin of mucosa and the nose. The lesions settle in oral cavity and, in turn, gingiva, oral mucosa, tongue and pharynx. Viral titre in this period, that is 48 hours throught. Infection is the highest level, and decreases in the time. Both vasicular liquid and patient's saliva is to large extend infected. Particularly, as a result of flow of infected saliva in children, herpetic skin lesions can be seen on the chin and anterior part of the chest. The patients states that They feel uncomfot for the first 24 hours following to vasicular formation.<sup>1,5,7,9,12</sup>

4-*Ulcer Period* : Vasicular in mucosa do not remain constant for along time. In 36 and 48 hours, They are torn and the liquid in them is evacuated. Painful ulcers take their places. There

are scab on lesion in skin. In acute herpes gingivo-stomatitis the swelling affecting marginal and papiller gingiva distributes the patient in along extent. Typically, a white strata forms on the tongue. Cervical lymphadenopathy is generally available. There is a restless and uncomfot accompanied by fever.

5-*Recover Period*: Lesions recovers completely without leaving skatris in 7-10 days<sup>1,5,7,11</sup>

#### **Latent Period**

After the previous infection, immunization occurs in some individualis. However, Virus may pass to the latent period in 16-45 % of the patients'.

In this cases, Virus remains latent in specific cell groups. This cell group is generally nerve cells in trigeminal gonglion. Virus enters from the nerve ends, It hides in the body cycling the gonolions. It hides without giving any hazard to the host by escaping from immune system. It can turn into a virus in a cell in which a virus remained latent. In viral genoms in which latent virus settled, viral genoms formed into closed molecules, and they appear only as subgroups of virus genes.<sup>5,7,8,10,11</sup>

#### **Reactivation and Recurrent Infection Period**

Recurrance of lesions and reactivation of the virus hasn't been verified completely with recurrent, It may be together with a number of factor. Among these, emotional and physical stresses take the great place. For spontaneous activation of the viruses, It is necessary to remove the pressure either on immune system or latent viral genes. This is possible with having celluler and hormonal and neuroendocrin ways taken action by means of trigering factor.<sup>5,8,18,20</sup>

## CASE

The patient, Z Z, is married and a mother with two children. He applied for Atatürk University Dentistry faculty the department of Oral-Diagnose and Radiolog Clinic with the complaint of toothache. In her examination, a hard and round, brown shelled and 5 mm- diametered, and rough lesion was observed in left side of lower lip. In oral examination, gingiva, soft tissue and tongue were normal appearance, and there was no lesion appeared once a month or every two months in the onset of menstruation period, and it first become vesicular type, then it was torn and it became shelled. Healed in 7-10 days and that it was not "vesicles" She indicated that there were no similar lesions in any part of her body and in her family members. Our patient who informed that she had no other systemic disease said that she had never used and will never use any medicine for "vesicles"

## DISCUSSION

Recurrent may vary. There is literature that certain factors such as ultraviolet light, systemic infections, physical trauma, emotional stress, fever, tooth extraction and menstruation triggered the recurrence.<sup>1,8,11,20,23,25</sup>

In the reactivation of HSV infection, clinical lesions are usually observed on the mucocutaneous parts of the lips. However, intra-oral recurrent has also been reported. The frequency of recurrence varies among patients. Yet, it has been indicated that involvement occurs once every month or more in 25 % of the patients affected by recurrent herpes labialis.<sup>5,7</sup>

Herpes labialis, in our case, repeating every month or every two months at the beginning of menstruation period is in conformity with the above mentioned findings.

Besides, it was indicated that recurrence increases as a result of cancer chemotherapy, HIV infection, aplasia of the bone marrow as a result of leukemia and after the restraint of the immunity system due to the administration of some medicine after transplantation. The oral lesion appearance of the secondary herpes simplex infection in these patients is variable and very dramatic. Vesicles and bullae lead to wide ulcerative sites. Healing occurs more lately.<sup>5,15,23,27,31,32,36,37</sup>

Primary HSV 1 infection, subclinical or acute may cause some diseases. These are gingivostomatitis, rhinitis, vulvovaginitis, keratoconjunctivitis, meningoencephalitis, eczema herpeticum and whitlow.<sup>2,5,7,9,12,22,24</sup>

No thrombocytopenia was observed. However, minor thrombocytopathy was considered responsible for the formation of purpura in some cases.<sup>9</sup>

It was thought that herpes virus, among some malignancy etiologies may play a role according to various studies done. Among these HSV 1 was related to oral cancer (squamous-cell tumors), HSV 2 to cervical cancer, Epstein-Barr Virus to Burkitt's lymphoma and nasopharyngeal carcinoma, and cytomegalovirus to Kaposi's sarcoma.<sup>15,16,32,33,35,38</sup>

Moreover, there are papers about the relation of HSV 1 with erythema multiforme, cranial nerve palsies, cluster headaches, Behçet's Syndrome, recurrent aphthae and duodenal ulcers.<sup>7,28,30,34</sup>

## REFERENCES

1. Neville WN, Damm DD, Allen CM, Bouquot JE. Oral Maxillofacial Pathology W.B.Saunders Com. Toronto,1995.
2. Cawson RA, Odel EW, Porter S. Oral Pathology and Oral Medicine. 7 ed. Edinburg London New York Philadelphia St.Louis Sydney Toronto, 2002.
3. Zegarelli EV, Kutscher AH, Hyman AG. Diagnosis of Disease of the Mouth and Jaws, sec ed. Lea & Febiger. Philadelphia, 1978.
4. Stafne EC. Oral Roentgenographic Diagnosis. Third Ed.W.B. Saunders Com. Toronto, 1969.
5. Sonis ST, Fazio RC, Fang L. Oral Medicine. 2nd.ed.W.B Satunders Com. Philadelphia,1995.
6. Shafer WG, Hine MK, Levy BM. Oral Pathology. Fourth ed. W.B Saunders Com. Philadelphia,1983.
7. Scully B. Orofacial herpes simplex virus infections: Current concepts in the epidemiology, pathogenesis, and treatment, and disorders in which the virus may be implicated. Oral Surg. Oral Med. Oral Path 1989; 68: 701-10.
8. Straus SE, Rooney JF, Sever JL, Seidlin M, Nusinoff-Lehrman S, Cremer K. Herpes simplex virus infections: Biology, Treatment and Prevention. Ann.Intern Med.1985;103:404-19.
9. Scully C. Ulcerative stomatitis, gingivitis and skin lesions. Oral Surg.1985;59(3):261-3.
10. Whiteley RJ, Nahmias AJ, Visintine AM, Fleming CL, Alford CA. The natural history of herpes simplex virus infection of mother and newborn. Pediatrics.1980;66(4):489-94.
11. Croen KD, Ostrove IM, Dragovic LJ, Smalek JE, Straus SE. Latent herpes simplex virus in human trigeminal ganglia. N Engl J Med. 1987;317:1427-32.
12. Rowe NH, Heine CS, Kowalski CJ. Herpetic whitlow: An occupational disease of practicing dentist. JADA.1982;105:471-3
13. Corey L, Adams HG, Brown ZA, Holmes KK. Genital herpes simplex virus infections: clinical manifestations, course and complications. Ann Intern Med 1983;98:958-72.
14. Greenberg MS, Cohen SG, Boosy B, Friedman H. Oral herpes simplex infections in patients with leukemia. JADA 1987;114:483-6.
15. Shillito FJ, Silverman S. Oral cancer and herpes simplex virus: A review. Oral Surg 1979;48 (3):216-24.
16. Scully C. Viruses and cancer: Herpesviruses and tumors in the head and neck. Oral Surg.1983;56(3):285-92.
- 17-Kohl S. Herpes simplex virus immunology: Problems, progres and promises. J Infec Dis 1985;152 (3):435-40.
18. Corey L, Spear PG. Infections with herpes simplex viruses. N Engl J Med 1986; 314(11):686-91.
19. Turner R, Shehab Z, Osborne K, Hendley JO. Shedding and survival of herpes simplex virus from "Fever Blister". Pediatrics 1982;70(4):547-9.
20. Openshaw H, Bennett HE. Recurrence of herpes simplex virus after dental extraction. J Infec Dis 1982; 146(5):707.
21. Spruance SL. Pathogenesis of herpes simplex labialis: excretion of virus in the oral cavity. J Clin Microbiol 1984;19:675-9.
22. Manzella JP, McConvilleJH, ValentiW, Menegus MA, Swierkosz EM, Arens M. An outbreak of herpes simplex virus 1 gingivostomatitis in a dental hygiene practice. JAMA 1984;252:2019-22.
23. Silverman S, Beumer J. Primer herpetic gingivostomatitis of adult onset. Oral Surg. Oral Med Oral Path 1973;36:496-503.
24. Scully C. Ulcerative stomatitis, gingivitis, and rash: A diagnostic dilemma. Oral Surg Oral Med. Oral Path 1985;59:261-3.
25. Corey L, Spear PG. Infections with herpes simplex viruses. N Engl J Med 1986;314:686-91.

26. Nahmias AJ, Roizman B. Infection with herpes simplex viruses 1 and 2. *N Engl. J Med* 1973;289:667-74.
27. Malkin JE. Natural history of HSV 1 and HSV 2 transmission models and epidemiology consequences of HSV infection on HIV infection. *Prevention Ann Dermatol Venereol* 2002;129:571-6.
28. McCormick DP. Herpes simplex virus as a cause of Bell's palsy. *Lancet* 1972;1:937-9.
29. Stalker W. Facial neuralgia associated with recurrent herpes simplex. *Oral Surg Oral Med. Oral Path* 1980;49:502-3.
30. Borg I, Andren L. Herpes simplex virus as a cause of peptic ulcer. *Scand J Gastroenterol* 1980;15:53-61.
31. Barrett AP. A long-term prospective clinical study of orofacial herpes simplex virus infections in acute leukemia. *Oral Surg Oral Med. Oral Path* 1986;61:149-52.
32. Cohen SG, Greenberg MS. Chronic herpes simplex virus infection in immunocompromised patients. *Oral Surg. Oral Med. Oral Path* 1985;59:465-71.
33. Montgomery MT, Redding SW, Le Maistre CF. The incidence of oral herpes simplex virus infection in patient undergoing cancer chemotherapy. *Oral Surg Oral Med Oral Path* 1986;61:238-42.
34. Grufferman S, Barto JW, Eby NL. Increased sex concordance of sibling pairs with Behcet's disease, Hodgkin's disease, multiple sclerosis and sarcoidosis. *Am J Epidemiol* 1987;126:365-70.
35. Maitland NJ, Scully C, Prime SS, Ward-Booth P. Oral cancer: are herpes simplex genes expressed? *J Dent Res* 1984;63:518.
36. Glesby MJ, Moore RD, Chaisson RE. Clinical spectrum of herpes zoster in adults infected with human immunodeficiency virus. *Clin Infect Dis* 1995;21:370-75.
37. Regezi JA, Eversole R, Barker BF, et al. Herpes simplex and cytomegalovirus coinfecting ulcer in HIV positive patients. *Oral Surg. Oral Med Oral Path* 1996;81:55-62.
38. Epstein JB, Sherlock CH, Wolber RA. Oral manifestations of cytomegalovirus infection. *Oral Surg Oral Med. Oral Path* 1993;75:443-51.

**Yazışma Adresi:**

**Dr. Saadettin DAĞISTAN**

Atatürk Üniversitesi

Diş Hekimliği Fakültesi

Oral Diagnoz ve Radyoloji Anabilim Dalı

Telefon: 0090.442.2311798

Fax : 0090.442.2360945

e-mail : dagistan @atauni.edu.tr