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A Case Report on Acute Herpetic Gingivostomatitis in an Adult Patient

Dr. Ruchi Bhuyan1, Dr. Sanat Kumar Bhuyan 2*, Akankshya Sahu3 ,Dr. Gautam Rath4, Sidhant Bhuyan5

[1]. Department of Oral pathology & microbiology, Institute of Medical Sciences, Siksha "O" Anusandhan University (Deemed to be), K8, Kalinganagar, Bhubaneswar-751003, Odisha, India

*Phno. 9437213002 *ruchibhuyan @soa.ac.in*

[2]. Department of Oral Medicine & Radiology, Institute of Dental Sciences, Siksha "O" Anusandhan University (Deemed to be), K8, Kalinganagar, Bhubaneswar-751003, Odisha*

[3].PHD Student, SOA

[4]. Prof. School of Pharmacy, SOA

[5]. Medical Student, Nepalgunj Medical Collage, Kathmandu University, Nepal

Abstract: Acute herpetic gingivostomatitis is widely recognized type of HSV-1 disease in the oral region. Over 90% primary herpetic gingivostomatitis infections are brought about by HSV-1 and a few cases by HSV-2. Most often it is reported in children but also seen in elders and adults. Infection is greatly transmissible and communicated by direct interactionto infected saliva and lesions. This infection is generally noticeable in buccal region thus it is significant for the health professionalists to detect the infection in the right time. In this article we account a 36 year old female patient having acute herpetic gingivostomatitiswith giving attention on medical features, symptoms and signs and its management.

1. INTRODUCTION:

Approximately 60 to 95% of the populace overall is infested by at least one or more than one viral microorganismof these herpes family.[1] Among all, Acute primary herpetic gingivostomatitis (AHGS) is most widely recognisedmedicalaccount of herpes simplex worm contagion which is brought about by herpes simplex virus type-1 (HSV-1) and herpes virus type-2 (HSV-2).[2] Mostly HSV-1 is relatedto skin, face, lips, buccal cavity infections and HSV-2 is relatedto skin of the lower body and genital infections.[3]The lead factor for HSV infections is a weak immune system along with some intenseinfectious diseases like pneumonia, meningitis, typhoid, influenza and stressful conditions.

Herpetic gingivostomatitis is a contagious disease.[4] The infection is transmitted through droplets or saliva and direct contact with lesions also.[5,6] It affects children under 10 years of age in general,[7] but it can affect the people of any ages.[8] The main symptom is the formation of lesions in the oral cavity which is an advantage to diagnosing the disease as compared to other professionals.[7]The clinical characteristic introduced by some certain onset conditions includes fever, discomfort, asthenia, lymphadenopatheis and sometime discomfort and irritation.[9]

Clinically, the mostcommonly seen ulcers are specified buccal ulcers, minor and circular proceeding by vesicles but in maximum cases these were not shown previously, as they are delineated after the few hours of their delusion. Mainly they are present in keratinized mucous membrane.[10]

In present article, we outline a case of For an adult patient, acute herpetic gingivostomatitis and the probable differential diagnosis that could be advised depended on presentdiscussion. This medicalrecord also point out the attention for oral dentists to take a comprehensive concepts to administration of oral infections in patients which is in return generate positive variations in the patient's oral wellbeing status, practices and awareness.

2. CASESTUDY

In the Sector of Radiology & Oral Medicine, Institute of Dental Science (IDS), Siksha O Anusandhan (Deemed to be University), Bhubaneswar, Odisha,a 36 year female patient was reported with the main complaint of burning feelings in the mouth and wound formation in upper arch region since 7 days. Patients was apparently alright 7 days back, after which she developed a wound in the upper arch followed by fever for 2-3 days and the wound gradually increased in the size associated with pain and discomfort. Medical history revealed that she is suffering from hyperthyroidism since 5 years and is under medication. No relevant past dental history was found. She is of mixed diet and brushes once daily with toothbrush.

General examination was done followed by systemic examination, extra-oral examination, TMJ examination, lymph node examination and intra-oral examination and no complications were found. Local examination revealed that an ulcer present on the mid of the head palate size 1x1cm and yellowish white in colour surrounded with erythmatous halo with irregular borders. Border was coalescing with adjacent ulcer of size 0.5x0.5 cm with no secondary changes evidence. Also presence of linear gingival erythemairt 46 47 and 48 region. (Figure-1) On palpation all the inspector findings of size, site and shape were confirmed. The ulcer was smooth in consistency with flat border and was tender on palpation. (Figure-2)

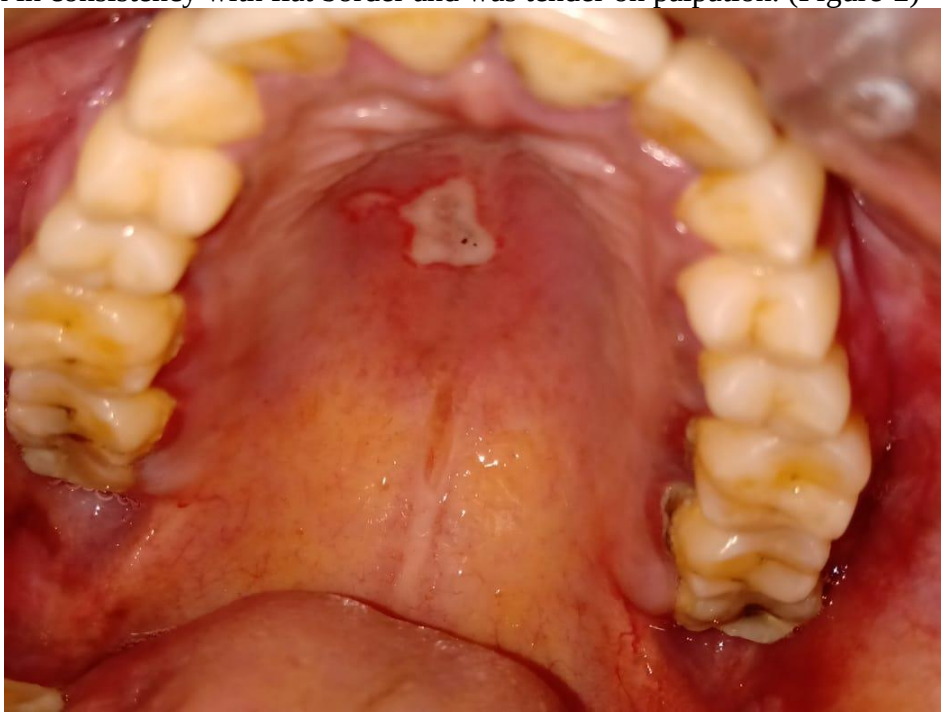

Figure-1

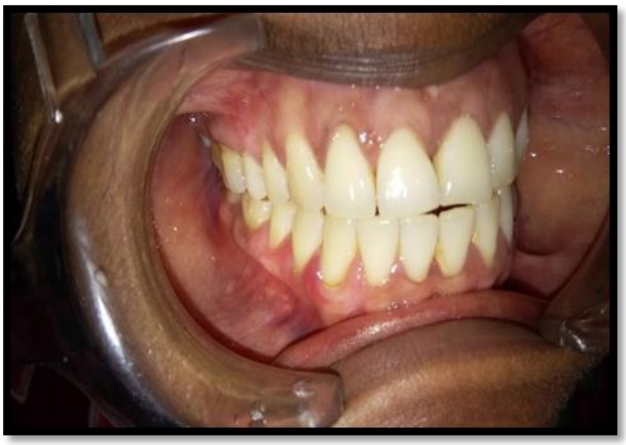

Figure-2

Provisional Diagnosis

In view of history record and medicaldiscoveries a temporary diagnosis of AHGS was specified.

D/D

- Herpetiform apthous stomatitis
- Hypersensitive stomatitis
- Erythema multiforme
- Inflammationsbecause of cancer therapy
- Primary ulcerative gingivitis

Investigations

Generally the analysis of AHGS is determined by the clinical information. CBC and ESR examinations were done and complications were not found.

3. CASE MANAGEMENT OR TREATMENT

The patient was prescribed orally, Zovirax 200 mg 1 tablet four times daily for 5 days after food. Also advised to take Cap VCOR Gold 1cap for 10 days after food.

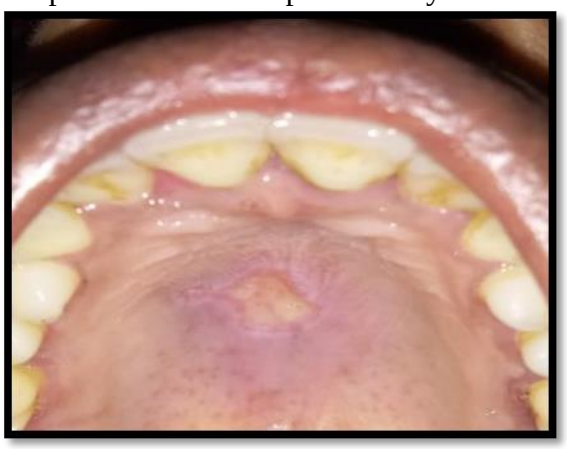

Figure-3 (Revisit after 5 days)

After 5 days patient again prescribed to take Wysolone 10 mg 1 capsule thrice every day for 3 days followed by 1 capsule twice every day for 2 days and also instructed to apply Kenacort ointment thrice daily for 15 days. Patient was advised to take delicate and nutritious food and revisit afterward 15 days.

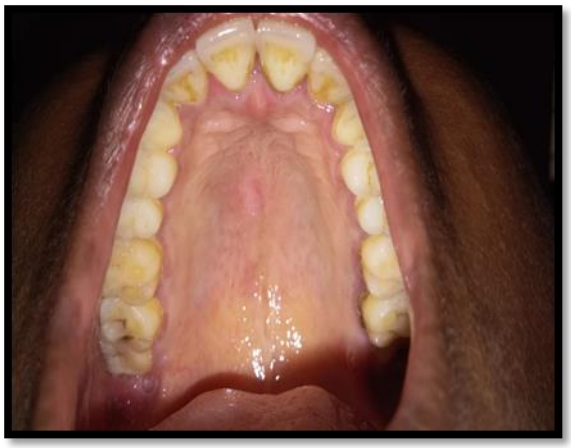

Figure-4 (Revisit after 1 month)

On revisit, complete healing of lesion was seen. (Figure-4)

4. DISCUSSIONS

AHGScharacterizes the fundamentalexample of acutedisease with herpes simplex viruses.[11]All HSVs comprise of a DNA nucleus which can persist abeyant in the host nerve cells there by disturbing host-immune retort.[12] The HSV is a viral DNA microbe with two strands. HSV-1 is accountable for skin, face and oral diseases along with AHGS and HSV-2 is related with genital illnesses. Structurally the herpes virus comprised of following segments: a capsid shell comprise of protein and dual beached DNA, an envelope comprises of lipid bilayer and 12 glycoprotein which are implanted in the surface of the virus out of which 4 are most important for the viral arrival into the receptor cells and tegument is a section in the middle of the capsid &envelope, which is proteinaceous in nature .[13]

Only human beings are the stockpile of HSVs and it spreads by either direct interaction with the ulcers or oozes from a non-symptomaticcarrier. Inactivity happens while the viral microbe is moved frommucosa endings of nerve by neuron to theganglia. In ganglia DNAexists in non-replicating phase. DNA is visible but viral proteins are not formed. When HSV turns to the replicative state reactivation of the latent virus occurs and as a result of this marginal tissue injury from agony, fever or immunosuppression[14], psychological stress, fatigue, nerve injury and alteration in antiviral action of the saliva. The brutality of infections based on the level of virus duplication, host respond to unknown foreign particles and rapidity of the abeyance time period.[15]

Clinical Management

Over 90% problem of AHGS are due toHSV-1 infection and a few held by HSV-2.[17,18] The gestation time period is 2 to 20 days followed by prodromal non-pathogenic signs. Indications are fever, colds, discomfort, irritation, headache etc. The onset of acute stage is seen and generally signalized by inflammation, sialorrhea and maxilla lymphadenopathy. Some study reported that the irritation of marginal and append gingivae defined by erythema and proliferation of the capillary and spreading of vesicular explosion blending vermilion margin of lip, both buccal and vestibular mucosal region, tongue, hard and soft palate, mouth floor and tonsil region. Newly developed vesicles keep on showing up for 3 to 5 days and

break out in 24 to 48 hours thereby producing irregular ulcers. Gradually healing of that ulcers occur in between 7 to 14 days without scaring however the HSV virus may existing in saliva as long as a month afterward the beginning of infection.[14,16]

Management

The primary treatment includes rest, abstain from smoking of tobacco items and consumption of alcoholic brews, eat a delicatestabled diet, and assure a sufficient intake of liquids, nutrients and minerals.[14,16] Suitable hydration is frequently acquired to control the pain; therefore, analgesics like acetaminophen and solutions are cheered to feel the patient extrarelax and assistliquidconsumption.Effective sedatives, analgesics, and antipyretics, before everymealtimewashing with lidocaine viscous 2%adequately decreases achethroughout eating.[16]

Acyclovir

In case of criticalAHGS and immunocompromised patients acyclovir should be used for the primary treatment.[19]Systematic acyclovir advances the constancy of viral shedding with healing period and decreases the pain. Some common adverse effect includes nausea, vomiting and headache.[16]Patients with severe conditions who failed to retort to acyclovir and may respond to foscarnet of 80-120 mg 1 tablet per day.[19] Topical acyclovir may apply on the lesion.

Other antiviral drugs:

- Valacyclovir (Valtrex) 500 mg thrice daily for 7 days
- Famicyclovir (Famvir) 250 mg thrice daily for 7 days

Tropical antivirals:

- Acyclovir Ointment (Zovirax)
- Penciclovir (Denavir)

Natural Remedies For *Herpes simplex* virus

Reduce intake of carbohydrates. In some case it was found that absorption of a small amount of refined sugar also seems to bring an aggravation.[20] It seen that 45 patients with regularly recurring HSV-1 infections established lysine generally 312-1200 mg/ day for a time period of 2 months - 3 years. Food which are extreme in arginine are limited. Treatment of lysine found to decrease the rate of repeats in the patients but when lysine treatment was stopped sores again repeated in 1 to 4 weeks.[21] Ascorbic acid (Vitamin C) has been exposed to inactive *Herpes simpex* virus in vitro.[22] Herpes sores in AIDS patients were treated with a mixture of oral and extra oral vitamin-C and regulartreatment of Vit- C ointment in the lesions.[20] Zinc ion (at a concentration of 0.1mM) have the capacity to constrain the viral repetition of both HSV-1 and HSV-2 in invitro.[22] Administration of topical vitamin E relief achein 15 minutes - 8 hours and ulcers were degraded more speedily. A study revealed that 50 patients with herpetic cold sores were applied vitamin E capsule on the lesions in every 4 hours and as a result, ache relief happened and the ulcers were cured more quickly than others.[23]Evidence reports that oral as well as topical use of lithium is repressed the duplication of both HSV-1 and HSV-2 viruses in vitro .[24]

5. CONCLUSIONS

Acute herpetic gingivostomatitis mainly seen in children but can also found in all age groups. This type of HSV infection is exceptionally transmissible. The distinctive signs of this condition are several ulcers and reddish gingival boundaries. Diagnosis broadly depend on the clinical discoveries and indications. Acute herpetic gingivostomatitis is inoffensive

and self-limiting in immunocompetent situations. This infection is generally noticeable in the oral or buccal cavity region, that's why it is significant for the dentist to diagnosis the disease in right time and deliver a suitable treatment to the patients.

REFERENCES

1. A. Simmons, "Clinical manifestations and treatment considerations of herpes simplex virus infection," J. Infect. Dis., vol. 186, pp. 71–77, 2002.
2. A.K. George, S. Anil, "Acute herpetic gingivostomatitis associated with herpes simplex virus 2: report of a case," J. Int. Oral Health, vol. 6, pp. 99-102, 2014.
3. E. Thomas, "A complication of primary herpetic gingivostomatitis," Br. Dent. J., vol. 203(1), pp. 33-34, July 2007.
4. Stoopler ET, Kuperstein AS, Sollecito TP. How do i manage a patient with recurrent herpes simplex? J Can Dent Assoc. 2012; 78: c154.
5. P. Jaya, K. Harijanti, "Gingivostomatitis herpetika primer (laporankasus)," Oral Med. Dent. J., vol. 1, pp. 6-9, June - December 2009.
6. Keller EC, Tomecki KJ. Cutaneous Infections and Infestations. J Clin Aesthet Dermatol. 2011; 4(12): 18–24.
7. A.H. Ajar, P.J. Chauvin, "Acute herpetic gingivostomatitis in adults: a review of 13 cases, including diagnosis and management," J. Can. Dent. Assoc., vol.68, pp. 247-251, April 2002.
8. I.N. Staikov, N.V. Neykov, J.S. Kazandjieva, N.K. Tsankov, "Is herpes simplex a systemic disease?" Clin. Dermatol, vol. 33, pp. 551-555, 2015.
9. Kolokotronis A, Doumas S. Herpes simplex virus infection, with particular reference to the progression and complications of primary herpetic gingivostomatitis. Clin Microbiol Infect 2006;12:202–11.
10. Bucket's Oral medicine diagnosis and treatment 10th edition.
11. M. Fatahzadeh, R.A. Schwartz, "Human herpes simplex virus infections: epidemiology, pathogenesis, symptomatology, diagnosis, and management," J. Am. Acad. Dermatol., vol. 57, pp. 1-3, November 2007.
12. Gaby AR. Natural Remedies for Herpes simplex. Altern Med Rev 2006;11(2):93-101.