



TO STUDY CLINICAL FEATURES OF PRIMARY HERPETIC GINGIVOSTOMATITIS IN INDIAN CHILDREN

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ABSTRACT

Herpetic gingivostomatitis is caused by herpes simplex virus type 1 (HSV-1) and is distinguished by excessive-grade fever and painful oral lesions. One hundred children with herpetic stomatitis in outpatient department from January 2016 to February 2018 were selected and divided into treatment group and control group by random number table method. In the treatment group, there were 50 patients, including 29 males and 21 females. Evaluation of curative effect: In the outside use organization, 23 cases have been cured, 10 cases were stepped forward and a couple of instances had been not cured. The overall effective fee became 95.55%. In the control organization, 14 instances have been cured after remedy, 18 cases were improved, 13 instances have been not cured, and the entire powerful charge becomes 71.11%. The general effective charge of the two businesses after remedy turned into as compared, the treatment organization turned into notably better than the manipulate organization, the difference changed into huge ($P < 0.05$), as shown in the desk underneath. Scrupulously figuring out these particular oral manifestations can help make the analysis of PHGS in advance and finally lessen needless prescription of antibiotics.

Key words: Herpetic Gingivostomatitis, Enteroviruses, Gingival Swelling, Oral Mucosa Blisters.

INTRODUCTION

Herpetic gingivostomatitis is a manifestation of herpes simplex virus type 1 (HSV-1) and is characterized by high-grade fever and painful oral lesions. Which is the most common cause of gingivostomatitis in children before the age of 5, and also occur in adults. The appearance is characterized by a prodrome of fever followed by an eruption of painful, ulcerative lesions of the gingiva and mucosa, and often, yellow, perioral, vesicular lesions.

HSV-1 is usually spread from direct contact or via droplets of oral secretions or lesions from an asymptomatic or symptomatic individual. Once a patient is infected with the herpes simplex virus, the infection can recur in the form of herpes labialis with intermittent re-activation occurring throughout life. The condition is highly contagious, and complications range from indolent cold

sores to dehydration and even life-threatening encephalitis. Among 61 children 1 to 6 years of age from Israel, 89% drank less than normal, and 2 of 36 patients were unable to drink. Symptomatic relief primarily involves pain management and oral fluids to prevent dehydration until the viral infection subsides. In a chart review in a US children's hospital, 48 patients 8 months to 12 years of age were treated with fluids and analgesics; 35 of them were also given a mixture of antacid and diphenhydramine and 7 were treated with viscous lidocaine.

Recent studies reported, human non-polio enteroviruses (NPEVs) circulate in summer and fall seasons with an epidemic of enterovirus A71 (EV-A71) occurring every 3–4 years. In children with NPEV infection, EV-A71 is a more concerning issue since

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it may rapidly develop neurologic and systemic complications in a small percentage of patients³. The clinical symptoms/signs of enteroviral infection include high fever and oral ulcers, which are similar to initial presentations of PHGS and may lead to a clinical dilemma to differentiate these two infectious disease entities at the first glance.

The misdiagnosis of NPEV infection from PHGS may sometimes lead to unnecessary medical costs due to hospitalization for close observation of dangerous signs of severe enteroviral infections. Moreover, the duration of symptoms induced by PHGS may be effectively shortened by acyclovir treatment given in the first 72–96 h of onset⁴. However, viral culture would usually take up to 2 weeks to confirm the diagnosis. Therefore, to clearly define the clinical features of PHGS in children would be important to make a precise diagnosis of these patients for the appropriate initial treatment. The aim of study is Prevalence and clinical features of primary herpetic gingivostomatitis in children.

MATERIAL AND METHODS

One hundred children with herpetic stomatitis in outpatient department from January 2016 to February 2018 were selected and divided into treatment group and control group by random number table method. In the treatment group, there were 50 patients, including 29 males and 21 females, with an average age of (2.75 ± 0.32) years and an average course of disease of (2.15 ± 0.83) d; Control group 45 cases, male 26 cases, female 24 cases, average age of (2.91 ± 0.66) years, average course of disease (2.24 ± 0.79) d. There was no significant difference between the two groups in age, course of disease and condition after statistical treatment, with statistical significance (P > 0.05).

Systemic prodromal symptoms, such as fever, fatigue, irritability, salivation, refusing to eat, crying, etc.; Subsequently appear gingival swelling, oral mucosa blisters, erosion or ulcers and other symptoms, some children have herpes around the lip or oral odor; No local use of corticosteroids or antibiotics in the oral cavity after the onset of the disease. The main symptoms are ulceration in the gum, tongue, cheeks and palate, with different ulceration points, salivation and pain; the

secondary symptoms are dry mouth, short yellow urine, and red tip of the tongue, thin yellow tongue coating and slippery pulse.

Inclusion criteria:

Children with herpetic stomatitis who met the above diagnosis; children aged 1 - 6 years old; children’s families have good compliance and can sign the informed consent.

Exclusion criteria:

a) Allergic constitution and allergic to the test drug; Children with systemic recurrent ulcers; children with poor compliance and contraindications for treatment; children with severe liver, heart and renal dysfunction.

RESULTS

Evaluation of curative effect: In the external use group, 23 cases were cured, 10 cases were improved and 2 cases were not cured. The total effective rate was 95.55%. In the control group, 14 cases were cured after treatment, 18 cases were improved, 13 cases were not cured, and the total effective rate was 71.11%. The total effective rate of the two groups after treatment was compared, the treatment group was significantly better than the control group, the difference was significant (P < 0.05), as shown in the table below.

Assessment of healing impact: In the outer use bunch, twenty seven cases were restored, ten cases were improved and eight cases were not relieved. The absolute compelling rate was 90%. In the control group, 10 cases were restored after treatment, 9 cases were improved, 16 cases were not relieved, and the absolute successful rate was 70%. The complete viable pace of the two gatherings after treatment was thought about, the treatment bunch was fundamentally better compared to the benchmark group, the thing that matters was huge (P < 0.05).(Table 1)

The disappearance rate of ulcer pain after 24 h was compared between the two groups as follows: the disappearance rate of the external use group was 78%; the hourly rate of pain in the control group was 32% (Table 2).

Table 1: Comparison of clinical efficacy between the two groups..

Group	Number of cases	Not healing	Getting better	Cured	Total effective rate
Treatment	50	8	10	27	90%
Control	50	10	9	16	70%

Table 2: Ulcer pain disappearance rate 24 h after treatment in both groups.

Group	Number of cases	Disappearance of symptoms	Symptoms do not disappear	Pain Disappearance rate (%)
Treatment	50	39	11	78%
Control	50	19	31	32%

Table:3. Effectiveness of acyclovir treatment between different time points

	<72hs	>72hrs	Not used	
Case no	22(44%)	16(32%)	12(24%)	
Fever	4.22±1.82	3.4 2±1.76	3.22±1.52	0.559
Length of hospital stay	2.58±1.32	3.96±1.82	4.25±1.53	0.116

DISCUSSION:

This disease belongs to the category of “oral sore” and “chyme of mouth” in present study there are no specific treatment measures, mainly symptomatic treatment, to relieve pain, promote healing, prevent recurrence as the therapeutic principle. Wang, W.P 6. report that there are a variety of clinical treatment methods for this disease .They used iodine glycerin with lidocaine to treat pediatric herpetic stomatitis and applied hydrogen peroxide and iodine glycerin in the oral ulcer of children, killing pathogenic bacteria and viruses to a certain extent. However, when implemented on the ulcer surface, the pain of young youngsters is insufferable, the compatibility is low, and it is not clean for mother and father to accept, and on the identical time, the physiological and psychological care of kids are significantly damaged.

The application of convalescing new liquid combined with other drugs for the treatment of the disease, through gargling can accelerate the healing of the ulcer, but the children are difficult to accept its odour and have poor compliance reported by famous doctor in Changchun.⁷

Current study showed that fever is most common clinical symptom in children with PHGS. The period of fever in youngsters with other virus triggered sicknesses usually ranged from to four days, whilst youngsters with PHGS might suffer for a longer fever length in King DL, Steinhauer W,et al study.⁸ Which is correlated with present study, the average fever duration was 5 days and more than 20% of the patients even had a fever duration longer than 7 days.

C-reactive protein (CRP), test, is a biomarker to distinguish higher level in bacterial from lower level in viral infections though inconclusively, In the current study, along with leukocytosis, a higher serum CRP level > 40 mg/L (normal, < 5 mg/L) was found in around 40% of the cases. High values of CRP are frequent in patients

with number one herpetic gingivostomatitis, similar to adenoviral infections and some bacterial infections which is similar to Nevet et al 9 said that a excessive value of CRP turned into generally seen in pediatric sufferers with PHGS and the average fee of 66 patients in their look at became as much as 74 mg/L, with more than one-third of the patients having a value > 70 mg/L. These findings suggest that a CRP level isn't reliable to differentiate PHGS from both bacterial and enteroviral pharyngitis. A few examinations demonstrated that organization of oral acyclovir inside 72 to 96 h after illness beginning can really decrease the span of fever, oral ulcers, and food consumption trouble in youngsters with PHGS. A big part of the cases in this study got acyclovir treatment. Be that as it may, the organization of acyclovir treatment, regardless of whether inside 72 h of fever beginning, had no critical useful impact on either the span of fever or the length of medical clinic stay. Since this was a review study, the specific timing and dosing of acyclovir treatment as well as the mending of oral ulcers and how much food admission probably won't be carefully assessed and recorded and thusly prompted an adverse consequence of the impact of acyclovir treatment.

CONCLUSION:

Clinically, a case of primary herpetic gingivostomatitis may also happen stomatitis lesions over the posterior a part of the oral cavity first, and then the lesions can also make bigger to the anterior part of the oral hollow space with the presentation of gingivitis (as gum swelling/bleeding), which can be key capabilities for a clinical prognosis of PHGS. Scrupulously figuring out these particular oral manifestations can help make the analysis of PHGS in advance and finally lessen needless prescription of antibiotics.

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