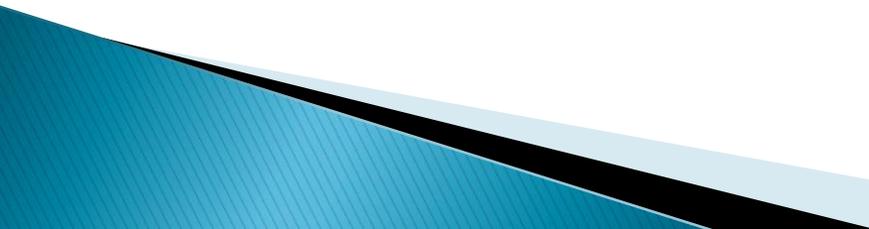


ACYCLOVIR IN THE
TREATMENT OF
GINGIVO-STOMATITIS :
IS IT NECESSARY ?

BÙI NGUYỄN ĐOAN THƯ

Definition

- ▶ Gingivo-stomatitis : ulcerative lesions of the gingiva and mucous membranes of the mouth.
 - ▶ Primary herpetic gingivostomatitis : commonly seen (85%), typically occurs in children between six months and five years of age, but it can occur in older children and adolescents.
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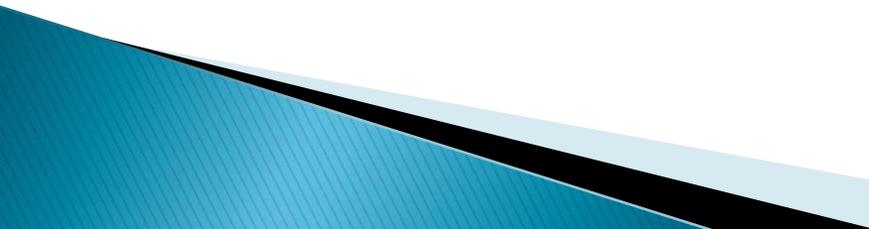


Causes :

Gingivostomatitis may occur because of:

- ▶ Herpes simplex virus type 1 (HSV-1)
 - ▶ Coxsackievirus
 - ▶ Enterovirus 71
 - ▶ Certain bacteria (*Streptococcus*, *Actinomyces*)
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Natural history

- ▶ Fever – 4.4 days (range 0 to 8 days)
 - ▶ Oral lesions – 12 days (range 7 to 18)
 - ▶ Extraoral lesions – 12 days (range 0 to 19)
 - ▶ Eating difficulty – 9.1 days (range 4 to 17)
 - ▶ Drinking difficulty – 7.1 days (no range provided)
 - ▶ Drooling – 6.6 days (range 0 to 13)
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Diagnosis

- ▶ **Clinically**, based upon the typical appearance and location of oral and extraoral lesions
- ▶ In cases where it is necessary to confirm an etiologic diagnosis, herpes simplex virus type 1 (HSV-1) can be diagnosed with *viral culture, serology, immunofluorescence, or polymerase chain reaction.*

Differential diagnosis

- ▶ Herpangina
 - ▶ Hand, foot, and mouth disease
 - ▶ Oral candidiasis
 - ▶ Aphthous ulcers
 - ▶ Stevens-Johnson syndrome
 - ▶ Behçet syndrome
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TREATMENT

- ▶ Fluid intake
 - ▶ Pain control : Acetaminophen, Ibuprofen
 - ▶ Topical therapies : "Magic mouthwash" consists of various combinations of diphenhydramine, magnesia-alumina (Maalox), Kaolin pectin (Kaopectate), and/or viscous lidocaine
 - ▶ **Oral Acyclovir**
 - ▶ Antibiotic : not routine
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Oral Acyclovir

INDICATION :

- ▶ Immuno-competent children with herpetic gingivostomatitis
- ▶ Within 72 to 96 hours of disease onset
- ▶ Unable to drink or have significant pain

Table 1 Does oral aciclovir improve clinical outcome in immunocompetent children with primary herpes gingivostomatitis?

Citation	Patient group*	Study type (level of evidence)	Outcomes	Key result	Comments
Amir <i>et al</i> (1997) ¹	61 children aged 1–6 years with clinical manifestations of gingivostomatitis (within 72 h of onset) and positive HSV cultures	Randomised double blind placebo controlled trial (level Ib, Jadad = 5)	Duration of oral lesions Fever Eating and drinking difficulties Viral shedding	Treatment group showed significantly reduced median duration of all symptoms (i: oral lesions 4 vs 6 days; ii: eating difficulties 4 vs 7 days; iii: drinking difficulties 3 vs 6 days; iv: extra-oral lesions 0 vs 5.5 days) and completion of viral shedding (1 vs 5 days). ($p < 0.05$)	High proportion of subjects presenting with mild disease (<20 oral lesions)
Aoki <i>et al</i> (1993) ⁹	68 children presenting within 96 h of symptom onset	Randomised double blind placebo controlled trial (level Ic, Jadad = 4)	Duration of oral lesions Gum swelling Hypersalivation Completion of viral shedding	Treatment group showed a significant reduction in median symptom duration of 20–50% (i: oral lesions 6 vs 8 days; ii: gum swelling 5 vs 7 days; iii: drooling 4 vs 8 days) and in completion of viral shedding (4 vs 10 days). ($p < 0.05$)	Results presented but not published as an article Duration of treatment 10 days. Results thus not directly comparable to similar studies
Ducoulombier <i>et al</i> (1988) ⁸	20 children (mean age 2 years) presenting within 96 h of symptom onset with positive isolation of HSV in cell culture	Randomised double blind placebo controlled trial (level Ic, Jadad = 4)	Duration of pain Hypersalivation Fever Duration of oral lesions	Significant improvement in pain and hypersalivation in treatment group. Mean duration of pain 4.3 days in aciclovir group vs 5.0 days in placebo group ($p < 0.05$)	Study may be too small for valid comparison between groups
Cataldo <i>et al</i> (1993) ²	162 immunocompetent children with herpetic gingivostomatitis (peak age of incidence 9–28 months)	Retrospective clinical and epidemiological study (level IIc)	Time to symptom regression Epidemiological aspects of HSV gingivostomatitis	More rapid symptom regression in children treated with 5–6-day course of aciclovir	Non-blind/random selection of treatment group combined with epidemiological study design means limited data on intervention can be elicited from this study in isolation
Mueller <i>et al</i> (1988) ¹⁰	41 children with herpetic gingivostomatitis treated with aciclovir	Non-blind, uncontrolled, open study (level IIc)	Duration of oral lesions Duration of pain	90% free of pain and oral lesions after 6 days of treatment and afebrile after 3 days of treatment. Treatment considered "good or very good" in 85% of children	Subjective outcome measures limit validity of findings

*Where studies were not published fully in English, information regarding the age range of children included in analysis was not always available.

HSV, herpes simplex virus.

Treatment of herpes simplex gingivostomatitis with aciclovir in children: a randomised double blind placebo controlled study.

Amir J¹, Harel L, Smetana Z, Varsano I.

Patient group*	Study type (level of evidence)	Outcomes	Key result
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[Herpetic stomatitis-gingivitis in children: controlled trial of acyclovir versus placebo].

[Article in French]

Ducoulombier H, Cousin J, Dewilde A, Lancrenon S, Renaudie M, Steru D, Wattre P.

20 children (mean age 2 years) presenting within 96 h of symptom onset with positive isolation of HSV in cell culture

Randomised double blind placebo controlled trial (level Ic, Jadad = 4)

Duration of pain
Hypersalivation
Fever
Duration of oral lesions

Significant improvement in pain and hypersalivation in treatment group. Mean duration of pain 4.3 days in aciclovir group vs 5.0 days in placebo group ($p < 0.05$)

[Herpetic gingivostomatitis in children: the clinico-epidemiological aspects and findings with acyclovir treatment. A report of the cases of 162 patients].

[Article in Italian]

Cataldo F¹, Violante M, Maltese I, Traverso G, Paternostro D.

162 immunocompetent children with herpetic gingivostomatitis (peak age of incidence 9–28 months)

Retrospective clinical and epidemiological study (level IIc)

Time to symptom regression
Epidemiological aspects of HSV gingivostomatitis

More rapid symptom regression in children treated with 5–6-day course of aciclovir

Mueller R, Weigand KH. The treatment of herpetic gingivostomatitis with aciclovir suspension. *Der Kinderarzt* 1988;**19**:1189–92.

41 children with herpetic gingivostomatitis treated with aciclovir

Non-blind, uncontrolled, open study (level IIc)

Duration of oral lesions
Duration of pain

90% free of pain and oral lesions after 6 days of treatment and afebrile after 3 days of treatment. Treatment considered "good or very good" in 85% of children

Clinical bottom line

- ▶ Oral aciclovir given early in primary herpes gingivostomatitis has been shown to reduce duration of symptoms, improve healing of oral lesions and reduce infectivity of affected individuals. (Grade B)
- ▶ Current evidence supports the use of oral aciclovir (15 mg/kg/five times a day for 7 days) in cases of primary herpes gingivostomatitis in immunocompetent children presenting within 72 h of symptom onset. (Grade B)



**THANK YOU FOR
YOUR ATTENTION**