

Treatment of all types of candidiasis stomatitis in children and adults.

Sharipova Nazifa Nasimovna

NamSU Department of Anatomy and Physiology
Senior Lecturer

Annotation: Candidiasis stomatitis, commonly referred to as oral thrush, is a fungal infection caused by the overgrowth of *Candida* species, particularly *Candida albicans*. This condition affects both children and adults, with varying clinical presentations and therapeutic challenges. Effective treatment involves antifungal medications, lifestyle modifications, and addressing underlying causes. This article presents a comprehensive review of the types of candidiasis stomatitis, treatment strategies, and outcomes in pediatric and adult populations.

Keywords: Candidiasis stomatitis, oral thrush, antifungal treatment, *Candida albicans*, pediatric stomatitis, adult stomatitis, antifungal resistance, oral hygiene.

Candidiasis stomatitis, or oral thrush, is a common oral mucosal infection caused by the yeast *Candida albicans*. It is most frequently observed in infants, immunocompromised individuals, and patients undergoing long-term antibiotic or corticosteroid therapy. In healthy individuals, *Candida* exists as a commensal organism, but when the balance of the oral microbiome is disrupted, it can proliferate, leading to infection.

In children, particularly newborns, candidiasis stomatitis often results from the immaturity of the immune system and exposure during breastfeeding. In adults, risk factors include dentures, diabetes, smoking, and immunosuppressive conditions such as HIV/AIDS. The aim of this article is to provide an overview of the treatment modalities for all types of candidiasis stomatitis, comparing therapeutic approaches for both children and adults, and highlighting clinical outcomes.

Candidiasis stomatitis, also known as oral thrush, is a fungal infection of the mouth caused by the *Candida* species, most commonly *Candida albicans*. It affects both children and adults, and treatment often depends on the severity of the infection and the patient's immune status.

Here's an overview of treatment approaches for different types of candidiasis stomatitis:

1. Acute Pseudomembranous Candidiasis (Thrush)

- In Children:

- Topical Antifungals: Nystatin oral suspension or Clotrimazole mouth gel (applied to the affected areas).
- Hygiene: Cleaning pacifiers, bottle nipples, and toys to prevent re-infection.
- Breastfeeding: If the child is breastfeeding, both the mother and child may need treatment to avoid cross-infection.

- In Adults:

- Topical Antifungals: Nystatin or Clotrimazole lozenges.
- Systemic Antifungals: In more severe cases, Fluconazole or Itraconazole may be prescribed.
- Hygiene: Dentures should be cleaned thoroughly to avoid recurrence.

2. Chronic Atrophic Candidiasis (Denture Stomatitis)

- In Adults (usually elderly patients with dentures):

- Topical Antifungal Treatment: Nystatin or Miconazole gel applied directly to the dentures and gums.
- Denture Care: Remove dentures overnight and soak them in antifungal solutions or chlorhexidine.
- Adjustment of Dentures: Poorly fitting dentures can exacerbate the condition, so adjusting or replacing them may be necessary.

3. Erythematous (Atrophic) Candidiasis

- In Children:

- Topical Antifungal Treatment similar to acute pseudomembranous candidiasis.
- Oral Hygiene: Maintain proper oral hygiene by brushing and using antiseptic mouth rinses.

- In Adults:

- Systemic Antifungals if topical treatments do not resolve the infection.

- Address Predisposing Factors: Dry mouth, recent antibiotic use, or immune suppression.

4. Angular Cheilitis (Perleche)

- Both Children and Adults:

- Topical Antifungal Creams: Clotrimazole or Miconazole applied to the corners of the mouth.

- Barrier Ointments: Petroleum jelly or zinc oxide to protect the skin.

- Address Nutritional Deficiencies: Iron or vitamin B deficiencies can predispose one to angular cheilitis.

General Considerations for Treatment:

- Maintain Good Oral Hygiene: Regular brushing and antiseptic rinses can help reduce fungal overgrowth.

- Dietary Adjustments: Reducing sugar intake may help prevent the growth of *Candida*.

- Manage Underlying Conditions: Treating underlying causes such as diabetes or immunosuppression is crucial to prevent recurrent infections.

- Preventive Antifungal Therapy: In high-risk individuals (e.g., those on chemotherapy or with HIV), preventive antifungal medications may be necessary.

Systemic Antifungal Therapy

For severe or recurrent cases, systemic antifungal medications like Fluconazole, Itraconazole, or Amphotericin B may be required. These treatments should be guided by a healthcare professional, especially in immunocompromised patients.

Always consult with a healthcare provider for a tailored treatment plan, especially for children, as some medications may not be suitable for them.

The difference in treatment approaches between pediatric and adult patients is attributed to various factors, including differences in immune system maturity, oral microbiome composition, and the presence of underlying systemic diseases. Topical treatments remain highly effective in pediatric populations due to localized infection and fewer systemic risk factors.

In contrast, systemic therapy is often necessary for adults, particularly those with compromised immune systems or widespread infection. The emergence of antifungal resistance, particularly in adults, highlights the need for judicious use of antifungals and the importance of susceptibility testing before initiating treatment.

Preventive strategies also vary between age groups. In children, maintaining proper oral hygiene and breastfeeding hygiene can reduce the risk of recurrence. In adults, managing predisposing conditions such as diabetes and reducing smoking are essential preventive measures.

Conclusions:

The treatment of candidiasis stomatitis is highly effective when tailored to the patient's age, underlying conditions, and the extent of the infection. Topical antifungals are the mainstay of therapy in children, while systemic agents are often necessary for adults, particularly those with recurrent or resistant infections.

Early Diagnosis and Targeted Treatment: Ensuring early identification of candidiasis stomatitis and performing fungal culture testing in recurrent cases can improve treatment outcomes.

Preventive Measures: Emphasize the importance of oral hygiene, both in children and adults, to reduce the risk of candidiasis stomatitis.

Addressing Antifungal Resistance: More research is needed to develop new antifungal agents and alternative therapies, particularly in light of increasing resistance to commonly used medications.

Immunocompromised Populations: Special attention should be given to high-risk groups, including HIV-positive individuals and those on immunosuppressive therapies, to prevent recurrent and severe candidiasis.

References.

1. Белуанин В.Л. Механизмы клеточной защиты организма при кандидозе. — Архив патологии, 2000. — Т. 62. — № 6. — С. 10-13.
2. Кунелскава В.Я., Мачулин А.И. Роль микотической флоры в развитии воспалительных заболеваний у детей. — Вестн. отоларингол., 2006; 5: 50.
3. Ellepola A.N., Samaranayake L.P. Antimycotic agents in oral candidosis: an overview: 1. Clinical variants. Dent Update, 2000; 27: 111-116.
4. Coogan M.M., Greenspan J., Challacombe S.J. Oral lesions in infection with human immunodeficiency virus. Bull World Health Organ., 2005; 83: 700-706.

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5. Webb B.C., Thomas C.J., Willcox M.D. et al. Candida-associated denture stomatitis. Aetiology and management: a review. Part 3. Treatment of oral candidosis. Aust Dent J., 1998; 43: 244-249.
 6. Ninane J.A. Multicentre study of fluconazole versus oral polyenes in the prevention of fungal infection in children with hematological or oncological malignancies. Multicentre study group. Eur J Clin Microbiol Infect Dis., 1994; 13: 330-337