OROPHARYNGEAL CANDIDIASIS: COMPARISON OF CLINICAL CHARACTERISTICS OF ACUTE AND CHRONIC COURSE

Kamola A. Ismatova
Tashkent Pediatric Medical Institute (Tashkent, Uzbekistan)
Shakhlo B. Sabirova
Samarkand State Medical University (Samarkand, Uzbekistan)
ismatovakamola21@gmail.com

Abstract. *Oropharyngeal candidiasis (OPC) is one of the most common fungal infections of the oral mucosa, pharynx and larynx caused by yeast-like fungi of the genus Candida. Candida albicans remains the most common pathogen, but the clinical significance of other species (C. glabrata, C. tropicalis, C. parapsilosis) is increasing. The aim of this review is to summarize current data on the clinical characteristics of acute and chronic course of OFC, analysis of risk factors, diagnostic methods and approaches to therapy. The importance of immune status, background diseases and iatrogenic factors in the pathogenesis of the disease is considered, and modern classification approaches, differential diagnostics and therapeutic strategies are presented. The need for an individualized approach and preventive measures to prevent relapses is substantiated.*

Key words: *oropharyngeal candidiasis, Candida albicans, acute course, chronic course, mycoses, clinical forms, antifungal therapy.*

Introduction. Fungal infections of humans remain an important problem of clinical mycology, especially in the context of the growth of iatrogenic conditions, chronic diseases and immunodeficiencies. The genus Candida unites about 200 species of yeast-like fungi, of which about 20 are capable of causing diseases in humans. Oropharyngeal candidiasis occupies a significant place among mycoses of the mucous membrane, especially in children, elderly and immunocompromised patients [1, 2, 6, 7, 11].

Candida albicans is the most common pathogen, possessing high adhesive capacity, pronounced virulence factors and the ability to form biofilms. However, in recent decades, the clinical significance of other Candida species resistant to traditional antifungals has increased, especially in patients receiving long-term antibacterial or immunosuppressive therapy.

OPC can occur in both acute and chronic forms, differing in pathogenesis, clinical picture and treatment approaches. Against the background of a decrease in the immune status, the disease acquires a recurrent or persistent nature, requiring complex diagnostics and therapy [3, 8, 10, 12].

Epidemiology and risk factors. The incidence of OFC varies depending on age and concomitant conditions. In adults, it can reach 42.9%, in newborns - about 5%, in infants - up to 10%, and in the elderly - about 10% [4, 13, 17]. The high-risk group includes patients with carbohydrate metabolism disorders (in particular, diabetes), immunodeficiencies, oncohematological and endocrine diseases.

Risk factors for the development of oral candidiasis also include:

– metabolic disorders (diabetes mellitus, hypovitaminosis);
– long-term antibacterial therapy;
– hormonal drugs (GCS, cytostatics);
– dysbacteriosis and immunodeficiency states;
– wearing dentures (especially with poor hygiene);
– artificial feeding in children and morphofunctional immaturity of the mucosa.

In hospitalized patients, especially in intensive care units, candidiasis carriage can reach 88% [5, 14, 18].

Clinical features of acute and chronic oropharyngeal candidiasis. Oropharyngeal candidiasis is a common fungal disease caused by yeast-like fungi of the genus Candida, mainly Candida albicans, affecting the mucous membrane of the oral cavity and pharynx. Depending on the nature of the clinical course, acute and chronic forms of the disease are distinguished, each of which has its own characteristics of clinical manifestations, pathogenetic mechanisms and approaches to therapy [6, 15, 19].

Acute oropharyngeal candidiasis. The acute form of the disease is characterized by a sudden onset, a pronounced inflammatory reaction from the mucous membrane and the presence of general symptoms of intoxication. Most often, acute oropharyngeal candidiasis develops in patients with weakened immunity, after courses of antibacterial or hormonal therapy, as well as in the presence of metabolic or chronic somatic diseases.

The main clinical manifestations of acute candidiasis include:

– Plaques on the mucous membrane: white, cheesy or filmy formations localized on the tongue, cheeks, gums, soft palate. Plaques are easily removed, revealing a hyperemic or eroded surface underneath, often with pinpoint hemorrhages.

– Hyperemia and edema of the mucous membrane: inflamed areas become painful upon palpation and may be accompanied by maceration and the formation of erosions.

Sensory disturbances: burning sensation, itching and pain, which intensifies when eating food, especially hot and spicy food; taste disturbances are possible.

– Symptoms of general intoxication: subfebrile body temperature, weakness, fatigue, malaise, especially pronounced in children and elderly patients.

According to clinical classification, acute oropharyngeal candidiasis can occur in two forms:

1. Limited form – characterized by localized damage to the mucous membrane (tongue, soft palate, inner surface of the cheeks) and usually occurs in mild cases of the disease, without pronounced immune disorders.

2. Diffuse form – accompanied by damage to large areas of the mucous membrane of the oral cavity and pharynx. It is more often observed in patients with immunodeficiencies (including HIV infection, oncohematological diseases), after long-term treatment with antibiotics or with severe systemic disorders. It is characterized by more pronounced symptoms and requires systemic antifungal therapy [7, 9, 16, 20, 25].

Thus, acute oropharyngeal candidiasis requires timely detection, clinical assessment of severity and selection of adequate therapy taking into account the general condition of the patient and the course of the disease.

Chronic oropharyngeal candidiasis. Chronic oropharyngeal candidiasis is a long-term pathological condition characterized by less pronounced general symptoms, but a tendency to relapse, resistance of the pathogen to therapy and association with chronic somatic diseases. From a clinical point of view, chronic candidiasis manifests itself in several forms, among which the most common are hyperplastic and atrophic forms, as well as recurrent and persistent course of the disease.

The hyperplastic form is characterized by the formation of dense, grayish-white plaques, tightly attached to the surface of the mucous membrane. The plaques are difficult to remove, and may cause injury to the mucous membrane and the appearance of pinpoint hemorrhages. This form is characterized by persistent inflammation, and in the presence of background pathology of the mucous membrane (leukoplakia, chronic glossitis) can be considered a precancerous condition.

The atrophic form is manifested by thinning of the mucous membrane, pronounced hyperemia, dryness and smoothness of the relief. The tongue, palate and inner surface of the cheeks are most often affected. Patients complain of constant burning, which intensifies when talking, eating or when exposed to temperature irritants. This form is especially characteristic of the elderly, as well as people who have been using dentures for a long time.

According to the nature of the course, chronic candidiasis is divided into:

– Relapsing form, characterized by periods of clinical remission, alternating with exacerbations. Relapses are provoked by the persistence of forms by predisposing factors, such as immunodeficiency states, microbiota disorders (dysbacteriosis), the need for or repeated use of antibiotics, glucocorticosteroids and other immunosuppressants. Patients periodically note the appearance of plaque, burning and discomfort in the oral cavity.

– Persistent form, in which clinical manifestations persist constantly, without periods of significant improvement. The course is characterized by low efficiency of standard therapy and requires a comprehensive diagnostic examination, assessment of the sensitivity of the fungal flora and the immunological status of the patient. There is often a need to correct background pathology and prescribe systemic therapy [8, 21, 24].

Chronic forms of the disease require an individualized and comprehensive approach to treatment, including not only the prescription of antifungal drugs, but also the elimination or correction of predisposing factors. Thus, a clear distinction between acute and chronic oropharyngeal candidiasis is of great practical importance. Understanding the clinical and pathogenetic differences allows for timely diagnosis of the disease, selection of optimal therapeutic tactics and implementation of measures to prevent relapses and complications, especially in patients from risk groups.

4. **Differential diagnostics**

OPC must be distinguished from:

– Streptococcal and staphylococcal tonsillitis;

– Herpetic stomatitis;

– Leukoplakia, lichen planus, Behcet's syndrome, etc.

Clinical examination should be supplemented by:

– Microscopy of smears to detect pseudomycelium;

– Cultural examination on nutrient media;

– If necessary, tests for sensitivity to antimycotics.

Principles of therapy and prevention of oropharyngeal candidiasis. Treatment of oropharyngeal candidiasis should be based on the individual characteristics of the clinical picture, the form of the disease (acute or chronic), the degree of expression of inflammatory changes, as well as the general condition of the patient and the presence of concomitant pathologies. A comprehensive therapeutic approach allows for clinical recovery, reduces the risk of chronicity of the process and prevents relapses.

Local therapy. It is the first stage of treatment, especially in mild and limited cases of the disease. It involves the use of antifungal drugs in the form of:

– Solutions, gels and lozenges with antifungal agents, the most commonly used are nystatin, clotrimazole and capsamycin. These drugs provide a direct effect on the lesions.

– Antiseptic solutions for treating the oral mucosa (for example, chlorhexidine, miramistin), which help reduce bacterial and fungal contamination and prevent secondary infection.

Systemic therapy. It is indicated for moderate and severe cases of the disease, diffuse and chronic forms of candidiasis, as well as in patients with a weakened immune status.

The most commonly used are:

– Fluconazole is the most commonly prescribed systemic antifungal agent, effective against most strains of Candida albicans.

– Itraconazole is used in the presence of resistance to fluconazole or for lesions caused by other types of Candida. The duration of systemic therapy is determined by clinical dynamics, but usually ranges from 10 to 21 days with subsequent observation [12, 13, 22].

Supportive and corrective measures. Effective treatment is impossible without eliminating predisposing factors. Important:

– Correct background conditions, including hypovitaminosis, iron deficiency, hormonal and metabolic disorders.

– Normalize the intestinal microbiota, which is achieved by using probiotics and prebiotics, especially in the presence of dysbacteriosis.

– Ensure thorough oral hygiene, especially for patients with dentures. Dentures must be treated daily, not left overnight, and regularly professionally cleaned.

– Strengthen the patient's immune status - through a balanced diet, sanitation of foci of chronic infection, correction of immunodeficiency states if necessary.

Prevention. Prevention of oropharyngeal candidiasis is aimed at preventing primary infection, relapses of the disease and complications. The main preventive measures include:

– Control and limitation of the unjustified use of antibacterial drugs, especially broad-spectrum ones, in order to preserve the normal microflora of the mucous membrane.

– Conducting regular sanitation of the oral cavity, especially for patients using dentures, suffering from caries, periodontal disease and other dental diseases.

– Timely detection and treatment of underlying chronic pathologies, such as diabetes mellitus, gastrointestinal diseases, immunodeficiency states.

– Preventive examinations by a dentist and therapist, especially for patients from risk groups (the elderly, newborns, oncohematological patients, patients on long-term drug therapy) [3, 13, 23].

Early detection of oropharyngeal candidiasis signs and timely treatment can significantly reduce the risk of complications, prevent chronicity of the process and improve the quality of life of patients. Effective prevention plays a key role in reducing the prevalence of the disease, especially in the context of the growth of immunocompromised states and iatrogenic factors.

Conclusion. Oropharyngeal candidiasis is a heterogeneous group of fungal infections that require a differentiated approach to diagnosis and treatment. Distinguishing between acute and chronic course is of fundamental importance for choosing effective therapy and preventing relapses. An integrated approach, including correction of background conditions, use of antifungal agents and restoration of microbiota, allows achieving stable remission and preventing the development of complications, especially in risk groups. In the context of growing antibiotic resistance and an increase in the number of immunocompromised patients, the problem of OPC remains clinically relevant.

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