

**MODERN METHODS OF DIAGNOSIS AND TREATMENT OF CHRONIC TONSILLITIS****Ismoilov, I.I.**

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**Abstract**

Chronic tonsillitis is one of the most common pathologies of the ENT organs and accounts for a significant portion of oropharyngeal diseases. According to various studies, the prevalence of chronic tonsillitis among the adult population ranges from 10 to 15%, and in certain populations, it can reach 37-63% [5]. The disease is characterized by a long-term inflammatory process in the palatine tonsils, accompanied by impairment of their barrier and immunological functions. Chronic tonsillitis can lead to the development of systemic complications, including rheumatic damage to the heart, joints, and kidneys. In recent years, modern diagnostic technologies have been actively introduced, including endoscopic methods, ultrasound diagnostics, compression elastography, and microbiological and molecular genetic studies. These methods allow for a more accurate determination of the disease form and the selection of optimal treatment strategies.

**Keywords**

chronic tonsillitis, palatine tonsils, tonsillectomy, laser therapy, immunomodulators.

**Introduction.** Chronic tonsillitis (CT) is one of the most common inflammatory diseases of the oropharynx and is a long-term infectious-allergic process in the palatine tonsils. Despite significant progress in otorhinolaryngology, the diagnosis and treatment of this disease remain a pressing issue worldwide. According to various epidemiological studies, the prevalence of chronic tonsillitis among the adult population ranges from 10% to 15%, reaching 30%-40% in some regions [5]. The high prevalence of the disease is attributed to frequent upper respiratory tract infections, reduced immune reactivity, and adverse environmental factors.

The palatine tonsils are an important component of the immune system and are part of the Waldeyer's lymphoepithelial ring. They perform a barrier function, protecting the body from pathogenic microorganisms entering the respiratory tract. Normally, the tonsils are involved in the formation of local and systemic immunity. However, with prolonged exposure to infectious agents, their protective function can be impaired, leading to the development of a chronic inflammatory process [10].

The pathogenesis of chronic tonsillitis involves the colonization of the palatine tonsil lacunae by pathogenic microflora, including *Streptococcus pyogenes*, *Staphylococcus aureus*, *Haemophilus influenzae*, and other microorganisms. In recent years, particular attention has been given to the role of bacterial biofilms, which make microorganisms resistant to antibacterial therapy and contribute to the chronic course of the disease. The formation of biofilms significantly reduces the effectiveness of standard treatment methods and necessitates the use of comprehensive therapeutic approaches [4].

The clinical manifestations of chronic tonsillitis are diverse and include a sore throat, a foreign body sensation, bad breath, the presence of caseous plugs in the tonsillar lacunae, enlarged regional lymph nodes, and a subfebrile temperature. In toxic-allergic forms of the disease, systemic manifestations may be observed, including increased fatigue, joint pain, cardiac disorders, and signs of systemic toxicity [2].

The modern classification of chronic tonsillitis distinguishes two main forms of the disease: compensated and decompensated. In the compensated form, the inflammatory process is limited to the tonsils and is not accompanied by pronounced systemic manifestations. The

decompensated form is characterized by the development of complications such as peritonsillar abscess, rheumatic fever, glomerulonephritis, and other systemic diseases [2].

The diagnosis of chronic tonsillitis is based on a comprehensive assessment of clinical symptoms, medical history, and the results of laboratory and instrumental studies. Traditional diagnostic methods include pharyngoscopy, bacteriological examination of smears from the tonsillar lacunae, and laboratory blood tests. However, new diagnostic technologies have been actively implemented in recent years, enabling a more accurate assessment of the tonsils' condition and the identification of latent forms of the disease [4].

One promising diagnostic method is ultrasound compression elastography, which makes it possible to assess the structure and elasticity of the palatine tonsil tissues. Studies have shown that in patients with the simple form of chronic tonsillitis, a dense tonsil structure is observed in 64.1% of cases, whereas the toxic-allergic form is characterized by a looser tissue structure (58.6%) [3].

Microbiological diagnosis is also of great importance, as it allows for the identification of the causative agent and its sensitivity to antibacterial drugs. In recent years, molecular genetic research methods have been increasingly used, which make it possible to detect pathogenic microorganisms even at low concentrations and to determine their genetic characteristics.

The treatment of chronic tonsillitis remains a complex challenge in modern otorhinolaryngology. Conservative therapy includes the debridement of the palatine tonsillar lacunae, the use of antibacterial drugs, immunomodulators, and physiotherapy. Modern therapeutic methods also include laser therapy, ultrasound debridement, and cryotherapy [12].

If conservative treatment is ineffective, surgical intervention is performed. The primary surgical treatment is tonsillectomy - the removal of the palatine tonsils. This operation is indicated for frequent relapses, the presence of complications, or the decompensated form of chronic tonsillitis. Modern surgical technologies include laser tonsillectomy, radiofrequency surgery, and coblation, which reduce the invasiveness of the procedure and accelerate patient recovery [7].

Thus, the diagnosis and treatment of chronic tonsillitis remain a pressing issue, requiring further improvement of diagnostic and therapeutic methods. Modern technologies significantly increase the effectiveness of treatment and reduce the risk of complications.

**Materials and Methods.** The study was conducted at the ENT department of the multidisciplinary clinic of Tashkent State Medical University from 2021 to 2025. From the total number of patients observed, 52 patients diagnosed with chronic tonsillitis were included in the study.

The age of the patients ranged from 18 to 55 years, with a mean age of  $34.6 \pm 2.1$  years. Among those examined, 31 (59.6%) were women and 21 (40.4%) were men.

All patients underwent a comprehensive clinical and laboratory evaluation, which included taking a medical history, pharyngoscopy, endoscopic examination of the oropharynx, bacteriological examination of smears from the crypts of the palatine tonsils, a complete blood count, and immunological studies.

Additionally, modern diagnostic methods were used in some patients, including ultrasound of the palatine tonsils and compression elastography to assess the structure of the lymphoid tissue.

The data was statistically processed using methods of descriptive statistics. The significance of differences between the groups was assessed using Student's t-test. Differences were considered statistically significant at  $p < 0.05$ .

**Results and Discussion.** This study analyzed the clinical manifestations of chronic tonsillitis in 52 patients. The main complaints reported by patients were recurrent sore throat (84.6%), the presence of caseous plugs in the tonsillar crypts (76.9%), bad breath (63.5%), a foreign body sensation in the throat (51.9%), and increased fatigue (46.2%).

Pharyngoscopic examination revealed that hyperemia of the palatine arches was observed in 41 (78.8%) patients, enlargement of the palatine tonsils in 35 (67.3%), and the presence of caseous plugs in 40 (76.9%) patients.

Bacteriological examination of smears from the palatine tonsil lacunae most commonly revealed the following microorganisms:

- Streptococcus pyogenes - 36.5%
- Staphylococcus aureus - 28.8%
- Haemophilus influenzae - 17.3%
- mixed microflora - 17.4%.

Analysis of laboratory parameters showed that an elevated leukocyte count was observed in 32 (61.5%) patients, and an increased ESR was found in 27 (51.9%).

According to ultrasound results, changes in the structure of the palatine tonsils were detected in 38 (73.1%) patients. In patients with the compensated form of the disease, a dense tonsil structure was noted in 61.5% of cases, whereas in the toxic-allergic form, a looser tissue structure was observed, which is consistent with data from current research [3].

After a course of conservative treatment, positive dynamics were observed in 34 (65.4%) patients. The incidence of sore throat complaints decreased from 84.6% to 28.8% ( $p < 0.01$ ), and the presence of caseous plugs decreased from 76.9% to 23.1% ( $p < 0.05$ ).

In 18 (34.6%) patients, conservative therapy was insufficiently effective, and they subsequently underwent tonsillectomy. Following surgical treatment, complete resolution of symptoms was observed in 16 (88.9%) patients, while 2 (11.1%) patients continued to experience periodic discomfort in the throat.

Analysis of postoperative complications showed that minor bleeding occurred in 2 (3.8%) patients, which is consistent with findings from international studies.

The results obtained confirm the effectiveness of an integrated approach to the treatment of chronic tonsillitis, which combines conservative therapy with modern surgical methods.

**Conclusion.** Chronic tonsillitis remains one of the most common pathologies of the upper respiratory tract and poses a serious challenge in modern otorhinolaryngology. The high prevalence of the disease, frequent recurrences, and the risk of developing systemic complications necessitate the improvement of diagnostic and treatment methods for this pathology.

This study has shown that a comprehensive examination of patients with chronic tonsillitis, incorporating clinical, laboratory, and instrumental diagnostic methods, allows for a more precise determination of the disease form and the selection of an optimal treatment strategy.

Modern diagnostic methods, such as endoscopic examination of the oropharynx, ultrasound diagnostics, and compression elastography, significantly improve diagnostic accuracy and enable the detection of structural changes in the palatine tonsils in the early stages of the disease. Conservative therapy for chronic tonsillitis, which includes cleansing the tonsillar lacunae, antibacterial therapy, immunomodulators, and physiotherapeutic treatments, has proven highly effective in most patients. However, in the decompensated form of the disease or with frequent relapses, surgical intervention remains the optimal treatment method. Modern surgical technologies, including laser tonsillectomy and coblation, help reduce the invasiveness of the operation and shorten the patient rehabilitation period.

Thus, the application of modern methods for diagnosing and treating chronic tonsillitis allows for increased therapeutic effectiveness, a lower incidence of complications, and an improved quality of life for patients.

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