



## Diagnosis and Tactics of Treatment of Bilateral Peritonsillar Abscess

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**ABSTRACT:** In this article presents a clinical case of bilateral peritonsillar abscess on patient 43 years old. Peritonsillar abscess (PTA) is a serious complication after exacerbation of chronic tonsillitis. It is a cluster of purulent content in peritonsillar tissue. It is dangerous to spread tonsilogenic infection to the area of peritonsillar space and even to the neck tissue. The spread of infection in PTA also occurs in lymphogenic and hematogenic ways, can cause the development of deep neck phlegmon, mediastinitis, tonsilogenic sepsis, which are a direct threat to the patient's life. The prognosis and effectiveness of treatment of such patients depends on timely hospitalization in the ENT hospital, surgical treatment - opening of the peritonsillar abscess and its drainage, as well as targeted complex drug therapy. Modern diagnosis and surgical treatment led to recovery in the usual terms for this pathology.

**Key words:** bilateral peritonsillar abscess, conservative management, hot tonsillectomy, antibacterial therapy: Furasol.

### Introduction

#### The relevance

The relevance of the peritonsillar problem is due to a number of reasons. Firstly, it is the high frequency and prevalence of the disease, which occurs mainly in young people of working age. Secondly, peritonsillar abscesses require emergency specialized surgical care, in conditions of urgent otorhinolaryngology. Thirdly, complications of peritonsillar abscesses are the main cause of death in ENT hospitals, despite the fact that this is one of the most common forms of pathology of urgent ENT service.

The outcome of peritonsillar abscesses, as a rule, is favorable, against the background of a fairly short-term course of the disease and subject to adequate treatment. Meanwhile, the severity of the disease and the high likelihood of a wide variety of complications, requires not only certain medical procedures, but also medical supervision during the period of early convalescence. So, in the acute stage of abscess formation, severe local complications may occur, which, given the relatively rare development, can give a high percentage of deaths, which is one of the main causes of death in ENT practice. In the period of convalescence and at a longer time after recovery, the development of metatonsillar somatic diseases is highly likely, i.e. such forms of pathology that not only significantly increase the overall morbidity of the population, but also lead to labor losses, disability of a large number of patients, and in severe cases, to fatal outcomes.

The cause of a peritonsillar abscess may be repeated angina, as well as foreign bodies of the tonsils, trauma to the tonsillar tissue and peritonsillar tissue. In young children, this disease occurs mainly after traumatic damage to the tonsils. In children, it is rare, due to the low incidence of chronic tonsillitis and morphological features of the structure of the tonsils. Lacunae at this age are slit-like, superficial, and poorly branched, which prevents infection from reaching the connective tissue capsule and spreading to the peritonsillar tissue. The disease can be odontogenic as a result of the spread of infection to the peritonsillar tissue from carious teeth. The development of the disease contributes to a decrease in the body's resistance, the delay of pus in the lacunae of the tonsils.

According to clinical and morphological changes, there are three forms of peritonsillar tissue inflammation: edematous, infiltrative, and absceding. Edematous form of inflammation is very rare, infiltrative in 15-20% and in most cases there is an absceding form — in 75-90% of patients.

There are several localizations of peritonsillar abscess:

- Supratonsillary localization (anterolateral), occurs in 73% of cases (abscess is localized between the amygdala capsule and the upper part of the anterior palatine arch);
- Lower localization, occurs in 7% of cases (abscess is localized between the lower pole of the amygdala and the side wall of the pharynx);
- Side localization (lateral), occurs in 4% of cases (the abscess is localized between the middle part of the amygdala and the side wall of the pharynx);
- Posterior localization, occurs in 16% of cases (abscess is localized between the capsule of the palatine tonsil and the posterior arch);

**In anterolateral or anterior peritonsillitis**, the patient is subjectively concerned about the difficulty and pain of opening the mouth – trismus. There is a sharp bulging of the upper pole of the amygdala along with the palatine arches and soft palate to the middle line, the surface of which is tense and hyperemic, the uvula is displaced in the opposite direction, the amygdala is also pushed down and posteriorly.

**Posterior peritonsillitis**, localized in the tissue between the posterior arch and the amygdala, can also spread to the side wall of the pharynx, in the same area there is swelling. The palatine amygdala and anterior arch may be little changed, the uvula and soft palate are usually swollen and infiltrated, and there may be nasal speech.

**Lower peritonsillitis** is less pronounced pharyngoscopic signs. There is only swelling and infiltration of the lower part of the anterior arch, but the subjective manifestations of the disease in this localization are significant. The process usually involves the adjacent part of the root of the tongue, sometimes there is swelling of the lingual surface of the epiglottis, which accompanied by a painful protrusion of the tongue.

**External or lateral peritonsillitis** is less common than other forms, but it is the most severe, with this localization, swelling and infiltration of the soft tissues of the neck on the side of the lesion, torticollis, and trismus are expressed. On the part of the pharynx, inflammatory changes are less pronounced. There is a moderate swelling of the entire amygdala and swelling of the surrounding tissues.

In all types of PTA, the general status of the patient deteriorates sharply and accompanied by high temperature.

PTA according to literary sources is more common at a younger age, almost one-sided. Bilateral PTA is extremely rare. According to the ENT department of CCH №1, there have been three cases of bilateral PTA in the past 5 years. Based on the above, we present a case from practice.

### **Clinical case**

Nazarbekov Dilshod, 43 years old, was admitted on 10.11.2019 to the ENT department of the city hospital №1 with complaints of swelling in the submandibular region on both sides, lethargy, pain when swallowing, difficulty opening the mouth, and an increase in body temperature to 39°C. According to the patient, he fell ill on 07.11.2019, when the temperature rose to 38.5°C, angina was diagnosed: he was treated at home, despite which the above symptoms continued to bother the patient. There was a swelling in the submandibular area on both sides, it was difficult to swallow, was salivation, which forced the patient to turn for emergency assistance to the ENT department.

**Objectively:** The condition of the patient on admission moderately serious. Fever-39°C. The patient conscious, sluggish. Shows an expressed concern during the examination. The skin is pale and clean. Breathing in the lungs, vesicular carried out evenly on both sides. BP 120/80 mm.Hg. Pulse 100/min, heart sounds muffled, rhythmic. Defecation and diuresis are normal.

### **ENT status**

**Rhinoscopy:** nasal breathing is satisfactory, with a small amount of mucus in the common nasal passages. The nasal septum is along the middle line.

Enlarged, painful lymph nodes are detected in the right submandibular and lateral surface of the neck. The trismus of the chewing muscles determined.

**Pharyngoscopy:** on both sides, the right and left palatine tonsils are sharply enlarged, hyperemic, and protrude to the midline. The anterior arches are edematous, infiltrated in the antero-upper part. There are no raids. The swelling extends to the uvula, the back wall of the pharynx is moderately hyperemic.

### Laboratory data

In clinical blood analysis: RBCs –  $4,53 \times 10^{12}/l$ , WBCs –  $17,0 \times 10^9/l$ , Hb - 129g/l, ESR – 14 mm/h.

General urine analysis: without pathology.

Biochemical blood analysis: ALT – 96,5 mmol/l, AST – 47,6 mmol/l, Bilirubin – 13,9 mmol/l, urea – 5,4 mmol/l, creatinine – 11,3 mmol/l.

C-reactive protein: RF – 4 iu/ml, ASLO – 400 iu/ml, CRP – 24 iu/ml.

ECG-sinus rhythm with a heart rate of 96 beats/min, the normal position of the EOS.

Based on clinical and laboratory methods of examination, the patient was diagnosed with exacerbation of chronic tonsillitis, complicated by bilateral PTA.

### Treatment

After a diagnostic puncture of the peritonsillar space, purulent contents were obtained on both sides.

Under local anaesthesia with Lidocaine 10% - 2,0 (application) incision with a scalpel right and left of the front arches at the point of greatest protrusion, clamping the wound expanded and opened an abscess front upper location. About 5.0 liquid pus was released. Take a swab for bacterial analysis.

After opening the peritonsillar abscess, we performed a hot tonsillectomy with the patient's consent. The patient performed the surgical procedure satisfactorily.

### Conservative management:

- antibacterial therapy - (Ceftriaxone 1.0 ED, 2 times a day intramuscularly, 5 days);
- anti-inflammatory therapy - (Dexamethasone 4ml, 1 time per day intramuscularly, 3 days);
- analgesic therapy - (Analgin 25% - 2.0 + Dimedrol 1% - 1.0 intramuscularly);
- detoxification therapy - (Sodium chloride 0.9% -200.0 + Ascorbic acid - 6.0, 1 time per day intravenous drip);

**Local treatment:** for rinsing, Furasol is prescribed 3 times a day for 7 days, and a semi-alcoholic compress is prescribed in the submandibular region.

Patient's condition improved significantly in the following days: he became more active, his appetite improved, and swallowing became less painful. The temperature dropped to low subfebrile numbers.

The swelling in the submandibular area disappeared. During pharyngoscopy, there was a noticeable decrease in the infiltration of the peritonsillar region on both sides. Within three days, the abscess cavities were expanded and cleared of pathological contents. On the 6th day, there was a decrease in inflammatory phenomena. Repeated blood and urine tests indicated their normalization. The patient was discharged on the 7th day of treatment in a satisfactory condition under the supervision of an ENT doctor at the place of residence.

### Conclusion

Surgical dissection and drainage is the therapy of choice for the treatment of peritonsillar abscesses. However, antibiotic therapy is an integral part of the complex treatment of this pathology and prevents the development of local and systemic complications of this infection. The choice of antibacterial therapy depends on the pathogen, but at the initial stage of treatment, preference should be given to broad – spectrum drugs, including antibacterial drugs – mainly of the third generation.

The peculiarity of the presented observation is that this pathology is bilateral, is a rarity, with a more clinically severe course of the disease. In two – way PTA high risk development, also metaconsulting complications. Complex application of surgical and medical treatment of the disease in a hospital led to recovery in the usual time for this pathology.

After tonsillectomy, all patients received antibacterial treatment for 5 days. The research demonstrated a higher therapeutic effectiveness of the Furasol in relieving inflammatory processes. On the background of the use of Furasol pain during swallowing was resolved for 3-4 days, the temperature for the 5th day, by this time also disappeared hyperemia of the mucosa and swelling of the arches, the uvula. On the 5th-7th day, the niches of the tonsils were cleared of plaque.

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