

## THE TREATMENT OF THE ORAL MUCOSA IN CHRONIC RECURRENT APHTHOUS STOMATITIS

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### Abstract

Chronic recurrent aphthous stomatitis is an inflammatory disease of the SOPR, characterized by the appearance of aphthous lesions, a long course with periodic relapses and is often accompanied by diseases of the gastrointestinal tract. Chronic cholecystitis is an inflammatory disease of the gallbladder wall. It develops due to the formation of gallstones in the gallbladder, which leads to stagnation of bile. Periodically occurring and passing inflammations lead to changes in the wall of the gallbladder with the development of chronic calculous cholecystitis in it. Along with the general clinical signs of chronic calculous cholecystitis, changes in the oral mucosa develop.

### Keywords

aphthous stomatitis, mucosa, calculous, pathomorphological, chronic recurrent.

In most cases, with chronic calculous cholecystitis on the oral mucosa, patients feel discomfort caused by swelling, the appearance of aft, erosions, ulceration and other changes. In chronic cholecystitis, we observed patients with chronic recurrent aphthous stomatitis, which were equally common in both women and men. Diagnosis of chronic recurrent aphthous stomatitis is often limited only by objective data of clinical manifestations of the disease on the oral mucosa. An aphthal biopsy on the oral mucosa is usually not performed. The prevalence of chronic recurrent aphthous stomatitis in chronic cholecystitis is highly variable, ranging from 5 to 60% and depending on the studied population, environmental factors and diagnostic criteria. A number of authors believe that the results of treatment of chronic recurrent aphthous stomatitis against the background of digestive diseases are not always satisfactory due to frequent relapses.

**The purpose of the study:** to substantiate pathomorphological studies for the diagnosis of chronic recurrent aphthous stomatitis in chronic calculous cholecystitis.

### Material and methods.

Analysis of the diagnosis and treatment of 72 patients (main group) with chronic recurrent aphthous stomatitis in chronic calculous cholecystitis. According to the degree of severity, they are divided into light, medium and severe forms. The age of the patients ranged from 20 to 65 years (average age  $32.14 \pm 1.7$ ), among them there were 38 women (52.7%), 34 men (47.2%).

The comparison group consisted of 42 patients with chronic recurrent aphthous stomatitis who do not have chronic calculous cholecystitis, divided into mild, moderate and severe forms according to severity. The age of patients was from 20 to 65 years (average age  $36.43 \pm 2.4$ ), among them there were 22 women (52.3%), 20 men (47.6%).

To clarify the diagnosis of chronic recurrent aphthous stomatitis in patients of both groups of patients, complaints were analyzed, anamnesis of the disease was collected, an

objective examination of the oral mucosa and a pathomorphological examination of the material taken from the aphthous lesion were performed.

For cytological examination, the material was taken by smear – imprint method from the surface of the aphthous lesion, that is, by applying a slide to the mucous membrane of the oral cavity. Histological examination of difficult-to-heal afts, for the purpose of cancer prevention, was performed by biopsy. To do this, with the consent of the patient, after local infiltration anesthesia with a scalpel, a tissue sample of 3-4 mm in size was taken. The resulting biopsy material was fixed in laboratory conditions in a 10% solution of neutral formalin solution, 96% alcohol, then poured into paraffin according to the Lloyd method, after which it was placed in a thermostat for a day and paraffin blocks were prepared, ultrathin sections (4-5 mm) were prepared and stained with hemotoxylin - eosin. Pathomorphological examination was performed with a binocular microscope Leika, (Germany), magnification of the lens 10x, 40x, photo documentation was performed with a color Web camera MD130.

All patients of both the main group and the comparison group received local treatment: application anesthesia, antiseptic and enzymatic treatment, application of anti-inflammatory and keratoplastic agents. After receiving the results of treatment, the treatment regimen was supplemented and revised during therapy.

### **THE RESULTS OF THE STUDY**

Patients with chronic recurrent aphthous stomatitis were divided into 3 representative groups by age and gender: with mild, moderate and severe severity of the course – the main (72), the comparison group (42). The number of patients in the main groups was 24, in the comparison groups – 14 patients. The control group consisted of 20 practically healthy individuals who did not have any pathology.

Patients of the main group with a mild form of chronic recurrent aphthous stomatitis complained of the presence of single aphthous formations on the SOPR, minor discomfort, hyperemia and edema. The general condition is not disturbed, pain and burning appeared when eating. Patients of the main group with moderate and especially severe chronic recurrent aphthous stomatitis mainly complained of a violation of the general condition of the body, which was expressed in moderate headaches. Pain and burning were manifested when taking both regular and spicy food. Upon examination of such patients, hyperemia and edema were observed in the area of aphthous rash, covered with fibrinous, sometimes non-erotic plaque, regional lymph nodes are slightly enlarged and painful. In severe form, in 9 patients (12.5%), aphthae turned into an erosive and ulcerative form, which coincided with an exacerbation of chronic calculous cholecystitis, while complaints were of pain in the right hypochondrium, a bitter taste in the mouth, dry mouth was often observed. The patients had icteric sclera and skin, the tongue was covered with a thick yellow coating. Saliva became thick and viscous, and eating was difficult due to hyposalivation, burning and pain in the oral cavity.

An objective examination revealed that the localization of aft on the oral mucosa was more often observed in the cheek and upper lip area than in other parts of the oral mucosa. (Table 1) As can be seen from Table 1, the cheek and upper lip were affected in 45.6% of cases, the lower lip – 41.2%, the sublingual area -7.0%, the tip of the tongue-6.1%. Other areas of the oral mucosa were rarely affected (hard palate, gums, transitional folds).

Pathomorphological examination revealed: thinning of the integumentary squamous epithelium with ulcerative defect (Fig.1), vacuole degenerative changes of the mucous membrane, acanthosis (Fig.2,7), parakeratosis, atrophy (Fig.3). The chronic inflammatory process accompanying this process was a protective reaction of the body and pathohistologically manifested by the development of lympho-histiocytic or focal circular cell infiltrates (Fig.4,10), uneven hyperplasia (Fig.8), subepithelial vesicle (Fig.9). Lymphohystic inflammation is observed in the submucosal layer (Fig.5,6). Cytological examination of smears of typos from the affected surface of the oral mucosa revealed leukocytes, signs of inflammation (Fig.11,12,13). Pathomorphological examination in the main group determines inflammation by fibrinous necrotic type, in the comparison group, fibrinous inflammation mainly prevails.

The results of pathomorphological studies made it possible to differentially approach the existing treatment and add irrigation of the oral cavity with Borjomi alkaline mineral water with a Waterpik WP irrigator and local application of vitamin A. The hepatoprotector ursosan was added to the general treatment at 10-15 mg/kg per night for 1-2 months.

Observation of all patients of the main subgroup with chronic recurrent aphthous stomatitis 12 months after complex pathogenetic treatment allowed to establish the onset of long-term remission in 98.61% of patients, only 1 patient (1.4%) developed a relapse 13 months after the end of the course of treatment. Thanks to the pathomorphological study, the nature of inflammation was proved and the treatment regimen was revised, which led to the best result.

**conclusion.** As a result of the morphological study of erosive and ulcerative lesions of the oral mucosa in chronic recurrent aphthous stomatitis against the background of chronic calculous cholecystitis, the most frequent manifestations of changes were characterized by the development of inflammation and ulceration of the epithelium, the formation of ulcerative defects, hyperplasia of the squamous integumentary epithelium, in some cases atrophy and thinning of the epithelium. The above-mentioned morphological changes in the oral mucosa in chronic recurrent aphthous stomatitis correlate with the clinical data of patients with chronic calculous cholecystitis. The results of the pathomorphological study of chronic recurrent aphthous stomatitis with and without background pathology made it possible to make adjustments to the therapy of combined aphthous lesions of the oral mucosa and chronic calculous cholecystitis. The choice of treatment tactics for chronic recurrent aphthous stomatitis associated with chronic calculous cholecystitis was carried out after conducting and analyzing a pathomorphological study.

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