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# DETECTION AND TREATMENT OF STONES OF THE ORAL MUCOSA USING 3% CITRIC ACID

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**Abstract**
Currently, a theory has been formed that with a change in the pH of the oral mucosa in the alkaline direction, the content of phosphate and bicarbonate ions in the oral mucosa increases, which increases the risk of stone formation in the oral mucosa. It has also been proven that when the protein composition of the oral mucosa changes, the probability of stone formation in the oral mucosa increases. Molar disease of the oral mucosa is one of the most common among other diseases of the mucous glands, the frequency of which ranges from 46% to 77%. Therefore, the study of this topic remains relevant today.

**Keywords**: Sialomitis, mucous glands, gland.



## Introduction

Stones of the glands of the oral mucosa (sialomitis, stones of the oral mucosa) are single or numerous mineral formations that block the excretory ducts of stones of the oral mucosa (glands). Stones of the oral mucosa are found in approximately 1% of the population, mainly in individuals aged 20 to 45 years.In the field of dentistry, among glandular diseases of the oral mucosa, stones of the oral mucosa account for 20.7%-75% of cases. In 85%-95% of cases, stones are located close to each other, i.e., in the submandibular gland and its Charton tube; Examination of patients The complex examination of patients with oral stone disease includes the following methods: general methods; questionnaire, examination, palpation and assessment of the health of the mucous glands, special methods: X-ray examination, sialography, sialometry, ultrasound.

## Methods used today:

Currently, the methods used to eliminate oral mucosa stones are extracorporeal or endoscopic laser mitotripsy, or intra-channel litholysis, performed using 3% citric acid.

Purpose of the study: improvement of methods for diagnosing and treating stones of the oral mucosa using 3% citric acid.

In the surgical dental clinic, 18 patients with oral mucosa diseases were examined, of which 10 were women and 8 were men. In 16 patients, stones of the oral mucosa were found in the submandibular mucosa and the Chartonian tube, and in 2 patients - in the incised mucosa and the Stenon tube. All patients underwent ultrasound, X-ray examination, and sialography. We examined 18 patients with stones of the oral mucosa at the surgical dental clinic. Of these, 10 are women and 8 are men. In 16 patients, stones were detected in the submandibular mucosa

and varontic duct, and in 2 patients - in the incised mucosa and stenonic duct. All patients underwent ultrasound, radiological examination, and sialography. Stones of the oral mucosa were treated with 3% citric acid. The treatment method was as follows: 0.5-1.0 ml of a 3% citric acid solution was administered to the mucous membranes once a day for 30 days. Aspirin was also injected into the parenchyma at a dose of 0.5 ml 3 times a day. A one-month course was conducted to dissolve stones up to 0.5 cm. For patients with larger stones, the treatment course was continued for 3-6 months.

**Results and discussions:**

After exposure to a 3% citric acid solution, the chemical and structural properties of the oral mucosa were monitored. In some cases, an increase in the thickness of the walls of the ducts of the oral mucosa to 10-15 μm was observed, which contributed to the stabilization of the ducts. As a result of the action of 3% citric acid, the stones began to dissolve at all levels. The acid ensures the separation of large stones, and patients were recommended a diet to improve the function of the glands of the oral mucosa. In most cases, the stones were removed from the glandular duct independently. Some patients were recommended light massage and washing of the ducts of the oral mucosa with enzymes (trypsin, chymotrypsin).

**Literature data:**

Current literature data on modern diagnostic and surgical methods indicate the need for the introduction of invasive (surgical intervention) technologies in the treatment of stones of the oral mucosa.

**Conclusions:**

Thus, the method of intracanal dissolution of stones of the oral mucosa using 3% citric acid (intraductal litholysis) has proven itself very effective as a minimally invasive method.This method: allows surgical dissolution of stones, preserves the structure of the mucous tubules, provides highly effective treatment without damaging the skin and mucous membranes.As a result, painless and rapid recovery is observed in the patient, and the probability of recurrence of the disease is sharply reduced.

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