



EFFECTIVENESS OF SINULOR SPRAY IN THE DIAGNOSIS AND COMPLEMENTARY TREATMENT OF ETMOIDITIS IN CHILDREN

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RESUME

Comparative evaluation of the spray's therapeutic effectiveness Sinulor with Xylometazoline 0.05% nasal spray (without sea water) for influenza and other acute respiratory associated with rhinitis, 100 children aged 3 to 15 years (50 people in each group) showed that the use of the spray Sinulor promotes faster elimination of catarrhal symptoms in the nasopharynx, reducing the duration of the febrile period, thereby achieving a rapid recovery of patients. There was an increase in the activity of secretory sIgA formation and a reduction in the detection period of pathogens in the nasal passages of patients. Good tolerability of the drug and the absence of adverse events were noted.

KEY WORDS: *children, acute respiratory infections, risk factors, secretory immunity, Sinulor*

RELEVANCE OF THE PROBLEM

The nasal cavity provides an exceptional functional role that cannot be compared with anything else in terms of its significance for the vital activity of the body. Thanks to the coordinated various protective factors carried out during the passage of an air jet through the nasal cavity, the inhaled air is warmed, moistened, and cleansed of suspended particles, bacteria, and viruses that can have a harmful effect on the body [1,5].

The nasal mucosa is covered with a pseudomolayer squamous epithelium consisting of ciliated, goblet-shaped, and short and long insertion cells. The ciliated apparatus of ciliated cells provides mucociliary transport function. Goblet cells accumulate and secrete a significant amount of liquid mucoid and serous secretions that moisten the surface of the epithelium[7,9]

Nasal secretions perform the following protective functions:

- moisturizes the nasal mucosa and ensures the normal functioning of the ciliated epithelium;
- heats the inhaled air;

- transports inhaled particles deposited on the mucous coating;

- performs an anti-infective protective function, due to the presence of lysozyme, lactoferrin and anti-infective antibodies in it [2].

The transport function of cilia is adversely affected by conditions of increased dryness in industrial and residential premises, climatic factors, as well as allergens, viral and bacterial toxins.

Endonasal administration of various pharmacological agents can also synchronize or disrupt the complex mechanism of mucociliary clearance. In order to restore the function of the nasal mucosa, various inhalations, washing the nasal passages with sea water, and irrigation of the nasal cavity are often used recently [3,4].

THE PURPOSE OF THE STUDY

Evaluation of the effectiveness of the use of "Sinulor" spray in the treatment, diagnosis and complex treatment of etmoiditis in children.

**RESEARCH METHODS**

A nasal spray was used "Sinulor" for washing the nasal cavity for children in a bottle of 125 ml. It was used to irrigate the nasal cavity 3 times a day. Assessment of the nasal cavity was performed by clinical examination and using a visual analog scale (VAS) with divisions from 0 (normal condition) to 10 (complete congestion); <5 was considered as normal, >5 - as nasal congestion.

Clinical examination of the nasal cavity took into account the presence of discharge in the nasal passages, edema and hyperemia of the mucous membrane of the nasal Concha and nasal cavity.

The study included 100 patients aged 3 to 15 years, who were divided into 2 groups.

Group 1 (primary) as part of therapy, I received Sinulor 0.05% nasal spray 3 times a day and antibacterial drugs inside according to the scheme daily (at least 4-6 times a day), the nasal cavity was

washed with Xylometazoline 0.05% spray for 7-10 days.

100 children were under observation, The duration of therapy and follow-up was 5-7 days (depending on the severity of the disease).

According to the indications, children received symptomatic therapy (incl. detoxification agents), antipyretics (when the body temperature rises > 38.5 °C), and expectorants, multivitamins, as well as antiviral drugs and antibiotics (if necessary).

Group 2 (comparisons) — 50 patients receiving only traditional therapy (vasoconstrictor nasal drops, antibacterial therapy).

All patients had two or more symptoms, of which nasal congestion and/or discharge from the nose or along the back of the pharynx are mandatory, and additional signs are pain or pressure in the face area in the projection of the paranasal sinuses and a decrease in the sense of smell" [10].

Table 1. Distribution of patients by age

Age	n (%)
3-6	80 (80%)
7-10	15 (15%)
11-15	5 (5%)
Total	100(100%)

Table 2. Severity of acute rhinosinusitis symptoms in children before and after treatment on a 10-point visual-analog scale

Evaluating the symptom	Day 1		Day 3-4		Day 7-10	
	Main group	comparison Group	Main group	comparison Group	Main group	comparison Group
Temperature rise	4	4	3	4	1	2
Weakness	6	6	4	5	1	2
Intoxication	5	5	4	4	1	2
Headache	5	5	2	2	0	1
Palpation soreness	4	4	0	1	0	1
Local users						
Discharge from the nose						
Slimy	6	6	3	4	0	1
Mucopurulent-гнойное	6	6	4	5	1	1
Purulent	6	6	2	3	0	1
In the middle nasal passage	5	5	3	3	0	
In the upper nasal passage	5	5	2	3	0	1
In the General nasal passage	6	6	4	6	2	3
Swelling of the	6	6	4	5	1	2



nasal mucosa						
Hyperemia of the nasal mucosa	6	6	3	5	1	3
Nasal breathing disorder	6	6	4	6	2	3
Draining of the discharge along the posterior wall of the pharynx	5	5	2	3	0	1

According to the objective examination of patients of both groups on the 5th day of the disease, no significant differences were noted (hyperemia and edema of the nasal mucosa remained, but their

intensity decreased, mucosal discharge in the nasal cavity). The dynamics was positive for all symptoms, but nasal congestion persisted in all patients.

Fig 1. Days of onset of the "nasal breathing Disorder" symptom on a 10-point scale

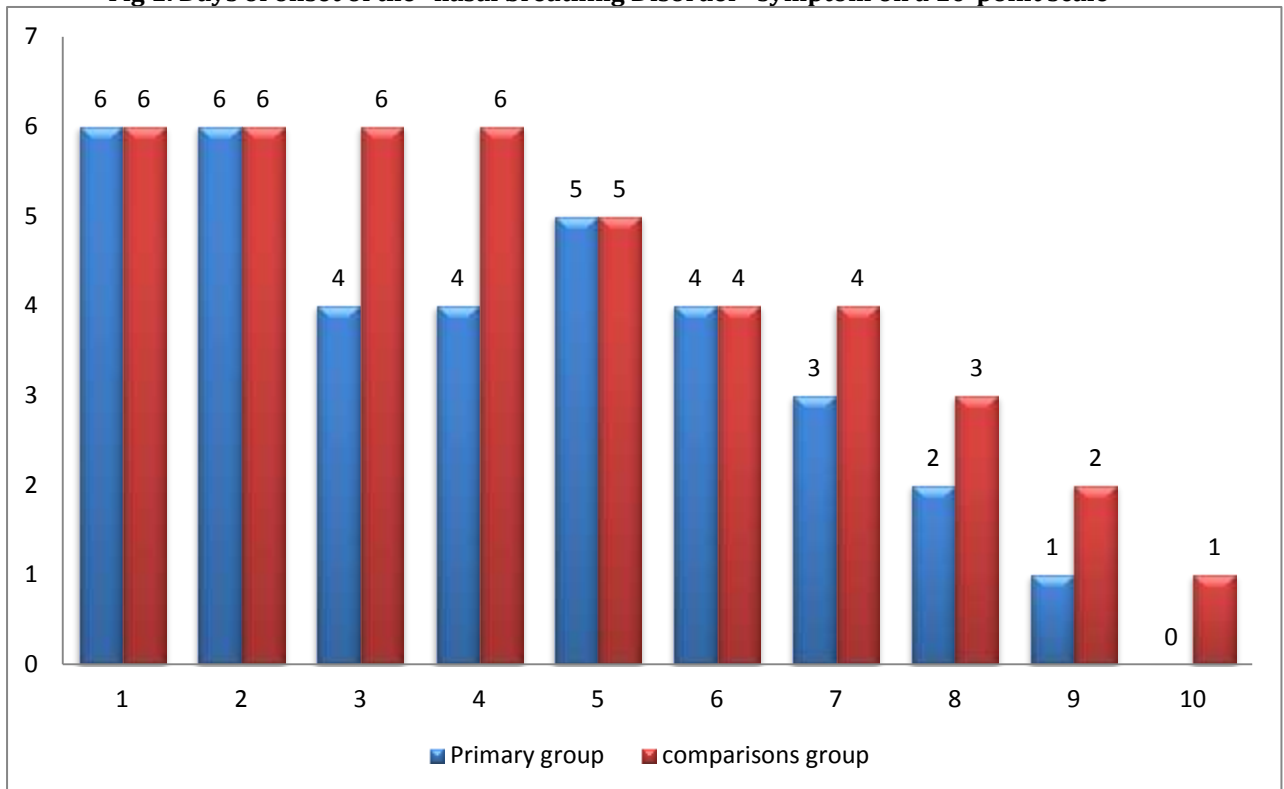




Fig 2. Dynamics of symptoms of "nasal mucosal Edema" on a 10-point scale

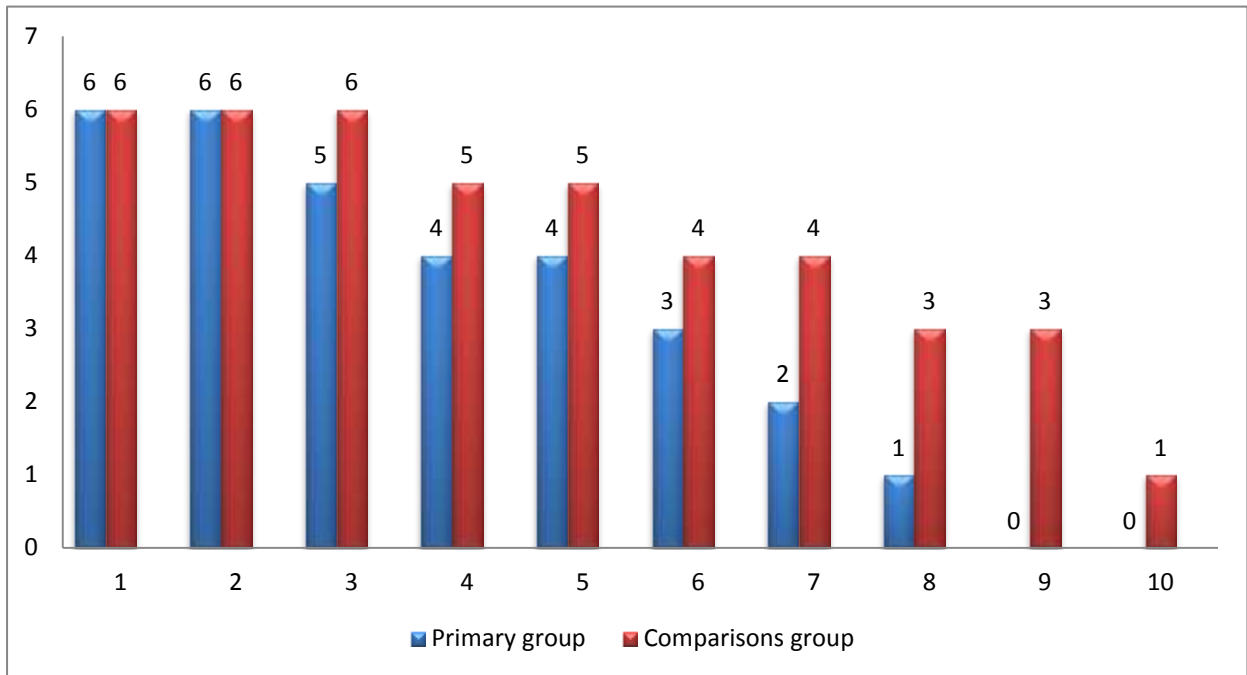


Fig 3. Dynamics of symptoms of "Hyperemia of the nasal mucosa" on a 10-point scale

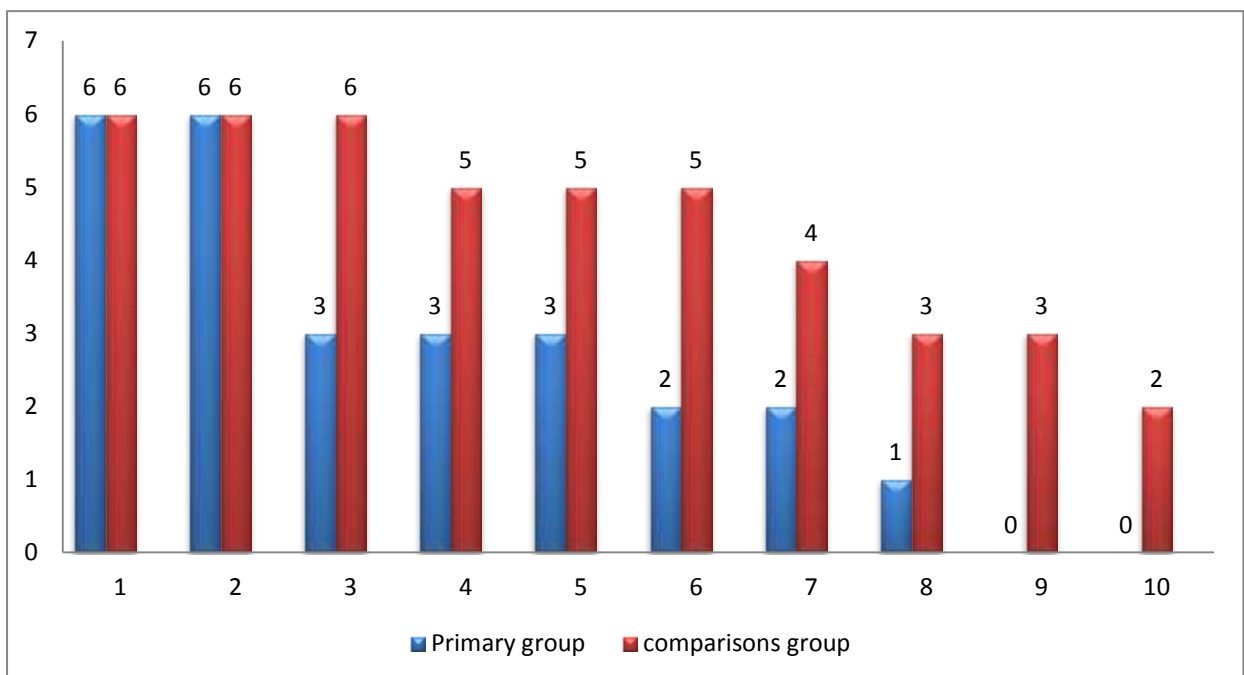
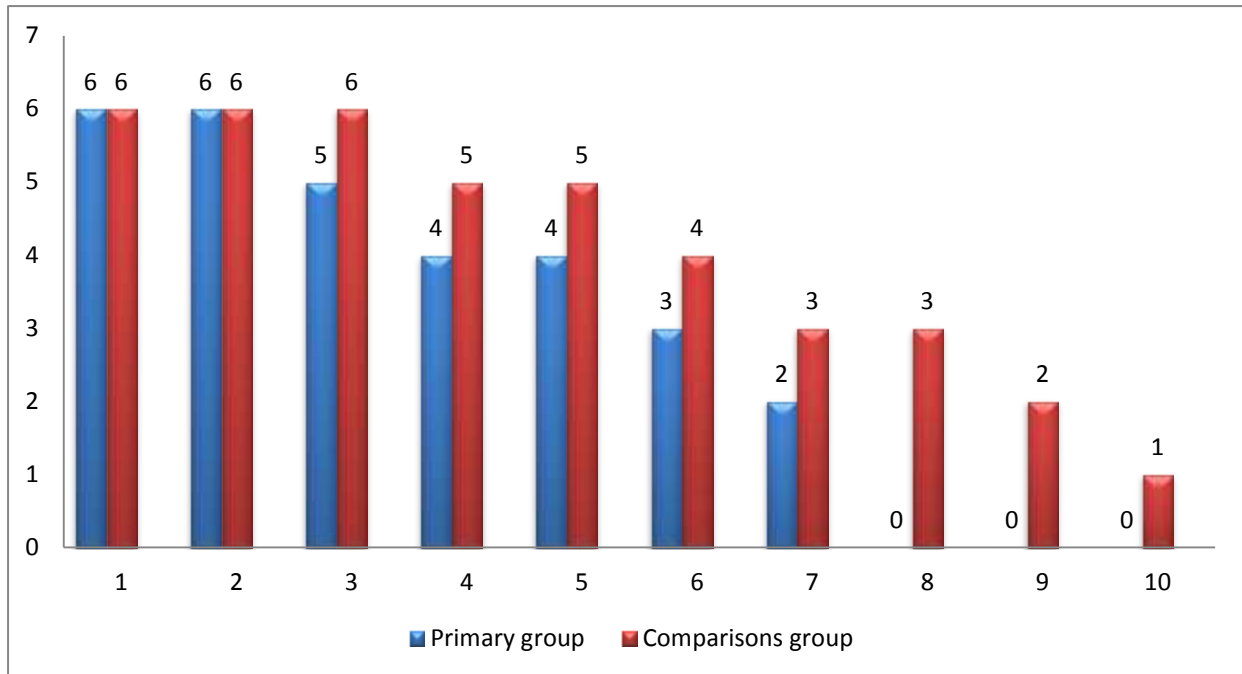




Fig 4. Dynamics of symptoms "Discharge from the nasal cavity " on a 10-point scale



In the comparison group, there was also a positive trend in the functional parameters of nasal respiration, but the subjective recovery of patients lagged behind that in comparison with the main

group. Patients complained of severe dryness of the nasal mucosa, severe difficulties with self-toilet of the nose, and a longer decrease in the sense of smell.

Table 2. Evaluation of the effectiveness of treatment in the observed children according to doctors' opinion

Clinical efficacy	Main group %	Comparison Group %
Cure	98	96
Improvement	2	4
No effect	0	0

Therapeutic effectiveness of the drug Sinulora with xemetazoline was evaluated after the end of therapy by both the doctor and the patient according to the 4-point system: unsatisfactory, satisfactory, good and excellent (table 12). As a result, 54 (90.0%) patients

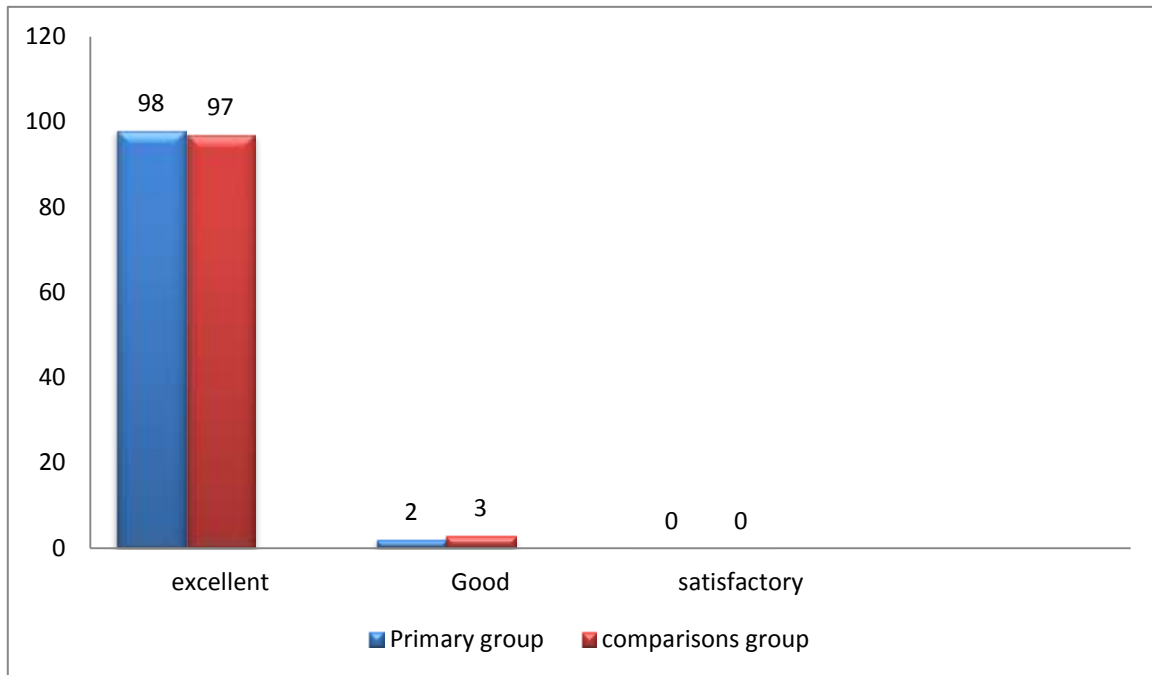
and 46 (76.7%) doctors gave a good and excellent assessment, which indicates a decrease in symptoms, including nasal congestion, while maintaining this improvement for a month (40th day from the start of treatment).

Table 3. Evaluation of the effectiveness of treatment in the observed children according to patients' opinion

Clinical efficacy ть	Main group %	comparison Group %
Excellent	67	56
Good	30	35
Satisfactory	3	9
No effect	0	0



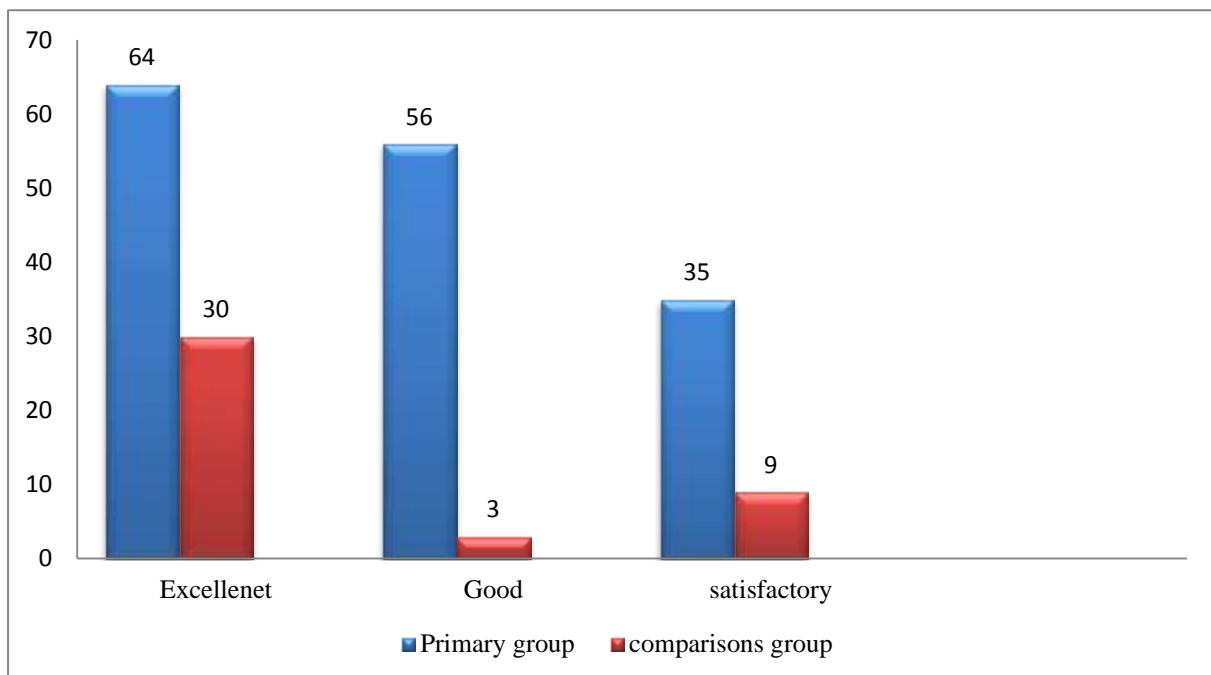
Fig 5. Rating Evaluation of the effectiveness of treatment in the observed children according to doctors ' opinion



As can be seen from the diagram (Fig. 2), we observed a pronounced positive dynamics in the

clinical manifestations, which indicates the high effectiveness of the chosen therapy method.

Fig 6. Rating Evaluation of the effectiveness of treatment in the observed children according to patients ' opinion



During the study, it was found that the drug spraySinulor penetrates all parts of the nasal cavity and nasopharynx, actively cleanses and moisturizes them, reduces the viscosity of secretions, promotes

easier independent and active removal of discharge, as well as reducing the frequency and duration of the toilet of the nasal cavity.



CONCLUSION

1. The results of the performed study indicate the expediency of using a combined drug Sinulora with xelometazoline in the treatment of patients with inflammatory diseases of the nose and paranasal sinuses, as well as for the prevention and treatment of postoperative complications in patients who have undergone surgery in the nasal cavity. The drug is well tolerated by patients when applied topically, does not give systemic effects and can be recommended for wide use in outpatient and clinical practice of an otorhinolaryngologist.

2. Antibacterial drug Singular of 0.05% in the form of a spray microdiffusion spraying of the product ensures a deep and mellow irrigation of the mucosa, which contributes to effective impact of trace elements, which removes excess fluid from the cells lining thus, already at this level of treatment partially removes edema and thereby frees the patency of the anastomoses natural, facilitates tissue penetration of antibacterial components and has a strong anti-inflammatory, decongestant, allergen action

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