

THE EFFECTIVENESS OF USING SILVER PLUS IN THE COMPLEX TREATMENT OF PATIENTS WITH CHRONIC PURULENT RHINOSINUSITIS

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Annotation: Rhinosinusitis is an infectious inflammatory process of bacterial or viral etiology of the nasal mucosa and paranasal sinuses. Sinusitis is one of the most common diseases, which is recognized in almost all scientific papers of the last decade (1, 8). Rhinosinusitis is one of the most common diseases, which is recognized in almost all scientific works of the last decade: in Uzbekistan, acute and chronic rhinosinusitis is diagnosed in 3 million people annually (3).

Currently, when the main mechanisms of the immune response have been studied and treatment and prevention schemes for inflammatory diseases of the paranasal sinuses have been developed, the incidence of sinusitis continues to increase, moreover, there is a clear trend towards an increase in the incidence of recurrent and chronic forms of sinusitis (2). Sinusitis significantly worsens the "quality of life" of patients, it was found that people suffering from rhinosinusitis have significantly worse indicators of pain sensitivity and social activity than patients with coronary insufficiency and chronic obstructive pulmonary diseases (5).

In the literature of recent years, the immunopathogenesis of purulent sinusitis and, in particular, the role of pro-inflammatory cytokines and local defense factors in the focus of inflammation has been actively discussed (4). It has been established that in chronic purulent rhinosipusitis, an imbalance in the production of proteins of the IL-1 family occurs and a violation of the ratio of IL-1beta and IL-1RA production in the direction of an increase in the proportion of the latter, as a result, there is no complete elimination of the pathogen. Much attention in the pathogenesis of rhinosinusitis is paid to the assessment of phagocytic activity of peytophils. According to most domestic studies (7,9), the functional activity of phagocytes is higher, at the same time, it is not possible to draw an unambiguous conclusion about the activity of peripheral blood phagocytes in local inflammation, because the published data are very contradictory. Diagnosis of chronic rhinosinusitis is not difficult. Anamnesis, rhinoscopy, radiography of the sinuses in direct projection, ultrasound examination (ultrasound), if necessary, computed tomography (CT) almost always allow you to correctly diagnose. The "gold standard" in the diagnosis of sinusitis is a puncture of the sinuses, obtaining the contents followed by bacterioscopic examination of it. At the present stage of treatment with chronic purulent sinusitis, it is more appropriate to use non-invasive methods. For this purpose, broad-spectrum antibiotics, antihistamines, mucolytics, decongestants are prescribed locally and parenterally. It has been proven that the local use of anti-bacterial drugs has a significant advantage over the systemic one (6.10).

The effectiveness of local treatment for purulent-inflammatory processes can be significantly increased by using scientifically based multicomponent formulations, taking into account the etiology, pathogenesis, and difference in the course of the process, where each of the components directionally affects one or another

inflammatory factor. Such a drug is Silver plus. A group of authors of Uzbekistan has developed and patented a technology for obtaining a new drug that has no analogues in the world. Clinical trials of the drug were conducted, and it was registered under the name "Silver Plus". The technology has been declared an international priority in 110 countries in the European Patent Office. According to pharmaceutical properties, the drug is classified as antiseptic and wound healing agents. Silver Plus has a wide spectrum of antimicrobial action: it is active against gram-positive and gram-negative, aerobic and anaerobic, non-spore-forming and spore-forming bacteria (*Escherichiacoli*, *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Bacillus subtilis*, *Clostridium perfringens*, *Citrobacter freundii*, *Enterobacter agglomerans*, *Serratiam arcescens*, *Morganella morgani*, *Acinetobacter calcoaceticus*, *Bacteroides fragilis*, *Salmonella typhimurium*, *Salmonella typhi*, *Shigella sonnei*, *Proteus mirabilis* and etc., fungi of the genus *Candida*, as well as *Helicobacter pylori*), helps to improve the vascularization of ischemic areas. It has a wound-healing and anti-inflammatory effect. In addition, the laboratory of the National Collection of Bacteria and Pathogens of groups I-II of infections studied the effect of the drug Silver plus on representatives of cultures: *Vibrio cholerae*, *Iersiniapestis*, *Brucella abortusbovis*, *Bacillus anthracis* and revealed a pathogenic effect on these cultures. Clinical trials of the drug Silver plus were conducted at the Medical Academy of the Republic of Uzbekistan (Department of General Surgery, Department of Obstetrics and Gynecology No. 2), the Center for Purulent Surgery.

The aim of the study was to study the clinical efficacy of the antiseptic drug Silver plus in complex therapy with chronic purulent rhinosinusitis by local use of Materials and methods.

We observed 72 patients aged 18 to 35 years who were treated in an ENT clinic for chronic purulent rhinosinusitis.

Approximately equal numbers of men and women (31 and 41) were included in the study. The diagnosis of the disease in all cases was confirmed by X-ray examinations and diagnostic sinus punctures. When determining the species composition of the sinus microflora, it was noted that *Streptococcus pneumonia* was most often sown - 32%; *Haemophilus influenzae* - 20%; *Moraxella catarrhalis* - 21%; other microflora (including *Staphylococcus aureus*, epidermal *staphylococcus*) - 27%.

Anamnesis, rhinoscopy, rhinopneumometry data were studied in all applicants, and standard clinical examinations were also performed.

Research results and their discussion

We divided the patients into two groups - the main group and the control group. In patients of the main group (n=32), after application anesthesia of the nasal mucosa with a 10% lidocaine solution, a puncture of the maxillary sinuses was performed through the lower nasal passage with a Kulikovskiy needle. The sinuses were washed to "clean waters" with 0.9% sodium chloride solution. After removal of the fluid, 10 ml of Silver Plus was injected into the sinus in a dilution of 1:50 with an isotonic sodium chloride solution. After that, the patient was put to bed for 30 minutes on the side of the affected sinus. Parenterally, patients were prescribed 1,0x2 times a day intramuscularly ceftriaxone, hyposensitizing therapy, vasoconstrictive nasal drops were performed.

In the control group of patients (n=30), they were treated in the same way, only after washing the sinuses, Silver plus was not injected into their cavity.

In the course of observation, it was noted that in the main group of 32 (84.4%) individuals, on the 3rd day from the start of treatment, body temperature normalized, aching pains in the cheek on the side of the inflamed sinus disappeared, nasal breathing was restored, headache disappeared. In the control group, this happened on the 4th-5th day.

Silver Plus solution had a particularly pronounced effect on mucociliary clearance of the mucous

membrane of the nasal cavity and sinuses, which led to a faster physiological cleansing of the sinuses from pus. It had a pronounced secretolytic effect, as a result of which the patency of the natural sinuses was restored 3 days earlier than in the control group.

In the main group of patients with chronic purulent sinusitis, after 2 punctures and the introduction of Silver Plus solution, the general condition improved, in the control group - after 3-4 punctures.

Clinical recovery of patients in the main group occurred 2-3 days earlier than in the control group.

Thus, the use of Silver Plus solution in the complex treatment and rehabilitation of ENT organs significantly and in a shorter time, reduces the clinical symptoms of inflammatory processes in bacterial, fungal infection, improves the hygienic index by 43%, reduces inflammatory phenomena up to complete reduction, enhances the nonspecific protective functions of the nasal and paranasal mucous membranes sinuses have a pronounced positive effect on mucociliary transport of the mucous membrane of the nasal cavity and sinuses..

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