

# EXPERIENCE IN THE USE OF PHYTOTHERAPY IN THE EARLY POSTOPERATIVE PERIOD AFTER SURGICAL INTERVENTIONS ON THE NOSE AND PARANASAL SINUSES

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## Abstract

An analysis was conducted of the effectiveness of the phytotherapeutic drug Sinupret in 55 patients who underwent surgical interventions on the nasal cavity and paranasal sinuses. Based on clinical observations and objective research methods, it was found that the inclusion of Sinupret in the comprehensive therapy of the early postoperative period promotes faster resolution of reactive changes in the nasal mucosa and reduces the severity of pain syndrome compared with conventional therapy.

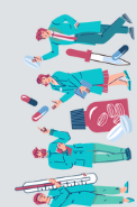
**Keywords:** Reactive changes, phytotherapy, Sinupret, rhinosurgery, postoperative period, paranasal sinuses.

## Introduction

In modern rhinosurgery, submucosal resection of the nasal septum is one of the most common elective surgical procedures [5]. The need for surgical correction of a deviated nasal septum is primarily обусловлено by impaired aerodynamics of the nasal cavity and paranasal sinuses, dysfunction of the mucous membrane, remodeling of the glandular apparatus and vascular structures, hypertrophy of the nasal turbinates, vasomotor changes, and a decrease in local immune mechanisms [2]. According to the literature, nasal septal deviation is diagnosed in 68% of the adult population during preventive examinations [3], with a higher prevalence in men—71.6% of cases [4].

Despite advances in surgical techniques, intraoperative trauma to the mucous membrane of the nasal cavity and paranasal sinuses activates inflammatory mediators [1,6]. As a result, mucosal edema, microcirculatory disorders, bleeding, formation of viscous secretions, and crusting increase, which impairs sinus drainage function and contributes to the activation of microflora and delayed regenerative processes [7–10]. According to various reports, early postoperative complications after submucosal resection of the nasal septum occur in 10–27% of cases [11].

In the early postoperative period, patients often experience pain syndrome associated with surgical trauma and nasal cavity tamponade. After removal of the tampons, nasal breathing difficulties





persist. In this regard, the following objectives are of particular importance:

- creating conditions for the development of reparative and adaptive responses and accelerating wound healing;
- prevention of possible complications;
- reduction of hospital stay and recurrence rates;
- improvement of patients' quality of life;
- improvement of Eustachian tube function.

Therefore, there is a need to search for new comprehensive approaches to the management of patients after surgical correction of the nasal septum aimed at eliminating reactive mucosal changes, accelerating the restoration of nasal breathing, and preventing purulent complications.

Among drugs with high safety and pronounced anti-inflammatory and mucolytic effects, the herbal preparation **Sinupret** occupies a leading position. Due to the inhibitory effect of bioflavonoids, it is capable of blocking the inflammatory cascade and the synthesis of key inflammatory mediators; stimulation of secretory cells by saponins reduces the viscosity of secretions [7,12]. The components of the drug reduce exudation, decrease vascular wall permeability and sensitivity, enhance ciliary epithelium activity, reduce mucosal edema, exert antispasmodic effects, and contribute to the restoration of sinus drainage and ventilation function [12].

#### **Aim of the study.**

To evaluate the clinical effectiveness of Sinupret as part of complex therapy in the early postoperative period in patients who underwent submucosal resection of the nasal septum, submucosal vasotomy of the inferior nasal turbinates, and micro-maxillotomy.

#### **Materials and methods.**

The study was conducted in the otorhinolaryngology department of a multidisciplinary clinic of Samarkand State Medical University. The study included 55 patients aged 18–55 years (39 men and 16 women) hospitalized for surgical treatment of nasal septal deviation, vasomotor or hypertrophic rhinitis, and cystic lesions of the maxillary sinuses.

#### **Exclusion criteria:**

- allergy to Sinupret components;
- organic liver diseases;
- epilepsy;
- diseases or injuries of the brain;
- pregnancy and lactation;
- patients undergoing treatment for alcohol dependence (for the alcohol-based form of the drug);
- exacerbation of tonsillitis, pharyngitis, otitis, or rhinosinusitis;
- complications requiring repeated intervention in the early postoperative period.

All patients were divided into two equal groups: the main group (28 patients) and the control group (27 patients). A significant predominance of male patients was observed—71% (Figure 1).



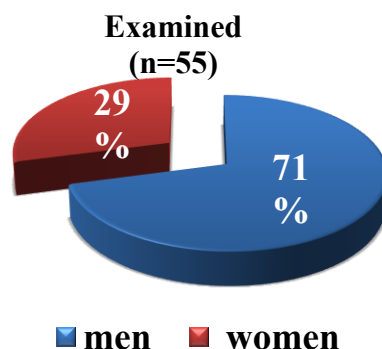


Figure 1. Distribution of patients by sex

The control group received standard therapy: ceftriaxone plus etamsylate for 2 days, followed by daily nasal irrigation and the use of almond oil. Patients in the main group additionally received Sinupret starting 2 days before surgery and for 14 days postoperatively: 2 tablets or 50 drops three times daily.

### Results

Pain was the most common subjective symptom. Pain assessment was performed using the Visual Analog Scale (VAS). The results are presented in Table 1.

Table 1. Dynamics of pain syndrome assessment

Severity of the syndrome	Postoperative days	Conventional therapy (n=27)		Combination therapy (n=28)		Chi-square / Fisher's test p-value
		Absolute number	%	Absolute number	%	
Severe pain syndrome	Day 1	13	48,1	12	42,9	>0,05
	Day 5	2	7,4	0	0	NA
	Day 10	0	0	0	0	NA
Moderate pain syndrome	Day 1	11	40,7	12	42,9	>0,05
	Day 5	9	33,3	3	10,7	<0,05
	Day 10	2	7,4	0	0	NA
Mild pain syndrome	Day 1	3	11,1	4	14,3	>0,05
	Day 5	13	48,1	11	39,3	>0,05
	Day 10	11	40,7	4	14,3	<0,01
No pain	Day 1	0	0	0	0	NA
	Day 5	3	11,1	14	50	<0,01
	Day 10	14	51,9	24	85,7	<0,01



On day 5 of treatment, as shown in the table, pain syndrome in the majority of patients receiving complex therapy was either absent (50%) or mild (39.3%). On postoperative day 10, moderate pain was noted in 40.7% of patients in the traditional therapy group, whereas absence of pain was recorded in 85.7% of patients in the complex therapy group.

In the dynamics of objective clinical signs, such as postoperative edema, hyperemia, and wound healing, statistically significant differences in favor of complex therapy were also observed (Figure 2).

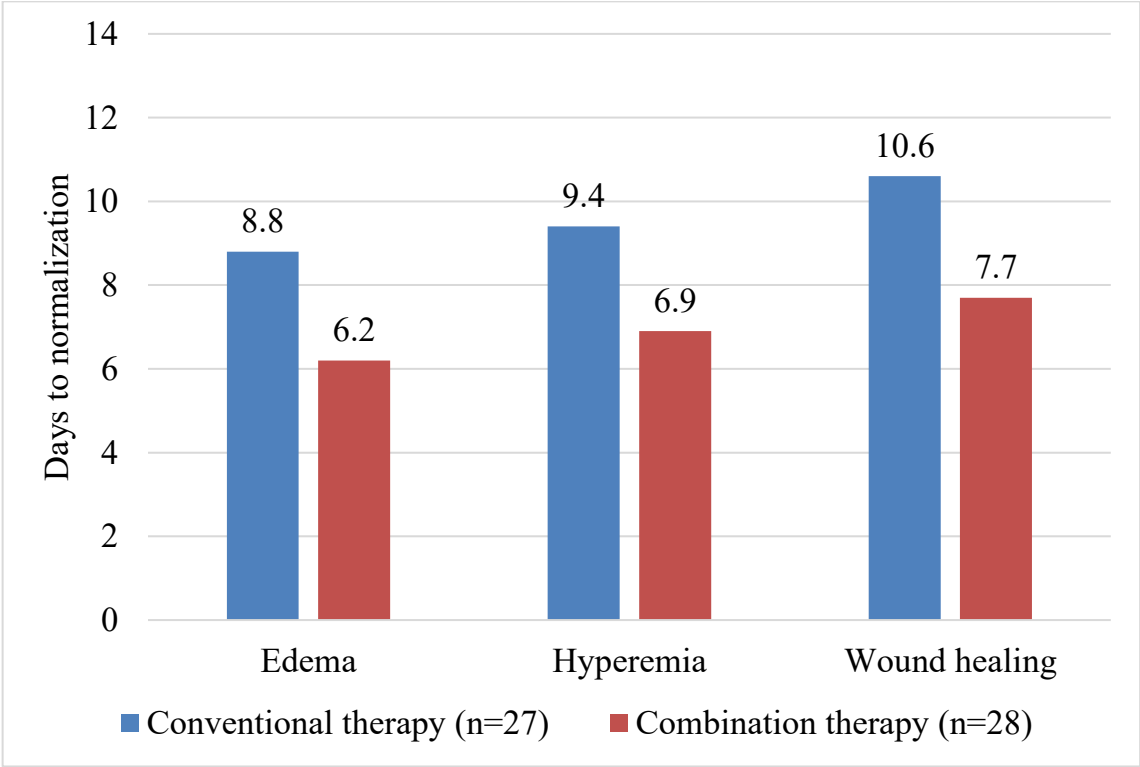


Figure 2. Objective clinical indicators

In particular, reduction of edema and hyperemia in patients receiving complex therapy required on average 2.6 days less than in those receiving traditional therapy. Postoperative wound healing also occurred on average 2.9 days earlier in patients undergoing complex treatment.

The drug demonstrated a positive effect on the restoration of mucosal function and improvement of nasal breathing.

Discussion

The obtained data confirm that inclusion of Sinupret in complex therapy of the early postoperative period contributes to a reduction in the severity of reactive inflammatory processes, improves the functional state of the mucous membrane, and accelerates reparative processes. The pharmacological activity of the drug is due to a combination of anti-inflammatory, mucolytic, and immunomodulatory effects.



### Conclusion

The use of Sinupret as part of complex therapy in patients who underwent submucosal resection of the nasal septum, vasotomy of the inferior nasal turbinates, and micro-maxillotomy improves the course of the early postoperative period, accelerates restoration of nasal breathing, and enhances patients' quality of life.

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