



## MORPHOLOGICAL CHARACTERISTICS OF THE MUCOSA OF CAVITY OF THE NOSE AFTER VARIOUS SURGICAL PROCEDURES

Journal Website:  
<https://theusajournals.com/index.php/ijmscr>

Copyright: Original content from this work may be used under the terms of the creative commons attributes 4.0 licence.

Submission Date: September 10, 2022, Accepted Date: September 20, 2022,

Published Date: September 30, 2022

Crossref doi: <https://doi.org/10.37547/ijmscr/Volume02Issue09-07>

**U.S.Khasanov,**  
Researcher, Tashkent Medical Academy, Uzbekistan

**A.A. Rakhimov,**  
Researcher, Tashkent Medical Academy, Uzbekistan

### ABSTRACT

The characteristics of the methods of checking the condition of the mucosa of the cavity of nose after the combined surgical procedure performed in the nasal cavity are presented. Modern advances in medicine in the last decade allow expanding the scope of simultaneous operative procedures. Simultaneous (joint, at the same time) operations allow to eliminate several pathological conditions in the nose and paranasal sinuses at the same time. A strong curvature of the nasal septum is one of the most common local factors associated with the pathology of cavity around the nose. Disruption of nasal breathing leads to changes in mucociliary clearance and creates conditions for inflammation in the cavity around of nose.

### KEYWORDS

Nasal cavity, FESS, nasal sinuses.

### INTRODUCTION

In modern medicine, diseases of the nose and paranasal sinuses occupy the main place among the

diseases of the ENT organs. With the implementation of FESS surgical procedures, the number of operative

procedures performed in the nasal cavity has increased significantly. Currently, elimination of the pathological process based on the analysis of the data of endoscopic examination of the nasal cavity, CT of the nose and adjacent nasal cavities, performed functional examinations, maximum preservation of the mucous membrane of the nose and cavities, anatomical bone structures, correcting their configuration, a treatment plan aimed at restoring the lost functions is being determined. In recent years, a lot of data on functional endonasal preventive operations have been collected.

Strong curvature of the nasal septum is one of the most common local factors associated with the lateral pathology of the nasal cavity. Disruption of nasal breathing leads to changes in mucociliary clearance and creates conditions for inflammation in PNS. In this regard, there is a need to sanitize the center of chronic infection and anatomical correction of nasal structures. Modern medical achievements allow to expand the scope of joint surgical practices. In the literature, there are pathological processes in the area of the nasal septum, deformations of the structures of the lateral wall of the nasal cavity, and the natural opening of the nasal cavities; perforative odontogenic maxillary sinusitis; issues related to the implementation of typical variants of joint operations in the finger-like protrusions of the paranasal sinuses combined with the damage of the orbit have not yet been clarified [5-8]. Although in joint operative practices, to one degree or another, injuries of the mucous membrane occur in different areas of the nasal cavity, the problem of prevention and treatment of post-operative traumatic bleeding becomes extremely important [4-12]. The hemostatic effect of tamponade is, on the one hand, a strong mechanical pressure on the bleeding vessel, and on the other hand, keeping the blood in the nasal cavity, which ensures faster blood clotting and faster thrombus formation in the

vessel. However, this method of stopping bleeding from the nose is quite traumatic for the mucous membrane of the nasal cavity, causing its dysfunction and causing significant pain in patients. Tampon removal is also a painful process. In addition, the presence of a gauze tampon in the nasal cavity is accompanied by strong inflammatory changes of the mucous membrane, accompanied by the appearance of signs of intoxication. The purpose of the study is to conduct a morphological study of the mucous membrane of the nasal cavity in joint surgical procedures. passes with the appearance of signs of intoxication. The purpose of the study is to conduct a morphological study of the mucous membrane of the nasal cavity in joint surgical operations. passes with the appearance of signs of intoxication. The purpose of the study is to conduct a morphological study of the mucous membrane of the nasal cavity in joint surgical procedures.

**Purpose of the research work:** Assessment of the state of the nasal mucosa in the rhinocytogramm after various surgical procedures.

## THE RESULTS AND DISCUSSION

Research materials and methods in 2021-2022, 60 patients with diseases of the nose and paranasal cavities were comprehensively examined and treated at the otorhinolaryngology department of the multidisciplinary clinic of the Tashkent Medical Academy. Combined surgical procedures were performed in these patients, and clinical and morphological studies were conducted on the effectiveness of hemostatic agents. In order to determine the degree of influence of the tools used in the nasal cavity on the nasal mucosa after nasal cavity surgical procedures, a cytological study was conducted in patients (table 1).

Table 1

In rhinopathologies, the state of the mucous membrane of the nasal cavity is on a rhinocytogramm

Signs	1 group (n=)			2 groups (n=)			3 groups (n=)		
	Before the operation	Day 7 after surgery	Day 14 after surgery	Before the operation	Day 7 after surgery	Day 14 after surgery	Before the operation	Day 7 after surgery	Day 14 after surgery
breath papillary cellular structures derived from the epithelium of the airways									
Basal cells	+	+	+	+	+	+	+	+	+
Scattered cells of the respiratory epithelium	-	-	-	-	-	+	+	+	+
Signs of hypersecretion in respiratory epithelial cells	-	-	+	-	+	+	+	+	+
Degenerative-destructive signs in respiratory epithelial cells	-	+	+	-	-	+	-	-	-
Metaplasia of squamous cell elements	-	-	+	-	-	+	-	-	+
Treatment pathomorphosis	-	-	-	-	-	+	+	+	+
Cornification	-	-	+	-	+	+	-	+	+
Fibroblasts	-	+	+	-	+	+	+	+	+
segmented neutrophils	-	-	+	-	-	+	-	+	+



Eosinophils	+	-	+	+	-	+	+	-	+
Lymphocytes	+	+	+	+	+	+	+	+	+
Histiocytes	-	-	+	-	+	+	+	+	+
Phagocytosis	-	-	+	-	-	+	+	+	+
Bacterial flora	+	+	+	+	+	+	+	-	-

As can be seen from the table data, the state of the nasal mucosa was recorded in patients of each group in the cytological material obtained from the mucous membrane of the nasal cavity after the operation. Thus, in patients who used gauze tamponade of the nasal cavity (the first group), clear signs of inflammatory infiltration and dystrophic changes were detected. In the second group of patients, a hemostatic sponge was used after surgery, and in this group, in addition to the symptoms in the above group, therapeutic pathomorphism was determined. Patients in the third group (only the splint was used) were distinguished by the reduction of inflammatory signs and the presence of regenerative process signs, as can be seen from the rhinocytogram of the mucous

membrane. Thus, the cytological examination of smears taken from the mucous membrane of the nasal cavity taken from patients with various rhinopathologies in the postoperative period showed that nitric oxide leads to the disruption of intercellular connections in the structure of polypous tissue and splint after surgery in group 3 patients with the help of it led to the strengthening of the regenerative processes of the mucous membrane of the nasal cavity. The results of cytological studies have once again confirmed the effectiveness of using the splint in the practice of otorhinolaryngologists

Table 2

Description of the changes in the condition of the nasal mucosa 7 days after joint surgical procedures in the nasal cavity in the studied groups of patients

Studied indicators (mean values)		1 groups (p=50) Gauze	2 groups (p=50) "Hemo"	3 groups (p=50) "Splint"
Mucous membrane tumor	Strongly	15	2	2
	Not available	0	11	10
	Average	5	2	5
	Strongly	14	1	4



Fibrinous vision	Not available	1	15	13
	Average	7	3	3
Trophic changes	Strongly	3	0	1
	Not available	1	13	10
	Average	4	2	2
Saccharin test indicators (standard 6-8 min.)		29.4±3.1 min.	8.6±0.9 min.	11.8±0.7 min.

## CONCLUSION

Changes in the surrounding anatomical structures of the nasal septum specific to the type of curvature of the nasal septum develop, changes in the functional state of the nasal cavity with 3-4 and mixed types of the nasal septum. mucociliary transport in joint pathological conditions of tissues - 29.1 min, Ph-7.36, absorption activity - 78.2, secretion activity - 49.3 mgr, rhinomanometry - UHO - 295, UQ - 0.61 indicators were determined. Therefore, it is advisable to correct the nasal septum and anatomical structures located close to it in patients; 3. Experimental studies have shown that collagen "Splint" does not have damaging and local effects in the early stages. The effect of the surrounding tissue on the sponge is insignificant and non-inflammatory. Adhesion of collagen fibrils of the sponge to the layers of mucous membrane structures in the periphery of the study is observed in the late periods of the study; Use of collagen "Splint" as an alternative to gauze tamponade of the nasal cavity in joint surgical procedures in the nasal cavity, volume of complications during and after surgery in patients, made it possible to improve the results of treatment due to strong trophic changes of the mucous membrane and reduction of pain.

## REFERENCES

1. Arabyan, Jirayr Migranovich. Objektivnaya otsenka i obsnovanie hirurgicheskogo meshetelstva pri sochetannoy adenotonzillarnoy i rhinogennoy respiratory chronic. Obstruktsii u detey. Diss. Yerevan State Medical University named after M. Geratsy, 2017.
2. Kochergin, G. A., V. V. Dvoryanchikov, and F. A. Syroezhkin. "Rehabilitation of patients with vestibular disturbances posle simultannyx rinootoxirurgicheskix vmeshatelstv." Russian Rhinology 23.4 (2015): 29-33.
3. Ermakova, M. V., K. O. Kurganova, and A. B. Knyazev. "Tselesoobraznost simultannyx operatsiy v rinologii." Bulletin of medical internet conference. Vol. 5. No. 5. Obshchestvo s ogranichennoy otvetstvennostyu "Nauka i innovatsii", 2015.
4. Palchun V. T., Magomedov M. M., Dibirova T. A. USTROYSTVO DLYa OStanOVKI NOSOVOGO KROVOTECHENIya. - 2011.
5. Boyko, N. V., A. S. Bachurina, and A. I. Zhdanov. "Prophylaxis of postoperatsionnykh krovotechenii pri adenotomii." Russian rhinology 23.2 (2015): 26-30.

6. Boyko, N. V., and Yu. V. Shatokin. "Pathogenesis of nosovykh krovotachenii and bolnykh s arterialnoy hypertension." *Journal of Otorhinolaryngology* 80.5 (2015): 41-45.
7. Tarkova AR, Chernyavsky AM, Morozov SV, Grigorev IA, Tkacheva NI, Rodionov VI. Hemostatic material of local activity and the basis of oxidized cellulose. *SibNauchMedy Journ.* 2015;35(2):11-15.
8. Conger, Andrew, et al. "Evolution of the graded repair of CSF leaks and skull base defects in endonasal endoscopic tumor surgery: trends in repair failure and meningitis rates in 509 patients." *Journal of neurosurgery* 130.3 (2018): 861-875.
9. Kaur, J., et al. "A comparative study of gloved versus ungloved merocel® as nasal pack after septoplasty." *Nigerian Journal of Clinical Practice* 21.11 (2018): 1391-1395.
10. Li, Tiancheng, et al. "A comparative study on the effects of vacuum nasal drainage and nasal packing after septoplasty." *Int J ClinExpMed* 11.12 (2018): 13787-13791.
11. Liao, Zhenpeng, et al. "Decreased hospital charges and postoperative pain in septoplasty by application of enhanced recovery after surgery." *Therapeutics and clinical risk management ent* 14 (2018): 1871.
12. Thomas, Ike, et al. "A Novel Technique of Using Sponge as Post-Operative Nasal Packing." *Bengal Journal of Otolaryngology and HeadNeckSurgery* 26.1 (2018): 2