



RINOENDOSCOPIC EVALUATION OF CHRONIC POLYPOID RHINOSINUSITIS

¹U.N. Vokhidov, ²H. N. Nuriddinov, ³R. R. Radjabov
Bukhara State Medical Institute^{1, 2, 3}

ABSTRACT

The aim of the study was to study the role of endoscopy in the diagnosis of chronic polypoid rhinosinusitis. We examined 50 patients with chronic kidney disease who were hospitalized in the ENT department of the Bukhara multidisciplinary clinic from 2017 to 2019. All patients underwent clinical and laboratory research, including a medical history, rhinoendoscopy and computed tomography. The study showed that endoscopic examination of the nasal cavity provides great opportunities for the diagnosis and treatment of chronic kidney disease, helping to identify unrecognized and undetected foci of infection during previous operations, as well as to find out the cause of the failures of previous surgeries and correct them surgically and with the help of drug therapy.

Key words: *chronic polypoid rhinosinusitis, endoscopic examination, diagnosis, computed tomography.*

RELEVANCE

In recent decades, diseases of the nose and paranasal sinuses in terms of referral to the clinic and treatment in hospitals firmly occupy the first place in the overall structure of the incidence of ENT organs [1, 4, 7, 9, 12, 15]. One of the most complex forms of chronic rhinosinusitis, both in terms of clinical course and treatment, is chronic polypous rhinosinusitis (CHPRS).

The use of universal (independent of the nature of the disease) questionnaires (SF-36) showed that the quality of life in individuals with nasal polyposis is worse than in patients with arterial hypertension, migraine, angina, and malignant tumors of the head and neck [2, 5, 16]. The deterioration in the quality of life of patients with nasal polyposis is comparable to that of patients suffering from chronic obstructive pulmonary diseases [8, 13].

CHPRS has a fairly significant medical and social significance, which is confirmed by the prevalence of the disease, the tendency to relapse, the need to conduct medical, rehabilitation, and social activities for a significant period of patients' life [2, 10, 11, 17, 19]. In view of the above, this justifies the appearance of the term "difficult rhinosinusitis" [2, 3, 14].

The leading role in the emergence and development of the inflammatory process in the PNS belongs to the side wall of the nose, where their mouths and narrow passages between the structures that form this wall are located – the zone of the ostiomeatal complex (OMC).

The persistence of infection can be facilitated by impaired ventilation and sinus drainage due to congenital or acquired abnormalities of intra-nasal structures: deformation of the nasal septum, hypertrophy of the nasal shells, polypous degeneration of the mucous membrane [5, 6, 12, 18].

In the diagnosis of chronic rhinosinusitis anterior rhinoscopy is used, which is the main method for determining the pathology of the nasal cavity. Rhinoscopy provides better visibility only up to the middle of the nasal conchs and therefore has a limited opportunity, which makes it necessary to conduct an endoscopic examination of the nose [10, 15].

Purpose of research the role of endoscopy in the diagnosis of chronic polypous rhinosinusitis.

MATERIAL AND METHODS OF RESEARCH

We examined 50 patients with CKD who were inpatient treatment in the ENT Department of the Bukhara multidisciplinary clinic from 2017 to 2019. Patients with concomitant bronchial asthma and specific diseases (aspirin-induced asthma, Cartagener's syndrome, young's syndrome, etc.) were not included in this study. All patients underwent a clinical and laboratory study, including a history of the disease, rhinoendoscopy and computed tomography. The control group consisted of 20 healthy volunteers. Rhinoendoscopy was performed with a Karl Storz endoscope (Germany) 00, 300 and 700.

THE RESULTS OF THE STUDY AND THEIR DISCUSSION

The main complaints made by patients were difficulty in nasal breathing (92.5%), nasal discharge (78.4%), sneezing (56%), and impaired sense of smell (52.2%). Often patients reported headaches (78.4%), more in the frontal area.

Endoscopically, nasal polyps looked like smooth, shiny, grayish formations of the mucous membrane, quite mobile, not soldered to the surrounding tissues, significantly reducing the lumen of the nasal cavity, not bleeding when in contact with the probe. The results of endoscopic examination are presented in table 1.

Table 1

Data from endoscopic examination of patients with CHPRS

Pathology	Number of patients, (n=150)	
	abs.	%
Curvature of the nasal septum	75	50,0
Nasal septum spikes	31	20,7
Hypertrophy of the hook process	22	14,7
Hypertrophy of the lower nasal conch	65	43,3
Absence of the inferior turbinate	5	3,3
Absence of the middle nasal conch	5	3,3
Perforation of the nasal septum	8	5,3
The ethmoid Bulla	27	18,0
Synechia	24	16,0

Absence of the medial wall of the maxillary sinus	36	24,0
Pathological discharge in the nasal cavity	94	62,7
Hyperemia and swelling of the nasal mucosa	101	67,3

During endoscopic examination, it was possible to distinguish different forms of chronic polypous rhinosinusitis. For example, in 90 (60.0%) patients with chronic "eosinophilic" polypous rhinosinusitis (chronic recurrent polypous rhinosinusitis) during nasal endoscopy, "grayish" transparent polyps with mucous secretions in the nasal cavity are detected. These types of polyps were more often found in both sides of the nasal cavity. During nasal endoscopy in 60 (40.0%) patients with chronic "neutrophilic" polypous rhinosinusitis (chronic purulent-polypous rhinosinusitis), nasal polyps are defined as "fibrous-dense" polyps, usually unilateral. Purulent discharge with the presence of chronic purulent rhinosinusitis (62.7%) is often detected.

Polypous growths of the mucous membrane were found in all patients, and in 39 patients they completely obstructed the nasal passages, in 47 the polyps went beyond the middle nasal passage, in 41 they were in the middle nasal passage.

It was not possible to thoroughly examine the structures of the osteomeatal complex in all patients. All structures of the osteomeatal complex were visualized in 128 (85.3%) patients with CPS, but in 22 (14.7%) patients, the natural maxillary sinus was blocked by hypertrophied hook-like process, and chronic inflammation in the area of the hook-like process arose from the crest of the nasal septum.

Pathology of the middle nasal conch, including pathologically curved middle nasal conch was found in 2 patients, bullous hypertrophy of the middle nasal conch – in 4.

In two patients, a giant bulla ethmoidalis was found, which blocked the maxillary sinus, pus and polyps were found in its cavity – a chronic focus of infection that provoked a relapse after operated sinusitis. It is characteristic that in all these patients, the dominant complaint was difficulty in nasal breathing on the eponymous side.

In the nasal passages of the examined patients, pathological discharge was found: 24-mucus, 4-Muco-purulent discharge, 12-pus.

Endoscopic examination data allows not only to determine the location of the polyp, but also to visually carefully remove polypous growths.

Thus, the analysis of the obtained data allows us to conclude that endoscopic examination of the nasal cavity and paranasal sinuses provides great opportunities for the diagnosis and treatment of CHPRS, helping to identify unrecognized and unnoticed during past operations foci of infection, as well as to find out the reason for the failures of previous surgical interventions and correct them surgically and with the help of medication.

REFERENCES

1. Boeva V. I. et al. Effect of serum vitamin D3 level and lactase gene polymorphism on the development of chronic rhinosinusitis with polyps // Bulletin of Otorhinolaryngology. - 2018. - T. 83. - No. 5. - S. 49-54. (in Russ.) DOI: [10.17116/otorino20188305149](https://doi.org/10.17116/otorino20188305149)

2. Vokhidov U. N. Comparison data of retrospective and prospective groups of patients with chronic polypous rhinosinusitis // Folia otorhinolaryngologiae et pathologiae respiratoriae. - 2014. - T. 20. - No. 3. - S. 10-16. (in Russ.) http://foliaopr.spb.ru/wp-content/uploads/2016/05/Folia_contents.pdf
3. Vokhidov U. N. Indicators of the cytokines IL-2, IL-4, IL-8 in blood serum in various forms of chronic polypous rhinosinusitis // Russian otorhinolaryngology. Medical scientific and practical journal. - 2014. -- S. 30. (in Russ.) <http://www.entru.org/2014-1.html>
4. Vokhidov U. N. The role of the method of silver impregnation in the immunohistochemical study of nasal polyps // Russian Otorhinolaryngology. - 2018. - No. 1. - S. 34-37. (in Russ.) <http://www.entru.org/2018-1.html>
5. Vokhidov U. N., Khasanov U.S. Aspects of the complex treatment of chronic polypous rhinosinusitis // Russian rhinology. - 2013. - T. 21. - No. 2. - S. 63-63. (in Russ.) <https://www.elibrary.ru/item.asp?id=22996734>
6. Vokhidov U. N., Khasanov U.S. Cytokine status in chronic polypous rhinosinusitis // Russian rhinology. - 2013. - T. 21. - No. 2. - S. 69-69. (in Russ.) <https://www.elibrary.ru/item.asp?id=22996744>
7. Levchenko A. S. et al. Genetic aspects of chronic rhinosinusitis // Genetics. - 2018. - T. 54. - No. 8. - S. 904-914. (in Russ.) DOI: 10.1134/S0016675818080088
8. Pavlush D. G., Matveeva N. Yu., Duyzen I. V. Morphological features of chronic polypous rhinosinusitis // Journal "Medicine" No. - 2019. - T. 1. - S. 70. (in Russ.) <https://docplayer.ru/154083320-Morfologicheskie-osobennosti-hronicheskogo-polipoznogo-rinosinusita.html>
9. Savlevich E. L. et al. The treatment and diagnostic algorithm for different phenotypes of polypous rhinosinusitis // Russian Allergological Journal. - 2019. - T. 16. - No. 2. - S. 50-60. (in Russ.) DOI: [10.36691/RAJ.2019.2.42288](https://doi.org/10.36691/RAJ.2019.2.42288)
10. Khasanov U.S., Vokhidov U. N. Optimization of the complex treatment of patients with chronic polypous rhinosinusitis // Doctoral student. - 2011. - T. 45. - No. 2.3. - S. 501-505. (in Russ.) <https://www.elibrary.ru/item.asp?id=16537120>
11. Fokkens W.J., Lund V.J., Mullol J. et al. EPOS 2012: European position paper on rhinosinusitis and nasal polyps 2012. A summary for otorhinolaryngologists // Rhinology. - 2012. - Vol. 50, No. 1. - P.1-298. DOI: 10.4193/Rhino50E2
12. Mohamad R. Chaaban, Erika M. Walsh, Bradford A. Woodworth. Epidemiology and differential diagnosis of nasal polyps. Am J Rhinol Allergy 27, 2013, P. 473-478. DOI: 10.2500/ajra.2013.27.3981
13. Nuridinovich V. U., Obidovich A. N. Features of mesenchymal formations of chronic polypoid rhinosinusitis // European science review. - 2015. - No. 11-12. <https://cyberleninka.ru/article/n/features-of-mesenchymal-formations-of-chronic-polypoid-rhinosinusitis>

14. Pezato R., Voegels RL, Pinto Bezerra TF, Perez-Novo C., Stamm A.C., Gregorio L.C. Mechanical disfunction in the mucosal oedema formation of patients with nasal polyps // Rhinology. - 2014 .-- Vol. 52, No. 2. - P. 162-166. DOI: 10.4193/Rhin13.066

15. Shin S.H., Ye M.K., Kim J.K., Cho C.H. Histological characteristics of chronic rhinosinusitis with nasal polyps: Recent 10-year experience of a single center in Daegu, Korea // Am er. J. Rhinol. Allergy. - 2014 .-- Vol. 28, No. 2. - P. 95. DOI: 10.2500/ajra.2014.28.4003

16. Tecimer S.H., Kasapoglu F., Demir U.L., Ozmen O.A., Coskun H., Basut O. Correlation between clinical findings and eosinophil / neutrophil ratio in patients with nasal polyps // Europ. Arch. Otorhinolaryngol. - 2015. - Vol. 272. - №4. - P.915-921. DOI: 10.1007/s00405-014-3174-4

17. Van Zele T., Holtappels G., Gevaert P., Bachert C. Differences in initial immunoprofiles between recurrent and nonrecurrent chronic rhinosinusitis with nasal polyps // Amer. J. Rhinol. Allergy. 2014. - Vol. 28, No. 3. - P. 192-19. DOI: 10.2500/ajra.2014.28.4033

18. Vokhidov U. N. State of reticular fibers in various forms of polypoid rhinosinusitis // European science review. - 2015. - No. 7-8. - S. 39-40. <https://cyberleninka.ru/article/n/state-of-reticular-fibers-in-various-forms-of-polypoid-rhinosinusitis>

19. Yan Y., Gordon W. M., Wang D.Y. Nasal epithelial repair and remodeling in physical injury, infection, and inflammatory diseases. Curr Opin Otolaryngol Head Neck Surg 21, 2013; P. 263-270. DOI: 10.1097/MOO.0b013e32835f80a0

