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CLINICAL AND IMMUNOLOGICAL STATUS OF CHRONIC ETHMOIDITIS AND METHODS OF THEIR ENDONASAL TREATMENT

Resume: Chronic ethmoiditis remains relevant today, among other serious diseases. With this disease, patients complain of pain in the bridge of the nose, difficulty breathing in the nose and purulent discharge from the nose. If treatment is not started in time, the disease can lead to inflammation of the retina of the eye opening and neuritis of the optic nerve. The most severe and dangerous exacerbation of this disease is phlegmon of the orbit (acute purulent inflammation of the cellular tissue of the orbit with necrosis and purulent dissolution), before which venous thrombosis is possible.

In the article, the authors used a modern approach to endonasal treatment of chronic ethmoiditis due to its clinical and immunological condition.

Keywords: chronic ethmoiditis, endonasal treatment, immunological studies, cytological studies.

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КЛИНИКО-ИММУНОЛОГИЧЕСКИЙ СТАТУС ХРОНИЧЕСКИХ ЭТМОИДИТОВ И МЕТОДЫ ИХ ЭНДОНАЗАЛЬНОГО ЛЕЧЕНИЯ

Резюме: Хронический этмоидит остается актуальным и сегодня, среди других серьезных заболеваний. При этом заболевании пациенты жалуются на боль в переносице, затрудненное дыхание в носу и гнойные выделения из носа. Если вовремя не начать лечение, заболевание может

привести к воспалению сетчатки глазного отверстия и неврриту зрительного нерва.

Наиболее тяжелым и опасным обострением этого заболевания является флегмона орбиты (острое гнойное воспаление клетчатки орбиты с некрозом и гнойным растворением), перед которым возможен венозный тромбоз.

В статье авторы использовали современный подход к эндоназальному лечению хронического этмоидита в связи с его клинико-иммунологическим состоянием.

Ключевые слова: хронический этмоидит, эндоназальная лечения, иммунологические исследования, цитологические исследования.

Introduction. Chronic ethmoiditis refers to chronic diseases of the mucous membrane of the nasal cavity and paranasal sinuses, the origin of which is not entirely clear, and treatment is ineffective due to frequent relapses of the pathological process [2,5,9]. The main symptom of ethmoiditis is the formation of multiple mucous polyps with unrestrained growth. If they are not removed, they can completely obstruct the nasal cavity, including its functions and continuing to grow towards the nasopharynx, the vestibule of the nose, pushing apart bone structures and deforming the external nose[6,10].

Endonasal treatment of nasal diseases is mainly reduced to surgical removal and restoration of nasal breathing, however, even with "large radicalism" of the operation, polyps recur again and again, nasal obstruction occurs, requiring repeated polypotomies [1,4,7]. There are people who have undergone from 10 to 30 polypotomies, and in some cases the intervals between remissions are from 3 to 5 months. Numerous conservative methods of influencing this process, in addition to operations, remain unsuccessful, and this requires further study of the etiology, pathogenesis and treatment methods [3,8,9].

The purpose of the study. Diagnosis and improvement of surgical treatment of inflammatory diseases of the paranasal sinuses of the latticed bone. To study the influence of anatomical and bacteriological factors on the development and clinical characteristics of chronic ethmoiditis.

The material and methodology of the study. Under observation were 34 patients (20 men and 14 women), aged 24 to 60 years, with polypous ethmoiditis, united by the commonality of the following features of the disease: low effectiveness of drug treatment, development of the inflammatory process in the upper respiratory tract, difficulty nasal breathing, loss of sense of smell and copious nasal discharge. Concomitant bronchial asthma was detected in 3 patients. The control group consisted of 12 practically healthy individuals.

The results of the study. According to the anamnesis of the examined, the main terms of their disease ranged from 3-6 years. The onset of the disease was associated with acute respiratory infection (17 people), hypothermia (3), the remaining 14 patients could not name the cause. In addition to complaints of difficult nasal breathing, impaired sense of smell and the presence of discharge from the nasal cavity, most patients also noted the presence of allergies to antibiotics and nonsteroidal anti-inflammatory drugs (mainly aspirin). Concomitant bronchial asthma with severe course and dependence on hormones and bronchodilators was detected in three patients.

The results of studies conducted to study cellular immunity indicators in patients with polypous ethmoiditis before and after surgical removal of nasal polyps are presented in Table 1. From the data presented, it follows that when patients are admitted to the clinic, the relative content of peripheral T-lymphocytes forming rosettes with sheep erythrocytes (E-ROCK) and B-lymphocytes, forming rosettes with sensitized mouse erythrocytes (EAC-ROC) were significantly reduced compared to similar indicators in practically healthy individuals. By this time, there was also a significant decrease in the indicators

of nonspecific resistance of the body - phagocytic activity of peripheral blood neutrophils and hemolytic activity of the compliment system.

The results of studies on cellular immunity indicators conducted by us on the 5th-6th day after surgical removal of nasal polyps did not reveal significant differences in overall immunity in all of the above parameters when compared with the initial values. This may indicate that surgical intervention and the method of intubation anesthesia used by us do not cause the development of postoperative immunodeficiency. The postoperative period in these patients proceeded mostly smoothly and without any complications. It should be noted that the early postoperative period (1-2 weeks) in patients with bronchial asthma, it also proceeded without asthmatic attacks, but after that there was an exacerbation of bronchial asthma. Immunological studies in these patients by this time revealed a decrease (compared with the initial data) in the relative number of T and B lymphocytes, neutrophil activity, RBTL intensity, as well as an increase in the content of mast cells in cultures of stimulated leukocytes. Due to multiple drug intolerance in patients with bronchial asthma, they were prescribed only ribomunil 1.2 mg 1 time per day in the first 4 days of the week with the duration of the general course of treatment up to 1 month.

The data obtained by us on the decrease in cellular indicators of general immunity in patients with polypous ethmoiditis are consistent with the results obtained by other authors when studying the indicators of humoral and cellular immunity /In individuals who make up the control group, rhinocytological studies found only single lymphocytes, neutrophils and epithelial cells.

We also conducted cytological and immunological studies of a suspension of homogenized and trypsin-treated removed polyps. Cytological studies revealed a large number of epithelial cells with destructive large nuclei and multiple cytoplasmic inclusions, as well as fibroblast-like cells. Normal and destructive neutrophils, monocytes, activated eosinophils, tissue basophils (mast cells), lymphocytes and cells (blast lymphocytes) at the stage of mitosis were

also detected. It should also be noted that mast cells were found both in cytological preparations of polyps of patients with asthma and in operated patients without concomitant bronchial asthma.

The relative decrease in the number of rosette-forming T-lymphocytes in the suspension of polyps against the background of their strongly expressed functional activity is apparently explained by the loss of surface receptors to sheep erythrocytes (CD2) due to the activation of cells in situ or due to enzymatic treatment of polyps. These data are consistent with the results of studies that have shown that mainly lymphocytes with surface markers CD3, CD4, CD8 are found in the structure of polyps.

Thus, the results of our studies indicate that, along with a decrease in the indicators of general immunity, local immune processes occurring in the epithelium of polypous tissue are characterized by an increase in the functional activity of T- and B-lymphocytes and an intensification of phagocytosis processes.

The results of a few studies on the immunological mechanisms of polypo-formation indicate that when bacteria (viruses) interact with epithelial cells of the mucous membrane of the paranasal sinuses, structural and functional changes occur, which are accompanied by an increase in the expression of histocompatibility antigens of class 2 (HLADR) and intercellular adhesion molecules on the surface of epithelial cells, as well as an increase in the synthesis of proinflammatory cytokines (tumor necrosis factor, interleukin-8, granulocyte-monocyte-colonies - stimulating factor and growth factor of endothelial and epithelial cells). As a result, the processes of migration, antigenic presentation, intercellular cooperation of immunocompetent cells are stimulated, as well as hyperactivation of neutrophils, eosinophils and degranulation of mast cells occurs by increasing local IgE production and the formation of immune complexes.

The results obtained by us and the literature data give reason to believe that, apparently, along with the known forms of general immune disorders, local immunological processes that consistently include the stages of local hyperreactive immune inflammation may also be of great importance in the pathogenesis of polyp formation.

Such an idea of the pathogenesis of polypous ethmoiditis requires the use of appropriate approaches to the treatment of patients with this disease. In the treatment of polypous ethmoiditis, in our opinion, it is necessary to combine general immunocorrective therapy with the simultaneous use of means of influencing hyperactive inflammation that has arisen in the mucous membrane of the nasal cavity, paranasal sinuses and in the underlying parts of the respiratory tract. To solve this problem, the local use of immunosuppressants, steroid and nonsteroidal anti-inflammatory drugs, desensitizing drugs, as well as ion channel blockers of lymphoid, epithelial and mast cells seems promising.

Conclusion. Local immunopathological processes play a leading role in the pathogenesis of chronic ethmoiditis, which, against the background of a general functional imbalance of the immune system, can lead to the development of hyperactive inflammation in the mucous membrane of the nasal cavity and the underlying respiratory tract.

Conducting a comprehensive study of local and general cellular indicators of immunity allows us to more accurately characterize the pathogenetic link in the immune imbalance of the body in order to select effective methods of drug preparation and endonasal treatment of patients with chronic ethmoiditis.

LIST OF LITERATURE:

1. Agafonov AA. Comparative evaluation of methods of classical and endoscopic sinusotomy: abstract of the dissertation of the Candidate of Medical Sciences /A.A. Agafonov. – M., 2006. – 23 p.

2. Dyvydov D.V. et al. Odontogenic maxillary sinusitis: features of diagnosis and treatment //Bulletin of Otorhinolaryngology. - 2014. – No. 1. – pp. 4-7.

3. Iordanishvili A.K., Nikitenko V.V., Balin D.V. Age-related features of the clinical course of odontogenic maxillary sinusitis// Dentistry. - 2013. – No. 5. – pp. 25-28.

4. Nesterova K.I. et al. Perforated odontogenic maxillary sinusitis: prerequisites for the formation and prevention with the help of reparative osteogenesis by growth factor //Russian otorhinolaryngology. – 2014. – № .6. – p. 71.

5. Agusti E.B. et al. Foreign bodies in the maxillary sinus // Acta Otorrinolaringologica (English edition). - 2009. – Vol. 60. – No. 3. – pp. 190-193.

6. Arias-Irimiya O. et al. Meta-analysis of the etiology of odontogenic maxillary sinusitis //Oral medicine, pathology of the oral cavity. – 2010. – Vol. 15. – No. 1. – p. e70-3.

7. Huang Yu.K., Chen W.H. Caldwell-Luke surgery without mandibular antrostomy: a retrospective study of 50 cases // Journal of Maxillofacial surgery. - 2012. – Vol. 70. – No. 9. – pp. 2080-2084.

8. Matsumoto Yu. and others . Association between odontogenic infections and unilateral turbidity of the sinuses //Auris Nasus Larynx. – 2015. – p. 42. - No. 4. – pp. 288-293.

9. Venetis G. et al. Endoscopic assistance in the diagnosis and treatment of odontogenic diseases of the maxillary sinuses // Maxillofacial surgery. - 2014. – Vol. 18. – No. 2. – pp. 207-212.

10. Wang K.L. et al. Odontogenic sinusitis: a series of cases studying diagnosis and treatment // International Forum of Allergology and Rhinology. – 2015.