

Features of the Course of Rhinosinusitis in Different Age Groups

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Abstract: Over the past decades, significant progress has been noted in the diagnosis and treatment of respiratory tract diseases, in particular various forms of sinusitis — a pathology that affects more than 20% of the world's population [8, 9, 15]. Achievements in the field of immunology, genetics, and the results of fundamental research have brought researchers closer to solving many problems associated with the emergence and development of pathological changes in tissues at the cellular, molecular level. The creation of new pharmacological drugs, the discovery of more advanced antibiotics has made it possible to successfully fight against various types of infectious pathogens.

Keywords: rhinosinusitis, sinusitis, pathological.

Introduction

Rhinosinusitis (RS) is a common disease in children that is sometimes overlooked. Children average 6–8 upper respiratory viral illness with 0.5–5% of these progressing to acute rhinosinusitis (ARS). An undefined number of these children will progress to have chronic rhinosinusitis (CRS) [1]. The disease has great impact on the health care system and the national economy as a whole [2].

The clinical symptoms of ARS in children include nasal stuffiness, colored nasal discharge, and cough with resultant sleep disturbance. Facial pain/headache can be present in older children. ARS is defined as symptoms lasting up to 4 weeks, subacute is when symptoms are between 4 weeks and 12 weeks, and CRS is when symptoms have been present for more than 12 weeks [3].

Rhinosinusitis is defined as a symptomatic inflammatory condition of mucosa of the nasal cavity and paranasal sinuses, the fluids within these sinuses, and/or the underlying bone [4]. The term “sinusitis” has been supplanted by “rhinosinusitis” due to evidence that the nasal mucosa is almost universally involved in the disease process [5].

The introduction of microsurgical techniques into practice, the development of minimally invasive methods of surgical intervention, determined a qualitatively new approach to the treatment of sinusitis. However, neither new molecules nor modern surgical techniques have reduced the percentage of morbidity of the population with this pathology [8]. Moreover, in recent years there has been a significant increase in sinusitis caused by atypical pathogens, saprophytic flora, in particular fungal, which in conditions of healthy microbiocenosis of the mucous membranes usually does not lead to inflammation [3-5, 11]. The problem of diagnosis, treatment and prevention of odontogenic purulent inflammatory diseases of the maxillofacial region remains the most relevant for modern dentistry and maxillofacial surgery [1].

A differentiated approach in the treatment of various forms of inflammatory diseases of the dental system and the development of methods acting on their pathogenetic links is one of the ways to solve this problem. The mechanism of development of maxillary sinusitis is determined

primarily by the nature of the etiological factor. определяется в первую очередь характером этиологического фактора. The most common causes of chronic inflammation of the maxillary sinuses are infection, allergies, local damage to the mucous membrane, as well as local anatomical causes [2]. In the pathogenesis of the development of chronic sinusitis, a significant role is played by the functional ability and size of sinus anastomoses, impaired metabolism of arachidonic acid and intolerance to nonsteroidal anti-inflammatory drugs, as well as a violation of immunological mechanisms [3].

Chronic polypous rhinosinusitis is a fairly widespread chronic inflammatory disease of the mucous membrane of the paranasal sinuses, significantly affecting the quality of life of patients. In most cases, this disease was approximately 1.5–2 times more common in men than in women aged 50-59 years, and among the subjects aged

The number of men and women aged 30-39 and 40-49 turned out to be the same [4]. Further study of the prevalence of polypous rhinosinusitis among various age groups is necessary to understand the patterns of occurrence and course of this disease.

According to G. Z. Piskunov [3], from a practical point of view, it is advisable to identify the following types of polypous rhinosinusitis.

1. Polyposis as a result of impaired aerodynamics in the nasal cavity and paranasal sinuses.
2. Polyposis as a result of chronic purulent inflammation of the mucous membrane of the nasal cavity and paranasal sinuses.
3. Polyposis as a result of a fungal lesion of the mucous membrane.
4. Polyposis as a result of impaired metabolism of arachidonic acid.
5. Polyposis in congenital syndromes – cystic fibrosis, Cartagenera syndrome

According to the morphological structure, some authors distinguish several types of polyps: edematous, fibrous, glandular with cystic changes, granulomatosis, etc. [7].

These changes can be observed both in the infectious and allergic nature of the occurrence of polyps. However, most polyps of an infectious nature are of the granulomatous or fibrous type, which is explained by a strong purulent inflammation leading to inflammatory degeneration of the mucous membrane that occurs in a chronic infectious condition. There is such a thing as allergic inflammation, which

Young scientists are histologically characterized by edematous thickening of the nasal mucosa and sinuses, indicating similar changes in anaphylactic reactions, which may be histologically opposite. According to Japanese researchers, patients with allergic rhinitis develop polyps in less than 10% of cases and a larger percentage of cases with aspirinsensitive and asthmatic component.

The data obtained indicate that when developing a comprehensive method for the treatment of rhinosinusitis, it is necessary to take into account the age of patients, the anamnestic course of the disease, correct the state of intra-nasal structures, allergic and immune rearrangements of the body to achieve a longer remission of the disease.

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