SYSTEM CHARACTERISTICS IMMUNITY IN PATIENTS WITH SIALOSIS

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ABSTRACT

The paper presents the results of an examination of patients with various forms of chronic non-tumorous diseases of the parotid salivary glands (CKN OSZh): chronic parenchymal mumps (CP), Sjogren's disease (BS), Mikulich's disease (BM). According to immunological data, c, significant changes in the immune system can be judged in patients with BS and BM. With sialoses, we found a noticeable violation in the functioning of the immune mechanisms - BS and BM.

Keywords: sialosis, mumps, salivary glands, Sjogren's disease, Mikulich's disease, cellular immunity, humoral immunity.

INTRODUCTION

The prevention and treatment of inflammatory diseases of the salivary glands (SJ) remains an urgent problem in dentistry. This is due to an increase in the number of patients, chronicity of the process and short periods of remission. The importance of the full functioning of the SG, their close relationship with the activity of various organs and systems of the body is not in doubt. The main diseases of the SJ are sialadenitis and sialosis [1, 3, 4].

Sialosis (or sialadenosis) takes the 1st place in frequency after sialadenitis and tumors, accounting for 10% of the total number of all diseases of the SG. Sialosis is a polyetiological disease. It can occur at any age, but more often develops at the age of 40-60 years in women, when a lot of “causal” underlying diseases appear in the body for sialosis. Sialosis is a pathology of SJ of dystrophic origin, due to various common pathologies: metabolic disorders, diseases of the endocrine system, digestive tract, osteochondrosis of the cervical spine, some allergic diseases, etc. [4-6].

It is known that immune processes play a significant role in CND OSJ [2].Objective: to study the parameters of the immune system in patients with chronic kidney disease, BS and BM.

MATERIAL AND METHODS

We examined 64 patients with CVI OSJ in the age group of 34 to 67 years old, of whom 47 were women, 17 men. We divided all patients into 3 groups: the first consisted of 27 patients with chronic kidney disease, the second consisted of 16 people with BS, 3rd - 21 patients with BM. In the control group there were 18 people of approximately the same age as in the groups of patients, but without pathologies from the SJ. Using monoclonal antibodies (CD cluster), the basic parameters of cellular immunity were studied. The content of immunoglobulins (Ig) in mixed saliva (sIgA and IgA) and in blood (IgA, IgG, IgM) was determined by radial immunodiffusion according to G. Mancini (1968).

RESULTS AND DISCUSSION

In patients of all three groups with chronic kidney injury, a significant decrease in T (CD3) lymphocytes was revealed in relative and absolute terms with a confidence level of $p < 0.05$ in the 1st and 3rd groups and to $p < 0.01$ in the group with BS . At the same time, a decrease in the total number of leukocytes in the 2nd group with BS to 4.2 ± 0.03 x 109 L was found at $p < 0.001$ (in the control 6.6 ± 0.5 x 109 L). In addition, in the 2nd and 3rd groups, a noticeable decrease in the relative level of T (CD4) cells with helper function with a high level of confidence ($p < 0.001$) and a decrease in the immunoregulatory index compared with the control were revealed. In contrast to these two groups with sialoses, in the 1st group of patients with CPD there were no sharp changes in the content of T(CD4) and a moderate increase in T (CD8) with suppressor function. So, for example, in the control, T (CD8) cells were at the level of 18.2 ± 1.9, and in patients with chronic kidney disease - 20.4 ± 1.5.

Despite the fact that in all groups of patients we noted a different nature of functional-quantitative shifts on the part of the T-component of immunity, in relation to B (CD20) lymphocytes in both their relative and absolute expressions, the shifts were generally of the same type with a general tendency in their continuous increase, especially in groups with BS and BM, and in the 2nd group with BS it was the highest 45.7 ± 2.6 (in the control - 19.2 ± 1.4) and was statistically confirmed ($p < 0.001$).

On the part of the humoral system of immunity in all patients with chronic obstructive heart disease, an increase in blood IgA is observed at a confidence level from $p < 0.01$ in the 3rd to $p < 0.001$ in the 2nd group, respectively. With CPI and BM, an increase in IgM level was observed ($p < 0.05$). Patients with BM revealed a moderate increase in IgG production ($p < 0.05$). And only in patients with BS there was a marked increase in IgG production of 10.3 ± 0.5 g / l (in the control of 6.8 ± 0.2).

When analyzing the level of Ig in saliva, a noticeable decrease in sIgA production was revealed in patients with CPI and BM at $p < 0.001$, while in the 2nd group (BS) a slight decrease was revealed compared with the control with a confidence level of $p > 0.05$. IgA concentration was reduced in all groups with a significance level of $p < 0.01$ - $p < 0.001$, especially in the 3rd group (BM).

Probably, an increased level of IgG class G in the 2nd and 3rd groups indicates a chronic process with these types of sialoses and leads to overproduction of antibodies to tissue antigens.

A significant increase in serum IgA in the examined was accompanied by a parallel decrease in the composition of saliva.

In our opinion, it is likely that changes in the content of IgA and a decrease in the immunoregulatory index, as well as a violation of local immunity, observed in patients with sialoses, lead to autoimmune processes. This is clearly evidenced by the data of other authors who indicate in their works an increase in the content of circulating immune complexes (CIC) in BS when their content exceeded the norm by 6 times. The authors explain this by the fact that an increase in the CEC is a serological marker for the development of systemic manifestations and immune disorders in BS and to a lesser extent this was due to damage to the

exogenous glands themselves. The development of autoimmune reactions (RTBL and RSK with a coolant antigen) was observed in patients of all groups, but they were most pronounced in patients with BS [2].

The study of changes in cellular and humoral immunity in patients of all groups was reflected in the progression of the pathological process in the OSJ [2].

Thus, a violation of the immune status was revealed in patients with chronic kidney disease. In sialoses, we found a noticeable violation in the functioning of the immune mechanisms of two groups - BS and BM. With the progression of pathology in the OSJ, significant changes are observed in the immune system of patients, which can be used as an unfavorable prognostic criterion.

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