CONDITION OF CELLULAR IMMUNITY AFTER COMPLICATIONS OF DENTAL IMPLANTATION

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Despite the fact that in recent years, dental implantation has received a high level of success, more information has appeared about the risk of developing inflammatory complications (mucositis and peri-implantitis)\textsuperscript{1,2}. One of the main components of pathological processes is the breach of the cellular link of immunity\textsuperscript{3}. The aim was to study cellular immunity in patients after dental implantation.

Materials and Methods. 41 patients were included in the study. Clinical and laboratory tests were provided. Depending on the verified complications, the patients were divided into two groups: the 1st group - 14 patients with mucositis, the 2nd group - 12 with peri-implantitis. The control group consisted of 15 patients who had no inflammatory complications. Lymphocyte subpopulations in the whole heparinized peripheral blood were determined by indirect immunofluorescent reaction with monoclonal antibodies to differential antigens of the cell surface.

Results. T-lymphocytes CD3+ level in the 1st group corresponded to the results of the control group, but in the 2nd group there was a decrease of the level by 2 times. In the 1st and 2nd group there was a significant decrease in the relative level of CD4+ lymphocytes (by 1.8 and by 2 times relative). There was indicated a difference in the content of CD8+ lymphocytes, the number of which was increased in mucositis and significantly decreased in peri-implantitis – the cytotoxic function is insufficient and can be a manifestation of the depth of the pathological process. The level
of CD23+, NK-cells is not significantly elevated. There was a significant increase in the content of CD19 + in patients with periimplantitis compared to mucositis and control group. Peri-implantitis develops against the background of suppression and dysballance of systemic immunity: reduction of CD3+, CD8+ with a simultaneous increase of the number of CD19+ lymphocytes. It is planned to develop a diagnostic method for predicting the risk of implantation.

References

Key words: indexes of cellular immunity, peri-implantitis, mucositis.

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