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Research Article

THE CORRELATION OF THE TERMS OF ORTHOPEDIC TREATMENT OF POSTOPERATIVE DEFECTS OF THE MAXILLA AND PSYCHOLOGICAL TYPES OF ATTITUDES TOWARDS ONE'S OWN ONCOLOGICAL DISEASE OF THE NASOPHARYNGEAL ZONE

¹**Guyter O.S.**, MD, PhD, associate professor of the Department of Orthopedic Dentistry and Orthodontics with a course of propaedeutics of dental diseases of Federal State Budgetary Educational Institution of Higher Education «I.P.Pavlov Ryazan State Medical University» of the Ministry of Healthcare of the Russian Federation. Telephone number: +7(910) 615-99-98, e-mail:

[gos.stam@mail.ru](mailto:gostam@mail.ru)

²**Mitin N.E.**, MD, PhD, associate professor, Head of the Department of Orthopedic Dentistry and Orthodontics with a course of propaedeutics of dental diseases of Federal State Budgetary Educational Institution of Higher Education «I.P.Pavlov Ryazan State Medical University» of the Ministry of Healthcare of the Russian Federation. E-mail: nimitin@yandex.ru

³**Medvedeva K.P.**, 5th year student of the faculty of dentistry of Federal State Budgetary Educational Institution of Higher Education «I.P.Pavlov Ryazan State Medical University» of the Ministry of Healthcare of the Russian Federation. E-mail: medvedeva.xeniya2011@yandex.ru

⁴**Oleynikov A.A.**, 5th year student of the faculty of dentistry of Federal State Budgetary Educational Institution of Higher Education «I.P.Pavlov Ryazan State Medical University» of the Ministry of Healthcare of the Russian Federation. Telephone number: +7(920) 963-34-46, e-mail:

bandera4994@gmail.com

Federal State Budgetary Educational Institution of Higher Education «I.P.Pavlov Ryazan State Medical University» of the Ministry of Healthcare of the Russian Federation.

9, Vysokovolt'naya Street, Ryazan, Russia, 390026.

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Abstract:

The quality of life of a dental patient is defined as the range between the expected result and experience, therefore the evaluation of the treatment by the patient is increasingly recognized as an important alternative result criterion. Modern scales for assessing the psychosomatic state of patients allow for a deep, multifaceted analysis of physiological, psychological, emotional, and social disorders in various diseases.

For the first time at the stage of stomatological orthopedic rehabilitation, clinical testing of the psychological type of attitudes towards one's own disease of patients with extensive acquired maxilla defects after surgical interventions on nasopharyngeal zone cancer was used to test the type of attitude towards the disease. This testing system was named "TOBOL" [1]. That made it possible to optimize the orthopedic treatment protocol depending on the timing of the resection of the maxilla and improve the quality of rehabilitation in each case.

Key words: *quality of life, orthopedic rehabilitation, acquired maxilla defect, obturators, psychosomatic condition of patients*

Corresponding author:**Guyter O.S,**

Federal State Budgetary Educational Institution of Higher Education
«I.P.Pavlov Ryazan State Medical University» of the Ministry of Healthcare
of the Russian Federation.
9, Vysokovoltnaya Street, Ryazan, Russia, 390026.



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INTRODUCTION:

In recent years, the analysis of statistical data on the incidence of malignant neoplasms of the maxillofacial localization showed that maxillofacial tumors account for up to 15% of all dental diseases. Up to 25% of human tumors occur in the maxillofacial region [2]. According to the data of the P.A. Herzen's prevalence of malignant tumors of the oral cavity / skin at the end of 2017 in Russia is 27.2 / 289.4 per 100,000 population.

Surgical resections of the maxilla for neoplasms cause extensive postoperative acquired defects of the maxillofacial region. Acquired defects of the maxilla, especially in the presence of the oronasal connection, invalidate the person. As a result, there are violations in the work of many body functions – there is a decrease in the effectiveness of the masticatory apparatus, disability, change in appearance. Defects of the masticatory apparatus with loss of teeth, lead to significant functional and structural dysfunction in the organs of the oral cavity, gastrointestinal tract and the body as a whole [3]. This leads to the exclusion of such a person from society, makes him closed in relation to the external environment. Adaptive resources of cancer patients are depleted and provided with a high degree of restraint of emotions and self-control [4]. It is known that one of the main points that shape the perception of a person is how to evaluate his appearance surrounding [5]. Such patients need an individual approach and a primary psychological diagnosis, which will make it possible to understand all aspects of the changes, not only in physical condition, but also in the patient's personality, associated with post-resection defects of the midface. Thus, accounting by a dentist is not only the nature of a specific pathology, but also the psychological characteristics of patients, their attitudes to treatment, under current conditions have a direct impact on the quality result and the success of orthopedic correction of acquired defects of the maxillofacial area.

In the course of stomatological orthopedic treatment, several well-known questionnaires are

used to study the psychosomatic condition of patients: EORTC QLQ-H&N35, SF-36, OHIP-14 RU, DIDL.

EORTC QLQ-H&N35 takes into account painful, sensitive, functional and social changes in the patient's condition with oncological diseases, including prior to surgical treatment [6], however, the effect of the acquired maxilla defect on the patient's daily life cannot be assessed using this test. SF-36 and OHIP-14 RU [7, 8] are the most common questionnaires in clinical dental practice. They are widely used to study the quality of life of patients after the treatment of many dental diseases. However, they do not take into account the psychological characteristics of the patient after undergoing surgical treatment of the disease of oncological genesis at particular stages of treatment. The DIDL questionnaire assesses the impact of dental status on everyday life [9], but in its assessment does not take into account the patient's behavioral responses, depending on the disease. Thus, none of the examined tests is fully adapted for assessing the psychological state of patients after surgical treatment of malignant tumors of the maxillofacial area during the stages of orthopedic care and rehabilitation.

As a rule, during orthopedic correction of acquired defects of the maxilla with the presence of an oronasal connection after surgical interventions for oncological diseases of the midface, the attention of the orthopedic dentist is directed to the quality of the replacement design, and not to the patient with his individual perception of the outside world and his illness at different stages of treatment [10]. It is widely known that patients experience deep mental experiences associated with their pathologies. This fact directly affects the success of rehabilitation and the quality of life of the patient as a whole. To identify and analyze the mental background of patients with post-resecting defects of the maxilla, the test method "TOBOL" was used. The rationale for the choice of this technique was the possibility of assessing the dynamics of the process of changing the patient's attitude to his disease, depending on the period of orthopedic treatment at

its different stages. A comprehensive account of the individual perception of his own disease by the patient himself using the "TOBOL" test allows one to diagnose one of the 12 types of attitudes towards the disease, taking into account not only the physiological, but also the psychological state of the patient. The method is presented in the form of a questionnaire, test questions are formed from variants of the patient's attitude to a number of life situations related to his illness. After passing the test, the subjects, on the basis of the data obtained, identify and interpret a certain type of patient's relationship to his illness.

Purpose

To establish a psychological type of attitude towards one's disease among patients with extensive acquired maxilla defects after surgical interventions on nasopharyngeal zone cancer, depending on the timing of maxillectomy.

MATERIALS AND METHODS:

A clinical study was conducted at the Department of Orthopedic Dentistry and Orthodontics with a course of propaedeutic of dental diseases at the Ryazan State Medical University with the participation of patients who had undergone resection of the maxilla in connection with the surgical treatment of nasopharyngeal zone cancer. Clinical diagnoses before surgery were confirmed by morphological verification of biopsy material of

the tumor and lymph nodes. For a clinical study, 14 patients with extensive defects of the maxilla were selected with an oronasal connection. According to the classification of the formed defects of the dentition Kozlov's S.V. (2005) patients were assigned to the 3rd group, according to the classification of acquired defects of the maxilla of V.Yu. Kurlyandsky (1969) – 2nd class. The functions of chewing and speech formation in the subjects are impaired. Orthopedic rehabilitation of each patient was planned using a hollow acrylic obturator. The generally accepted technology with the use of a modified method of obtaining a functional impression (RF Patent for the invention No. 2650588) [11] was the basis for the clinical and laboratory stages of the manufacture of an acrylic obturator. All patients were divided into 2 groups of 7 people. The average age of patients in each group was 62.5 years. The first group (A) included patients who underwent resection of the maxilla 1 year ago. Orthopedic rehabilitation was previously performed using resection and formative obturators. The second group (B) included patients who underwent resection of the maxilla for 1 month backwards. Patients of group B used only a resection plate. In both groups, patients used partial removable acrylic dentures on the mandibula, replacing from 9 to 12 teeth and single-crowns. Patients of groups A and B were tested according to the "TOBOL" method, on the basis of which the results presented below were obtained.

RESULTS:

Table 1: The study results of group A patients

Scales Themes	H	E	A	A	H	N	M	A	S	E	P	D
I	4/4	4/4							4			
II				4		5			4			4
III			3/4									
IV			3/3									
V		5	5									
VI	3								4			
VII			*	5					4			
VIII	4	4/3	4						4			
IX		5	4/4									
X		4	4/4									
XI												
XII	3		5/4	9								
Total	14	22	29	9		5			20			4

If among the approved, selected subjects, even the only expected ones are marked with "*", this is not diagnosed and is not taken into account in the study.

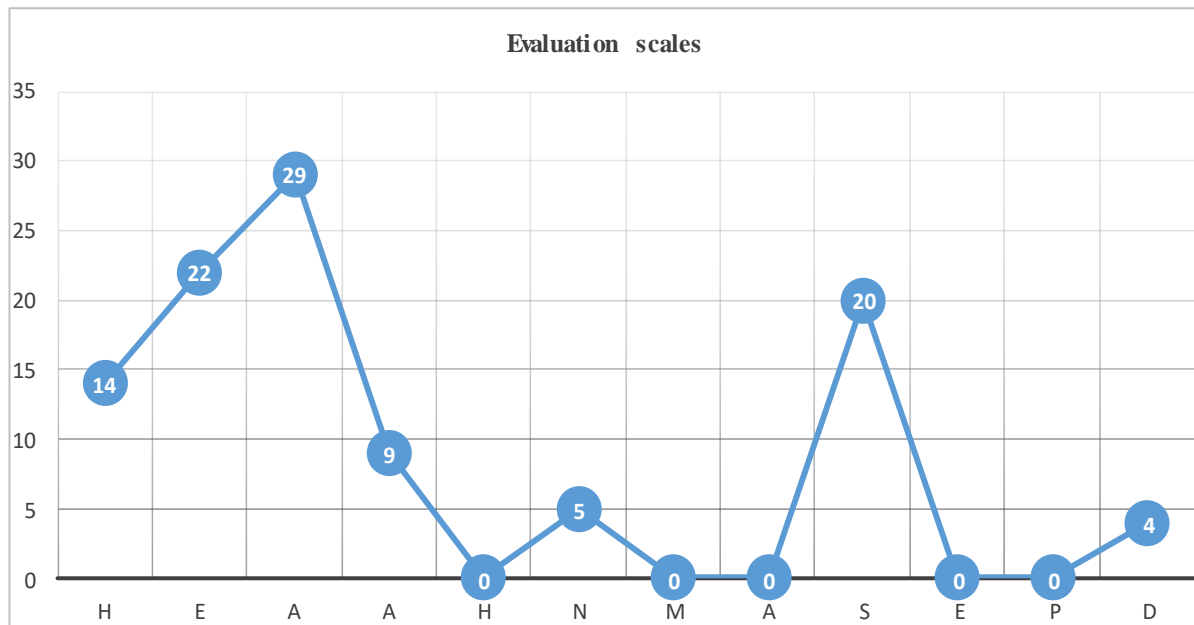


Figure 1: Evaluation of aggregated results scales of group A

According to the data of table 1 and figure 1 (table 1, figure 1), a mixed type (MS) was identified in group A, it includes ergopathic (E) and sensitive (S) types. These types are included in the first block of the combined types of attitudes towards the disease (harmonious, ergopathic, anosognosic types) in which social adaptation is not substantially impaired. And also in the third block (sensitive, egocentric, dysphoric and paranoid types) with an interpsychic, orientation of personal response, which testifies to the mental-disadaptation of patients.

Table 2: The study results of group B patients

Scales Themes	H	E	A	A	H	N	M	A	S	E	P	D
I	4	5				4					3	5
II	2			4	4	4			4	3		
III						4	4		4	3	3	3
IV		3	3		3			3				
V			*		4		5	3		4	4	4
VI	3					4			4			5
VII	3	2							3		4	4
VIII	4	3					5		4			
IX	4			4					4/5			
X	4	4				3	4	4	4			
XI	4	4				4					3	4
XII			*	5	4	3			3		5	4
Total	28	21	3	13	15	26	18	10	31	10	22	29

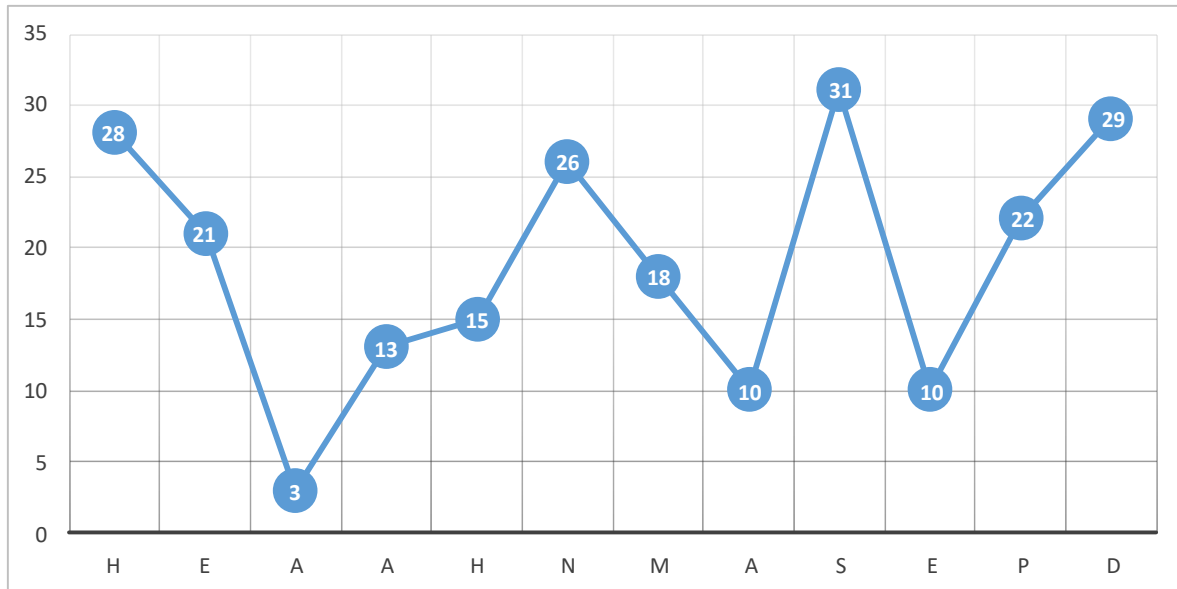


Figure 2: Evaluation of aggregated results scales of group A

The table 2 and figure 2 (table 2, figure 2) present the results obtained as a result of a survey in a group of patients in which all indicators of the level of the second block (neurasthenic) and the prevailing level of the third block (sensitive, dysphoric or aggressive) are presented. The "diffuse" type (NSD) of the relationship to the disease is diagnosed. He is extremely maladaptive in the patient's behavior, respectively, with an intrapsychic orientation. Patients inherent behavior of the type of "irritable weakness".

DISCUSSIONS

Based on the established types of attitudes towards the disease, the psychological state of patients in group A can be interpreted and described as a tendency to distract from the disease using 'going to work' in order to prove their usefulness. Patients seek to immerse themselves in their work and prove to others around the viability of their professional status, regardless of changes in the somatic state (ergopathic state). At the same time, vulnerability and fears are noted that the cause and nature of the disease may adversely affect the attitude of others to the patient, that others may consider it inadequate (a sensitive state).

The revealed psychological background of the patients of group A is due to the postponed surgical intervention about the neoplasm of the maxilla. This fact forms a subjective-objective feeling that there have been noticeable changes in the work of the masticatory apparatus – the actually acquired defect of the maxillofacial region, accompanied by the oronasal connection. This subjective assessment gives patients the basis to be wary of looking abnormal and disabled in comparison with those around them.

The psychological state of patients in group B can be interpreted and characterized as a tendency to irritability arising from pain and difficulties in treatment; patients are impatient in anticipation of

discomfort (neurasthenic condition). Patients fear that others will begin to feel sorry for them, spread rumors about the cause and nature of the disease. They are angry, displeased and sullen. They are inclined to blame relatives and friends for their illness, to envy their health (a sensitive and dysphoric state).

The revealed psychological background of group B patients is due to the fact that they are still in the postoperative period and have not adapted to the defect of the maxillofacial area and clinical and functional changes. Thus, the emotional factor prevails over physical pain or impaired functions. Bright clinical manifestations, such as facial asymmetry, operative wound, healing by primary intention, discharge from the wound, contracture, speech, characterized by open nasal and phonation changes, adversely affect the patient's psychological state. Also an important factor in the subjective assessment of the patient's condition is the impossibility of a full meal, since the presence of the oronasal connection provokes the throwing of liquid and solid food into the nasal cavity, which violates one of the basic physiological functions. These clinical manifestations have active stressors on the psychological state of patients.

The results of the study on the scales of patients in group A indicate mental disadaptation. At the same time, patient behavior indicates a willingness to

improve the outcome and active social functioning. The study suggests that patients in group A seek to interact with the doctor, trust him and are interested in the speedy successful orthopedic correction of an acquired defect in the maxillofacial area.

In patients of group B, psychological maladjustment with an intrapsychic orientation of the response to the disease was revealed. This form is characterized by emotional and affective reactions leading to disruption of the social functioning of patients. The authors suggest that a visual demonstration of the stages of manufacturing a replacement denture, engaging the patient to evaluate the results of the treatment will help to create psychological comfort for this category of patients during the clinical reception.

CONCLUSION:

In group A, a mixed type of attitude towards the disease (MS) was mainly diagnosed. It is due to the period that has elapsed since the surgical intervention (1 year), since over time, patients developed a stable habitual attitude to the presence of a post-resection defect of the maxilla after surgery for cancer, making, according to the subjective assessment of patients, they are incomplete compared with others. However, patients in this group are optimistic about the result of successful orthopedic rehabilitation and are willing to actively cooperate with the doctor. Thus, convincing patients of the ability to compensate for lost functions, making an individual design that makes the most of the anatomical features of each particular acquired maxilla defect, improves the process of emotional perception of the orthopedic treatment performed.

In group B, a diffuse type of attitude towards the disease (NSD) is diagnosed. This is due to the fact that the patients still go through the postoperative period (1 month from the moment of surgical intervention) of the post-resection defect of the maxilla with only the leaking and not finished adaptation period to the maxillofacial defect. In the rehabilitation of such patients, it is necessary to take into account the negative attitude of the patient, his distrust of the results of orthopedic treatment. According to the authors, detailed informing patients about their current state and about the features of the future replacement dentures contribute to the adaptation of patients to changes in the structures of the maxillofacial area and the achievement of a successful outcome of treatment. The authors consider it necessary for the patient to participate in the treatment process in order for the patient to evaluate the functional and aesthetic characteristics of the prosthesis, and the patient's wishes should be taken into account.

The psychological state of the patient is an important criterion in assessing the quality of life of the patient and affects the success of treatment and rehabilitation. The "TOBOL" method puts the type of patient attitude to their own disease a priority. Thus, taking into account the psychosomatic status allows, in combination with clinical diagnostics, to determine the specificity of the interaction and develop an algorithm for working with patients with defects in the maxillofacial area after surgical interventions for cancer, which is the purpose of further research by the team of authors.

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