



## **DENTAL CONDITION OF PERIODONTAL TISSUES IN PATIENTS WITH PSYCHIATRIC PATHOLOGY**

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### **Abstract:**

**Relevance.** According to the results of the study, an increase in the incidence of cerebral palsy (CP) was noted in Uzbekistan; taking these results into account, the authors studied the morphometric parameters and deformations of the teeth and dentofacial system in children and adolescents with cerebral palsy. It has been established that the study population is at a very high risk of developing deformations of the teeth and the dentofacial system, as well as a connection with morphometric growths of the oblique elements of the dentofacial system (ZCHS).

**The purpose of the study** is a comparative study of the clinical and morphological dimensions of the head bones and PTSD in children and adolescents with cerebral palsy and determining the degree of occurrence of dental and dental deformations.

**Materials and methods.** A comprehensive clinical and morphometric study was carried out on 299 children and adolescents, including; 6-9 years - 102; 10-13 years -100; and 14-18 years old -97; by gender - 168 boys and 131 girls: of them - 143 patients with cerebral palsy (main group - MG), 156 patients (control group - CG) without somatic pathology. Parameters of the head, face, ears, bone and dental ages, as well as gnathostomatological parameters were assessed.

**Results.** In children and adolescents, exhaust gas sizes in MV/live PV/L were found to be smaller than in kg. The rate of growth of morphometric parameters of the face in the CG is almost the same, but in the IG they change sharply or remain unchanged and the ratio of the parts of the face does not correspond to the Fibonacci number. It was also found in patients with OH - 49.6% of distal occlusion; -37.8% cross occlusion; -31.6% neutral occlusion; - 29.9% deep incisal occlusion; -25.9% deep incisal disocclusion; - 54.5% narrowing of the lower dentition; -43.3% crowding of teeth in the lower jaw; - 26.6% diastema; - tremor 23.8%.

**Conclusion.** Thus, in children and adolescents with cerebral palsy, the proportions of facial parts do not correspond to the number of fibrillations, as a result they lead to deformation of the facial bones, including numerous pathologies of the teeth and facial bones.

**Keywords:** anomalies and deformations of teeth, cerebral palsy, bite.

**RELEVANCE.** It is known that, in the view of society, people with psychiatric illnesses (MH) are more expected to engage in dangerous actions that pose a threat to the life and health of others, and shameful actions [1,3,5]. It is a common belief that patients with PM; schizophrenia, depression, alcohol or drug addiction are more dangerous to themselves and others than people with "ordinary everyday" problems

[Martine et al., 2000]. Also, more often there is information about the problems of dental care for patients with problems in the field of health care, who have an established diagnosis of this diagnosis. At the same time, everyone knows that in a state of exacerbation of mental pathology (MP) and in diseases that exclude the possibility of establishing contact with a doctor, dental care is provided under conditions of



general anesthesia [2,4,6]. It is known that patients with PM often violate the diagnostic and treatment plan, show inconsistency, and often change doctors. Therefore, it is difficult to achieve good results from dental treatment of such patients [Martynova S. A., 2009; Lukhanina T.V., 2009, Isaeva E.R., 2017].

A number of studies have established that the psychological status (PS) of patients has a significant impact on both the clinical course of diseases and the behavioral characteristics of patients [Budnevsky A. V., 2009]. The pain reaction in anxious-phobic patients is accompanied by an increase in the values of indicators of hostility, anxiety, depression and increased tactile sensitivity [Ishinova V. A., 2010], in addition, chronic somatic disease changes the level of mental capabilities of a person's activities [Bozhovich L. I., 1968 ; Nikolaeva V.V., 1987].

Thus, the need is determined to develop an algorithm for safe and effective dental diagnosis and treatment of patients with mental health issues in an outpatient setting in a medical institution not intended to provide assistance to patients with mental health problems, taking into account state legislation.

**PURPOSE OF THE STUDY** -To determine effective diagnostic methods and treatment for patients with mental illness, in outpatient and inpatient settings.

**Table No. 1.**  
**Distribution of study group patients by diagnosis and gender**

Diagnosis	Number of patients by age group, people. (%)				
	Total	18-24 years old	25-34 years	35-49 years old	50-70 years
Schizophrenia (M/G-1)	217/100%	38/17.5%	71/32.7%	82/32.8%	26/12%
Epilepsy (M/G-2)	181/100%	40/22.1%	48/26.5%	65/35.9%	28/15.5%
Oligophrenia (M/G-3)	245/100%	68/27.7%	59/24.1%	78/31.8%	40/16.3%
Dr. for. psychosis (M/G-4)	207/100%	59/28.5%	75/36.2%	45/21.7%	28/13.5%
Total observ.-e for M/G	850/100%	205/24.1%	253/29.7%	270/31.8%	122/14.3%
C/G	175/100%	22/12.6%	57/32.6%	59/33.7%	37/21.1%
Total survey	1025/100%	227/22.1%	310/30.1%	329/32.1%	159/15.5%

During the dental examination, the depth of the vestibule of the oral cavity, the attachment of the frenulum of the upper and lower lips (v/g, n/g) of the tongue, examination of the oral mucosa and lips, cheeks, hard and soft palate, and tongue were assessed. An examination of the dentition and periodontal tissues was also carried out.

To assess the hygienic state of the oral cavity, the Oral Hygiene Index-Simplified (OHI-S) was used - a simplified Green-Vermillion oral hygiene index (IGR-U) (JCGreen, JRVermillion, 1964). The index does not require the use of special dyes and allows you to

#### **MATERIAL AND METHODS.**

To assess the dental condition and for the purpose of further conducting dental research in a retrospective and prospective manner, 850 patients with dental disease (main group - M/G) and 175 patients were selected as a control group (C/G) without dental disease pathology, aged from 18 to 70 years, who turned to a dentist of their own volition. Of the examined patients with mental illness, 52.8% were men, 47.2% were women, while epilepsy accounted for 58.4% among men; schizophrenia - 57.6% among women, and oligophrenia also accounts for 28.8% of cases among the general population examined, regardless of gender. The quantitative and percentage ratio between groups by diagnosis (M/G -1, 2, 3, 4) are more fully consistent for statistical processing and as a comparative group between M/G. In C/G there were 56% men, 44% women, which fully meets the requirements for statistical processing as C/G. By age, 35-44 years old in M/G - 31.8%, in C/G 33.7%, also 32.1% of the overall study, while 35.9% were epileptic patients 35-49 years old, 36.2% were other forms of psychosis aged 24-34 years (Table No. 1).

determine the amount of plaque (DI-S) and tartar (CI-S).

In order to determine the relationship between foci of chronic infection of OC and general somatic diseases and assess the influence of OC pathology on the severity of the general condition of the body, a modified risk index for chronic oral sepsis (RCOS-M) OC was used [Leus P. A., 2010].

The effectiveness of local anesthesia was assessed subjectively using an analogue visual scale (AVS). The scale is divided into two parts: "patient" and "doctor". To determine the intensity of pain, a



percentage scale is used - from 0 to 100%, and descriptor words that help clarify the result. The researcher used the extreme limits of the depth of pain relief at the ends of the scale - "the clinical effect of pain relief is expressed in full", that is, the results of pulse and blood pressure correspond to the initial level, and electrical excitability during electroodontodiagnosis (EDD) is more than 100  $\mu$ A", and "clinical effect - anesthesia has not occurred," that is, the pulse and blood pressure values are increased by 15% or more relative to the initial level, electrical excitability is in the range from 2 to 24  $\mu$ A.

Using the Sensoest device, we determined a person's sensory thresholds, which allows us to determine the patient's emotional state and his need for premedication. Also, Electroodontodiagnosis was carried out using the IVN-01 PULPTEST-PRO apparatus.

To carry out invasive dental procedures, drugs were used based on 4% articaine solution with the addition of the vasoconstrictor epinephrine at a concentration of 1:200000 and 4% articaine solution with a vasoconstrictor at a concentration of 1:400000, with 4% Articaine r/r with a vasoconstrictor 1:400,000 was obtained extemporo by combining in a 1:1 ratio the drug with a vasoconstrictor at a concentration of 1:200,000 (UltracainDS) with 4% articaine r/r without a vasoconstrictor (UltracainD).

In order to determine the pain sensitivity of the oral mucosa (ORM), an "Esthesometer" was used [7,9,11]. also, for to prevent injuries to the gingival papilla in the manufacture of private removable dentures, the method of isolating the gingival papillae

using heat-resistant silicone materials was used; to determine and manufacture high-quality dentures based on the CAD-CAM system, the classification of the torus was used depending on the pain sensitivity of the mucous membrane [8,10,12,14].

Also, physical and biological tests were carried out on consumables for removable dentures; such as Villarlil H Plus (PolidentPink) [13,15].

Also, for fear of a biased attitude towards himself on the part of the medical staff, the patient, when collecting his anamnesis, may not inform the dentist about the presence of PM and the psychotropic drugs he is taking, which, when interacting with local anesthesia or drugs during dental procedures, can provoke emergency conditions.

Also, when communicating with this group of patients, we adhered to the following technique of conflict-free communication with the patient. Polite address only as "you", by name and patronymic, in a calm, measured voice. In relation to the patient, the doctor was at arm's length. The partnership model of relationship with the patient was actively used. Before starting dental treatment procedures, patients are scheduled to undergo diagnostics of their functional state; that is, measuring blood pressure (BP). It is known that during psychoemotional disturbances changes in blood pressure are often observed. After the consent of the patient and the psychiatrist for the dental treatment, we carried out the following methods of therapeutic, preventive and restorative manipulations in patients according to indications (Table No. 2)

**Table No. 2**  
**Dental care provided to patients with mental illness**

Type of dental care	Number of carried out interventions in 152 patients with PM
Examination, consultation, drawing up a plan for comprehensive sanitation of the oral cavity	152/100%
Conducting local anesthesia; infiltration and conduction anesthesia.	68/44.7%
Treatment of caries and its complications	80/52.6%
Treatment of periodontal diseases (curettage and flap operations)	38/25%
Planned tooth extraction for chronic periodontitis	25/16.4%
Tooth extraction due to exacerbation of chronic periodontitis	18/11.8%
Turning for the purpose of orthopedic prosthetics	40/26.3.8%
Determination of the pain sensation of the mucous membranes using special devices	25/16.4%
Orthopedic prosthetics	38/25%
the number of procedures performed was 462 for 152 patients.	462/100%

Validated scales were used as survey instruments: the Hospital and Outpatient Anxiety and Depression Questionnaire (HADS), the Hamilton Depression Rating Scale (HDRS), the Spielberger-

Hanin Trait and Reactive Anxiety Scale, the Whiteley Hypochondria Index, and the Visual Analog Scale (VAS) for assessing severity of pain.



The determination of saliva viscosity was carried out using a capillary viscometer. Also, the pH of saliva was measured using a portable electronic pH meter. Statistical data processing: using variational statistical methods, the following were calculated: the average value  $M$ , standard deviation -  $\sigma$  and arithmetic mean error -  $m$ ; the data was processed in the Statistica program.

### RESULTS DISCUSSION.

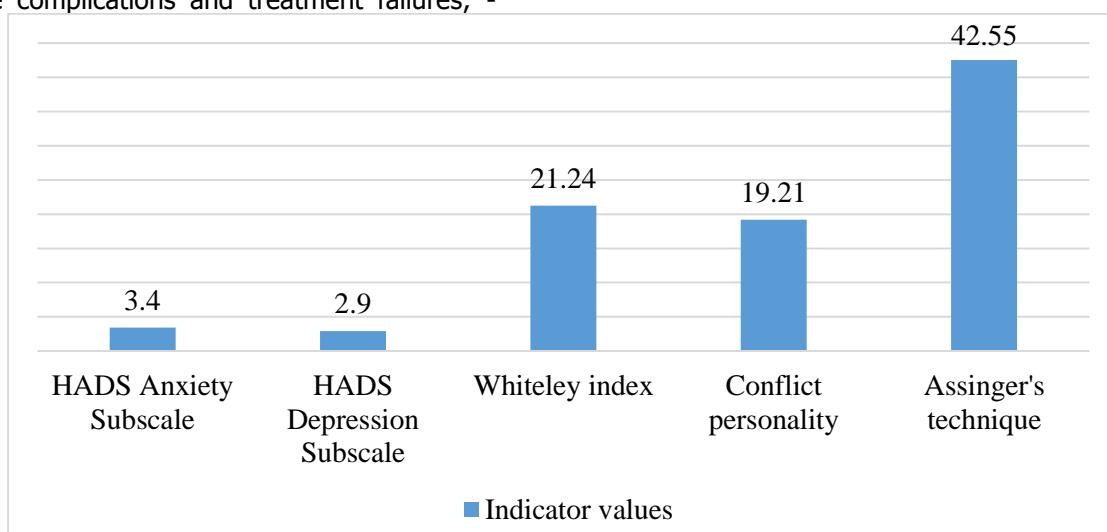
The results obtained from a sociological study among 50 dentists obtained the following results: - 8 (16%) respondents indicated the frequency of occurrence was 1 patient with PM per year; - 9 (18.0%) - the incidence was indicated by 1 patient with PM per quarter; - 13 (26.0%) indicated 1 patient with PM per month; 13 (26.0%) indicated 1 patient with PM per week; 2 (4.0%) indicated 1 patient with PM per day, also t5 (10%) of the surveyed doctors experienced difficulties in diagnosing PM.

Symptoms By which dentists assumed atpatient presence with stages of mental health: - increased anxiety; -excessive suspiciousness, fixation on possible complications and treatment failures; -

exaggeration of symptoms, constant search for new symptoms of the disease; - depressive statements; - disbelief in recovery given the existing positive dynamics; -pessimistic view of treatment; - increased irritability; - the clinic does not comply with complaints; - demand for increased attention to oneself.

Actions of the surveyed doctors who suspected PM in their patients: - 22 respondents (44%) - provision of dental care; - 12 (24%) - refusal of treatment; - 5 (10%) - referral to other dentists; - 1 (2%) - referral to a psychiatrist and 10 (20%) - satisfaction of inadequate demands of patients.

Whiteley index scores reflected the low likelihood of hypochondriasis in patients. Using the "Conflict Personality" method, it was revealed that 18 patients will not avoid conflicts, and 12 people themselves are prone to provoking conflict situations and may look for a reason for their occurrence. When determining the tendency to aggressive behavior using Assinger's method, increased aggressiveness was revealed in all subjects. Figure No. 1



**Figure No. 1 Diagnosis of mental illness in patients with signs of aggressive behavior in points.**

It should be taken into account that, fearing a biased attitude towards himself on the part of the medical staff, the patient, when collecting his anamnesis, may not inform the dentist about the presence of PM and the psychotropic drugs he is

taking, which, when interacting with local anesthesia, can provoke emergency conditions. When analyzing the information base of the drug formulary of the Bukhara Regional Psychiatric Hospital, the following data was found:

MAINLY DRUGS AFFECTING THE CENTRAL NERVOUS SYSTEM			
Sleeping pills			
1	Midazolam		Solution for injection 15mg/3ml
Anticonvulsants			
2	Phenobarbital		tablets 100mg



		Powder	
<b>PSYCHOTROPIC DRUGS</b>			
Neuroleptics			
3	Levomepromazine	tablets 25mg	
		Solution for injection 25 mg/ml	
4	Trifluoperazine	tablets 5mg 10mg	
		Solution for injection 2 mg/ml	
5	Olanzapine	tablets 2.5 mg 5 mg 7.5 mg 10 mg 15 mg 20 mg	
Tranquilizers			
6	Alprazolam	tablets 0.25 mg 0.5 mg 1 mg	
Antidepressants			
7	Amitriptyline	tablets 10mg 25mg 50mg	
		Solution for injection 10mg/2ml	
8	Mirtazapine	tablets 15mg 30mg 45mg	
<b>ANALGESIC DRUGS</b>			
Non-narcotic analgesics			
9	Metamizole sodium	tablets 500mg	
		Solution for injection 250 mg/ml 500 mg/ml	
		suppositories 100 mg 250 mg	
		Powder	
Nonsteroidal anti-inflammatory drugs			
10	Diclofenac	tablets 25mg 46.5mg 50mg 75mg 100mg	
		capsules 75mg 100mg	
		Solution for injection 25mg/ml 3ml 75mg/3ml	
		suppositories 12.5 mg 25 mg 50 mg 100 mg	
		autumn drops 0.1%	
		ointment and gel for application to the surface 10 mg/ml	
<b>MAIN EFFECT ON PERIPHERAL CHOLINERGIC PROCESSES</b>			
Cholinomimetics and anticholinesterase agents.			
eleven	Galantamine hydrobromide	Solution for injection 0.5%	
		tablets 5mg 10mg	
<b>PATHOLOGICAL DRUGS OF THE GASTROINTESTINAL SYSTEM USED FOR ITS TREATMENT</b>			
Antiemetics			
12	Metoclopramide	tablets 10mg	
		Solution for injection 5mg/2ml 10mg/2ml	
Remedies for gastrointestinal ulcers			
13	Ranitidine	Solution for injection 25mg/ml 2ml 50mg/ml	
		tablets 150mg 300mg	
Flow pump inhibitorlari			
14	Omeprazole	diaphilized for injection 40mg	
		capsules 20mg 40mg	



Taking into account the pharmacological interaction of anxiolytics, antidepressants and neuroleptics with local anesthetics determined the choice of local anesthetic drugs for dental treatment with tomatological state of OC in patients with PM.

The results obtained on the dental condition of the OC confirm that the state of the hard tissues of the teeth in the OC has revealed multiple lesions of the hard tissues of the teeth with caries and extracted teeth with their complications. At the same time, in patients with C/G, caries (1.64) and extracted teeth (1.02) occur very little; filled teeth (8.42) are very much compared with patients with M/G. Also, the average number of extracted teeth in the groups of mentally ill patients was significantly ( $p<0.05$ ) higher than in the C/G group. In all studied groups according to the Y element from the intensity of the KPU, the majority of patients in the PM needed complex prosthetic designs (from 65.5 to 98.5%), and in the C/G patients examined only one dental prosthesis was needed. Also, the number of patients with prosthetics who do not need prosthetics was almost undetected, and the need for prosthetics of both jaws was 75.5%.

Examination of the OC examination determined the level of hygiene of the OC, gingival index - GI, CPITN index to determine the condition of periodontal tissues and the RHOS index or inflammatory process of periodontal tissue. Thus, the average data on the plaque index scale corresponded to the upper limits of satisfactory hygiene in OC, the average number of carious teeth in a patient in this group corresponded to 2.02, the average data on the gingival index GI corresponded to the indicators of moderate gingivitis, the average number of teeth with existing apical periodontitis - 2.46, the average CPITN in groups from - 1.84 to 2.04, the average number of pathologically mobile teeth in a patient in the group, respectively, was 1.94. It should be noted that when examining the OC of patients with PM, food remains were observed in the interdental spaces and cervical areas, and a putrid odor emanated from the OC.

Based on the results obtained, a correlation analysis was carried out between the values of the parameters of GC, GI-PR and the intensity of damage to hard dental tissues and periodontal tissues; in the 1st group of subjects, there was an average correlation between the value of GC viscosity and the intensity of caries ( $r = 0.57$ ). As for the components of the CP index, it turned out that in M/G patients there is an average correlation between the number of carious and extracted teeth and the value of GC viscosity ( $r = 0.51$  and  $r = 0.56$ , respectively), while there is a weak correlation with the number of filled teeth ( $r=0.37$ ).

In patients of groups 1 and 3, a strong correlation was found between the pH value and the intensity of caries ( $r = 0.62$ ). Thus, between the number of carious teeth and the pH value of saliva, except for the 3rd group of those examined, an average correlation is observed ( $r = 0.56$ ), and for extracted teeth this indicator reaches a high level ( $r = 0.61$ ). For filled teeth, there is a weak correlation between this indicator and the pH value of saliva ( $r = 0.24$ ).

In C/G, the viscosity value of the gastric mucosa ( $1.922 \pm 0.028$  Sp) was significantly ( $p<0.05$ ) lower than in the groups of mental patients. At the same time, in PZ the environment-pH of saliva, as it turned out, this indicator is subject to significant fluctuations. The intensity of damage to periodontal tissues in the M/G of the examined patients has a high correlation with the viscosity value of the gastric mucosa and the PR hygiene index ( $r = 0.61$  and  $r = 0.67$ , respectively); a weak correlation was revealed with the pH value of saliva ( $r = 0.25$ ).

In the M/G-3 group, there is a strong correlation between the value of GC viscosity and the intensity of caries ( $r = 0.61$ ). There is a strong correlation between GC viscosity and the number of carious and extracted teeth ( $r=0.62$  and  $r=0.61$ , respectively), as well as a weak correlation with the number of filled teeth ( $r=0.42$ ).

However, it should be noted that acute inflammatory processes in periodontal tissues in patients with mental disorders are rare. This is probably due to the use of medications, which may also have an anti-inflammatory effect, as well as the consumption of predominantly liquid and soft foods, which eliminates traumatic damage to the gums.

Analysis of the results shows that in M/G-1 and 2 surveyed, the prevalence of periodontal diseases was 88%-92%, respectively. Most often, 25.7% of patients in this group have a periodontal pocket of 4 or 5 mm, which is 2.2 times higher than the prevalence of a periodontal pocket with a depth of 6 mm. In C/G, the prevalence of periodontal diseases was 76%.

Most often, patients in this group observed bleeding gums (28.7%), with an average intensity of 1.72. Dental calculus was detected in 1.54 sextants, the prevalence of this symptom was 25.6%. The average number of sextants with periodontal pockets with a depth of 4-5 mm and 6 or more mm was 0.64 and 0.06, respectively. It should also be noted that in the C/G group only 0.06 excluded sextants were determined. Healthy periodontium was defined as 1.98 sextants. As for bleeding, the values of this indicator are statistically significantly lower ( $p<0.05$ ) in all M/G compared to C/G. Gum bleeding in C/G is 23.4% higher than this indicator compared to M/G-1 and by



9.3%, 8% and 6% compared to M/G-2, 3, 4 respectively. The presence of tartar or other factors that delay dental plaque in M/G patients is from 8.4% to 15% higher than in those examined in C/G ( $p < 0.0001$ ).

Analysis of the results shows that the sensory thresholds of patients with schizophrenia (M/G-1) and oligophrenia (M/G-3) were closer to C/G ( $p > 0.05$ ), as for the rest of the study groups - epilepsy (M/G-2) and other group of psychoses (M/G-4), then the highest value of the sensitivity threshold is in patients who are from 1.5 to 2 times higher than the value of this indicator ( $p < 0.05$ ). In patients of groups 2 and 4, the sensitivity threshold is higher than in those examined in groups 1 and 3 ( $p < 0.05$ ). The pain threshold in the examined C/G was significantly lower ( $p < 0.05$ ) than in the rest of the group (M/G).

As for the endurance threshold, in C/G this indicator is significantly lower than in M/G patients ( $p < 0.05$ ). The highest threshold of endurance was found in patients M/G-1 and 2; in these patients it turned out to be significantly higher compared to the examined M/G-3, 4 ( $p < 0.05$ ). In patients M/G-4, this figure is 1.3 times higher than in patients examined M/G-3 ( $p < 0.05$ ), and also significantly exceeds the endurance threshold in C/G ( $p < 0.05$ ). Analysis of the results obtained shows that in M/G-2, 4 the examined patients are dominated by patients with high sensory thresholds, which

constitute about 60% and 75% respectively of all examined in this group.

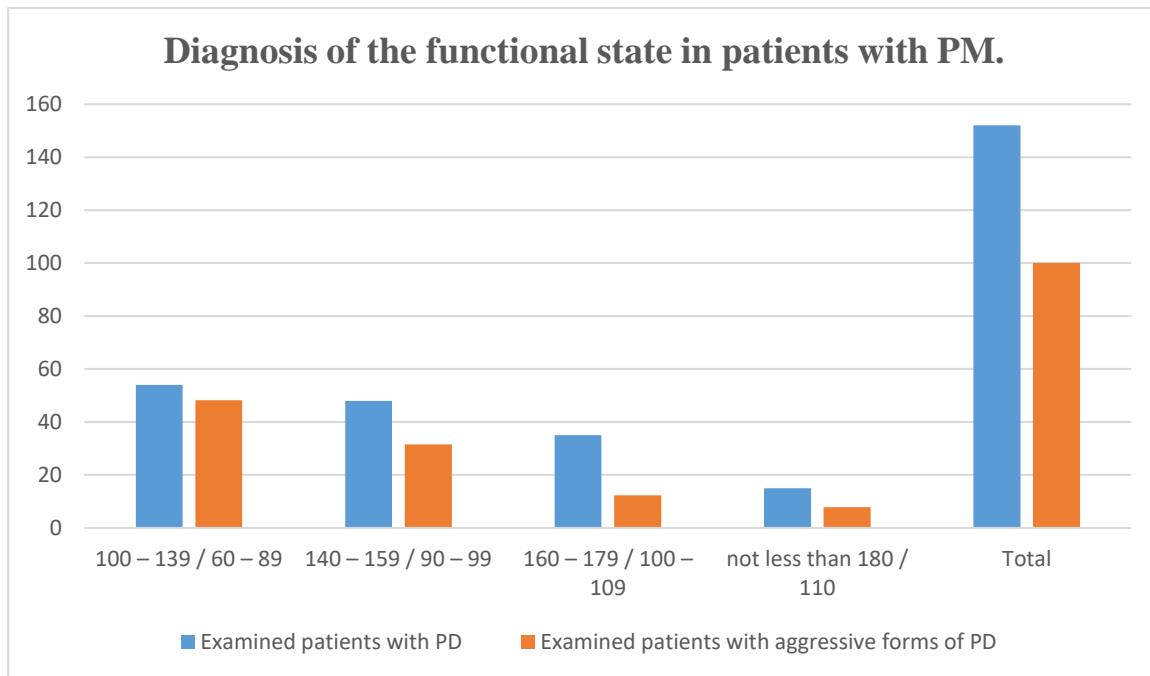
Analysis of the data obtained shows that among the groups of patients in PM, patients with low sensitivity thresholds are less common ( $p < 0.05$ ), with the exception of patients M/G-3 and 4. Patients with medium and high sensitivity thresholds are found significantly more often in C/G ( $p < 0.05$ ) than low sensitivity thresholds. As for patients with high sensory thresholds, in groups of mentally ill patients, including aggressive behavior, their indicators were multidirectional ( $p < 0.05$ ), compared with C/G.

The effectiveness of local anesthesia in patients of all study groups in the treatment of periodontal disease and during orthopedic manipulation (teeth preparation) (Figure No. 2)



Evaluation of the effectiveness of pain relief was carried out using an analogue-visual scale of the effectiveness of local anesthesia when performing basic dental interventions with C/G indicators of

electrical excitability of the dental pulp and an assessment of the dynamics of cardiovascular indicators or the severity of blood pressure values are reflected in Figure No. 3



Taking into account the identified features of interaction with patients, their dental status and the choice of local anesthesia, we provided the following dental care to patients with PM.

We carried out orthopedic treatment for patients with PM, using both a new technique and technology recommended by the authors [14] (Figure No. 4.).



Figure. 4. B. Timely use.

To study the condition of sharp bony protrusions in the form of a torus, we conducted clinical and laboratory studies in 20 patients requiring partial and complete removable prostheses made of M/G, including a thorough study of the anatomy of the torus, the functional state of the mucous membrane by measuring its pain sensitivity and a harmonious system for isolating the torus on the removable plate prosthesis. In total, we manufactured 48 prostheses for patients with PM; of which 10 were prostheses for a patient with an aggressive form of prostate cancer. Also, with complete absence of teeth on both jaws, 30 dentures were made; with complete absence of teeth on the upper part and partial absence of teeth on the

lower part, 18 dentures. For patients with complete absence of teeth, dentures with a soft lining from UFI gel N (Germany) are made.

Such bone formations are an unfavorable factor for prosthetics.

To solve unfavorable factors for prosthetics or bone formation, we isolated the torus using the following method: P20 patients with secondary complete edentia of both jaws were enrolled. Of these, 10 patients were manufactured with complete removable dentures using traditional technology, combined with digital technology, and 18 patients using the digital method (CAD/CAM and 3D).

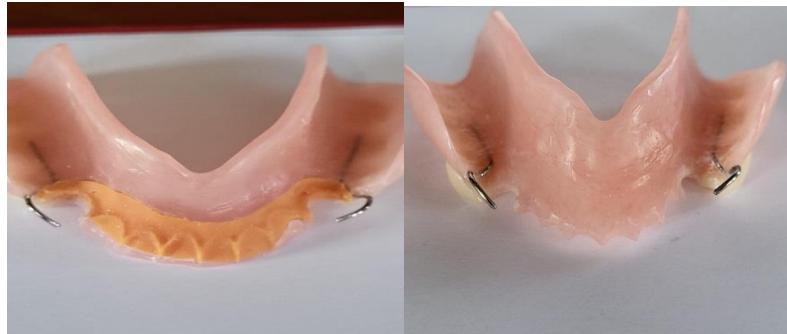


Figure. 5.G. Finished acrylic partial Fig. removable denture with silicone plate

6. D.. Finished partial removable denture after removing the silicone plate

Improved functional qualities allowed patients to fully use prostheses right from the first days. There were complaints of pain in individual points under the prosthesis, which were easily eliminated. The patients fully performed the act of chewing and felt comfortable. After 3-10 days, the patients fully adapted, successfully used the prostheses and had no complaints, noted better fixation of the prostheses, no pain under the prosthesis, but some remained wary of pain or possible breakage of the prostheses.

Clinical studies over time (6, 90, 365 days) showed that the use of soft linings in removable prosthetics led to good fixation of complete removable

dentures in 72.7% of cases, satisfactory fixation in 27.3% of cases.

An analysis of the results after treatment shows that the value of the caries intensity index in all M/G is almost 30 to 60% lower before treatment ( $16.57 \pm 0.42^*$ ), and the effectiveness of complex treatment is greater than in C/G ( $8.04 \pm 0.64$ ) ( $p < 0.05$ ). The average value of the KPU index in all groups of those examined was significantly higher ( $p < 0.05$ ) than in the C/G; also, in all studied groups, positive indicators were established for element U after prosthetics.

**Table No. 4**

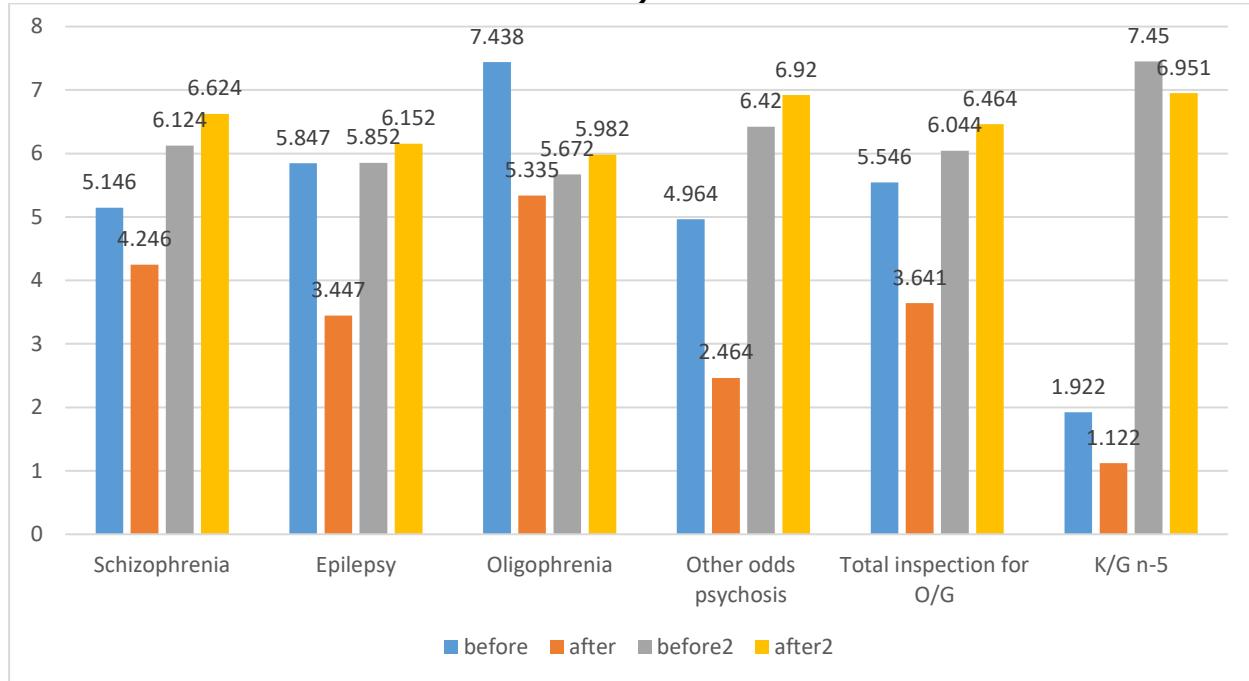
**Assessment of the hygienic state of the oral cavity in patients with oral cavity before and after treatment.**

Diagnoses and groups	Hygiene Index PR (GI PR)				
	M±n in %		Patients with aggressive behavior		
	before	after	before	After	
Schizophrenia; M/G-1 n-85/100%	2.88±0.0 3*	1.58±0.0 3*	Schizophrenia; n-40	2.98±0.01*	2.2±0.01*
Epilepsy; M/G-2 n-85/100%	2.43±0.0 8*	2.03±0.0 8*	Epilepsy; n-28	2.88±0.04*	2.18±0.04*
Oligophrenia; M/G-3 n-105/100%	2.78±0.0 4*	2.08±0.0 4*	Oligophrenia; n-32	3.0±0.01*	2.38±0.01*
other odds psychosis M/G-4 n-135/100%	2.22±0.0 8*	1.62±0.0 8*	other odds psychosis n-25	2.44±0.06*	2.02±0.06*
Total observ.-e for M/G n-410/100%	2.52±0.0 6*	1.72±0.0 6*	Total obs. n-125	2.55±0.01*	1.8±0.01*
C/G n-90	0.46±0.0 4	0.24±0.0 4	K/G n-5	0.46±0.04	0.42±0.04

After carrying out treatment and preventive measures among patients with PD, it was possible to find out that during general treatment in the hospital, their feeling of PD improved (in 65%), and less often increased salivation (in 17%), which occurs after taking medications.



**Substrates of the organism under study, M±n in %. Viscosity of oral fluid and pH of saliva (Figure No. 7)**



Depending on the values of sensory thresholds, 3 groups of patients are distinguished; that is, with low sensitivity thresholds; They are characterized by a high level of emotional tension; - patients with average threshold values; They are characterized by - average levels of tension, anxiety and - patients who have high sensory thresholds and do not need premedication.

As for the endurance threshold, in the control group this indicator was significantly lower than in patients of the first, second and fourth groups ( $p < 0.05$ ). The highest threshold of endurance was

found in patients of the second and first groups; in these patients it turned out to be significantly higher compared to those examined in the third and fourth groups ( $p < 0.05$ ). In patients of the fourth group, this indicator is 1.3 times higher than in those examined in the third group ( $p < 0.05$ ), and also significantly exceeds the endurance threshold in the control group ( $p < 0.05$ ). The remaining differences are statistically insignificant.

During our study, patients were distributed into groups according to initial sensory thresholds as follows (Table No. 5).

**Characteristics of sensory sensitivity thresholds in patients with mental illness, including aggressive forms.**

Study Groups	Patients with PM depending on sensory thresholds						PM patients with aggressive forms depending on sensory thresholds					
	Low thresholds of feeling		Average thresholds of feeling		High thresholds of feeling		Low thresholds of feeling		Average thresholds of feeling		High thresholds of feeling	
	before	after	before	after	before	after	before	after	before	after	before	after



Schizophrenia; M/G-1 n-85	34.4%	15.8%	9.6%	23.8%	9.4%	20%	Schizophrenia agr form.; n-40					
Epilepsy; M/G-2 n-85	34.4%	35.8%	49.6%	23.8%	29.4%	40%	Epilepsy aggressive forms. n-28					
Oligophrenia; M/G-3 n-105	thirty%	30.9%	25.2%	44.7%	30.6%	49.4%	Oligophrenia aggression forms. n-32					
other odds psychosis M/G-4 n-135	thirty%	40.9%	35.2%	44.7%	40.6%	44.4%	other odds Psychotic aggression forms. n-25					
Total observ.-e for M/G n-410	35.6%	53.3%	65.2%	31.5%	60%	30.6%	Total obs. n-125					
C/G n-90	35.6%	21.3%	15.2%	31.5%	thirty%	15.6%	K/G n-5					

Analysis of the data obtained shows that among the groups of patients with PM, patients with low sensitivity thresholds are less common ( $p < 0.05$ ), with the exception of patients of the third and fourth groups. Patients with medium and high sensitivity thresholds are found in C/G significantly more often ( $p < 0.05$ ) than with low sensitivity thresholds. As for patients with high sensory thresholds, in groups of mentally ill patients, including aggressive behavior, their indicators were multidirectional ( $p < 0.05$ ), compared with the control group.

## CONCLUSION.

Thus, the dental status of patients with dental caries is characterized by a high intensity of dental caries ( $20.67 \pm 0.82^*$ ); including; with diagnoses of schizophrenia -  $21.52 \pm 0.98^*$ ; epilepsy -  $22.86 \pm 0.94^*$ ; oligophrenia -  $19.64 \pm 0.78^*$ ; - other mental illnesses -  $18.66 \pm 0.98^*$ ; at the same time, among the examined C/G -  $11.44 \pm 0.62$  due to the large number of carious and extracted teeth and the high need for prosthetics from  $8.2 \pm 0.48$  to  $9.4 \pm 1.4$  of which the need for prosthetics is more than three teeth one jaw from  $4.8 \pm 0.44$  to  $5.8 \pm 0.80^*$ ; At the same time, the need for more than 3 teeth is equal to that of K/G. The state of OC in patients with PZM is characterized by a high prevalence of periodontal tissue disease - 82%; high

risk of chronic oral sepsis - 13.3%, unsatisfactory oral hygiene; DI-S plaque index -  $1.1 \pm 0.14$  points; GI-chronic gingivitis -  $1.25 \pm 0.07^*$ ; apical periodontitis -  $1.3 \pm 0.86$ ; CPITN - chronic periodontitis -  $1.24 \pm 0.44^*$ ; PPV - pathological mobility of teeth -  $0.55 \pm 0.94^*$ ; while in patients with A/F PM;  $-1.7 \pm 0.24$ ;  $-1.85 \pm 0.44$ ;  $-1.7 \pm 0.4$ ;  $-2.25 \pm 0.24$ ;  $-1.08 \pm 0.06^*$  resp.

The effectiveness of infiltration anesthesia during intravenous administration of 4% ras/rum articaine with a vasoconstrictor 1:200,000 was 88.32%; 4% articaine ras/rum with epinephrine 1:400000 was 86%; on the lower part in the area of the frontal group of teeth was 87.9%; 4% articaine ras/rum with a vasoconstrictor 1:400000 was 86.4%; The results give us the choice of effective local anesthesia in patients with PM in an outpatient dental appointment. At the same time, in carrying out general anesthesia when providing ostomy. help is needed by patients with mental illness who are unable to adequately perceive and fulfill the doctor's requirements due to the characteristics of the course of the underlying disease.

Use of new clinical classification of the torus and methods of its isolation; the use of a new device for determining the sensitivity of the mucous membrane - "Esthesiometer", also taking into account the physical and mechanical properties of materials, a modified



method of manufacturing prostheses using digital technologies, established methods for efficiency at times, for the quality of the prosthesis and their material and clinical characteristics for patients with prosthetic diseases.

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