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ABSTRACT
of the dissertation for the degree of Doctor of Philosophy

ASSESSMENT OF PATHOLOGY OF THE MAXİLLOFACİAL REGİON IN CONSCRİPTS

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Field of science: Medicine

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GENERAL DESCRIPTION OF WORK

Relevance of the topic. The Government of the Azerbaijan Republic is widely and consistently implementing a program of socio-economic reforms aimed at further improving the well-being of the country's workers. Particular attention has been and will be paid in the future to the protection and strengthening of the health of young men - the future defenders of the country.

The Azerbaijan Army has a number of specific requirements regarding the health of military personnel, in particular their dental status.[1]

New global goals for oral health introduced by the International Association for Dental Research expand the systematic review of oral health, which has become important in terms of clinical application and cost-effectiveness.[2]

Knowledge of oral and maxillofacial pathology affecting these people is important for dental practitioner.[3]

The rates of dental pathology is negatively influenced by a whole range of factors, including environmental, social, climatic, geographic, demographic, and economic.[4]

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Currently, the number of conscripts who do not meet the health criteria required for service is tending to increase.[5] In children and adolescents, many lesions and anomalies of the soft tissues of the oral cavity are detected, the frequency of which is low and makes diagnosis difficult.[6]

The conditions that determine the successful completion of military service are the state of health, moral and business qualities of the conscript and positive motivation for conscription.[7]

Regulatory documents regulating the examination of conscripts were established by the decision of the Cabinet of Ministers of February 29, 2008 No. 59 and include the "Regulations on military medical examination", as well as the "List of diseases". When conducting a medical examination, articles 10,54,55,56 and 80 in the list of diseases refer to dental status.[8]

However, analyzing the items of this document in relation to assessing the dental status of conscripts, we did not find sufficient criteria for the interaction of the severity of the pathology with the degree of functional impairment. Understanding and substantiating these relationships will improve the physical and psychological aspects of the health of future military personnel of army units in the Republic of Azerbaijan.

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In this regard, optimization of the complex of treatment and preventive measures that help reduce the number of young men who, due to their dental status, may be restricted or exempted from military service, is of particular relevance today.

Object of research. The clinical material of the study included of 432 males aged 16 to 35 years with maxillofacial pathology, sent to the Department of Maxillofacial Surgery the Clinical Medical Center in Baku by medical commissions of the State Service for Mobilization and Conscription.

Aim of the study. Study of dental health among conscripts with maxillofacial pathology and optimization of measures to impruve it.

The study objectives:

1. Identification of the prevalence of maxillofacial pathology among pre-conscription and conscripts.
2. Determination of the structural features of the pathology of the maxillofacial region in pre-conscription and conscripts.
3. Analysis of the regional dynamics of the incidence of maxillofacial pathology among pre-conscripts and conscripts.
4. Evaluation of the effectiveness of therapeutic and preventive work in pre-conscription persons in private and public dental clinics.
5. Analysis of the discrepancy between the degrees of dental pathology in conscripts with the severity of masticationn dysfunction in terms of suitability for military service.
6. Optimization of measures for dental medical examination of pre-conscripts and conscripts.

Research methods: clinical, laboratory, radiological and statistical.

The main provisions for the defense:

- Results of a study of the prevalence of maxillofacial pathology in pre-conscription and conscripts, their structural features and development dynamics in the period from 2004 to 2008.
- Analysis of the regional aspect of the incidence of maxillofacial pathology in pre-conscripts and conscripts in the districts of Baku in comparison with the regions of Azerbaijan

- The results of comparative characteristics of the effectiveness of treatment and preventive work of private and public dental clinics, taking into account the age of application of persons of pre-conscription age.
- Measures to eliminate the discrepancy between the degree of dental anomaly and the degree of dysfunction of mastication function during examination of conscripts.
- The procedure for the medical examination of young men of pre-conscription age and their medical clearance as well as the procedure for the medical examination of conscripts.

Scientific novelty:

- The level of prevalence of pathology of the maxillofacial region among pre-conscripts and conscripts was revealed.
- The structural features of congenital and acquired pathology of the maxillofacial region in pre-conscripts and conscripts have been determined.
- The dynamics of the incidence vates of maxillofacial pathology among pre-conscripts and conscripts has been established.
- The discrepancy between the degree of mastication dysfunction and the degree of anomalies in conscripts was studied.

Practical significance:

- Measures for organizing dispensary registration and observation of pre-conscription and conscripts have been optimized and proposed.
- Objective criteria for examining conscripts have been determined, which has improved the quality of their medical examination and reduced the material costs associated with the need for re-examination.
- The results of the research can be used both in the medical examination of military personnel and in examinations in the system of other law enforcement agencies.

Approbation. The main thesisses of the dissertation were reported and discussed at the Russian Scientific and Practical Conference with international participation "Current Problems of Dentistry" (Makhachkala February 26, 2021); International scientific and practical conference "Current issues of education and science"

(Tambov, February 27, 2021); XXVII International Scientific and Practical Conference "Science of Russia: Goals and Objectives" (Ekaterinburg, June 10, 2021); II International Scientific and Practical Congress of the Society of Oral and Maxillofacial Surgeons of Azerbaijan dedicated to the 100th anniversary of H.Aliyev (October 12-14, 2023).

The dissertation was approved at the general meeting of employees of the Department of Oral and Maxillofacial Surgery of the Azerbaijan Medical University (July 5, 2022, protocol No.9); Scientific Seminar of the Dissertation Council ED 2.50, operating on the foundation of the Azerbaijan Medical University (07 November 2023, protocol No. 5).

Implementation of research results into practice. The results of this study were introduced into the practice of the Department of Maxillofacial Surgery of the Clinical Medical Center, the Republican Children's Dental Center, and the Educational Dental Clinic of the AMU.

The name of the organization where the dissertation work was performed. The study was conducted in the Department of Maxillofacial of the Clinical Medical Center, in the Republican Children's Dental Center, in the private dental clinic "Dental Center LLC".

Publications. 12 scientific works have been published related to the topic of the dissertation research, including 6 articles and 6 theses (including 2 articles and 3 theses in foreign publications).

Volume and structure of the dissertation. The study is presented on 169 (200925 characters) pages of computer text and consists of the following sections: introduction (10261 characters), literature review (58399 characters), chapter of materials and research methods (27883 characters), 2 chapters of author's research (21811+41126 characters), summary (38744 characters), conclusions (1956 characters), practical recommendations (745 characters), bibliography on 20 pages. The list of used literature includes 179 sources, of which 20 works are in Azerbaijani, 1 work in Turkish, 72 in Russian and 86 in English. The dissertation is illustrated with 6 pictures, 9 grafics and contains 16 tables.

MATERIALS AND METHODS OF RESEARCH

The clinical material of the study included 446 males aged 16 to 35 years, all of them were sent to the hospital by medical commissions of the State Service units for mobilization and conscription after a preliminary examination by a dentist. Of these, 432 people had pathologies of the maxillofacial region, 14 conscripts without pathologies. A sample was also taken from a private dental clinic in Baku - males aged 8-17 years, 72 outpatient cards, and a public dental clinic in Baku - males aged 9-17 years, 95 outpatient cards.

The results of the inpatient examination were recorded in a special medical report of the patient's dental examination (card), developed at the Department of Oral and Maxillofacial Surgery of the Azerbaijan Medical University (table 1).

Table 1

Local dental status of conscript

<table>
<tr><td>Asymmetry of the face and condition of the skin</td><td colspan="4"></td></tr>
<tr><td>Degree of mouth opening</td><td colspan="4"></td></tr>
<tr><td>Proportions of facial zones</td><td colspan="4"></td></tr>
<tr><td rowspan="3">Dental formula</td><td colspan="2"></td><td colspan="2">Intercuspitation of teeth of antagonists</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td>Mastication effect</td><td colspan="4"></td></tr>
<tr><td>Occlusion</td><td colspan="4"></td></tr>
<tr><td>The direction and size of the gap</td><td colspan="4"></td></tr>
<tr><td>Damage to the organs of the oral cavity</td><td colspan="4"></td></tr>
<tr><td>The status of temporomandibular joint</td><td colspan="4"></td></tr>
<tr><td>Speech function</td><td colspan="4"></td></tr>
<tr><td>Conducted surgical operation</td><td colspan="4"></td></tr>
</table>

Based on the results of the clinical examination, the patient's anamnestic data was entered, which characterized the time of occurrence of the anomaly, the patient's complaints, and the presence of concomitant diseases. The characteristic criteria of a pain symptom, its intensity, localization and nature of pain (tearing, pulsating, stabbing, aching) were also analysed. During the examination, the

etiology of pain (spontaneous or as a result of exposure to a specific stimulus), the main causes of ineveasing of pain, and the analysed of the pain attack (periodically occurring, paroxysmal) were analysed. An important indicator taken into account during the examination was the duration of painful attacks, the duration of intervals without pain, the direction of its irradiation, the presence of main zones of irradiation, possible factors that alleviate or eliminate pain, as well as the presence or absence of such an indicator as night pain. Complaints that determined a violation of the general condition of the organism were taken into account and recorded: weakness, specific ailments, unusual fatigue that appears regardless of the degree of physical activity, increased body temperature, loss of body weight (to what extent and over what period of time).

After completing the collection of initial scientific material, an analysis of the identified pathology was carried out. At the same time, we paid special attention to the place of registration of conscripts (countryside or rural areas). Statistical data on the number of conscripts examined during the five-year period of work (2004-2008) of the medical commission in a specialized state center - in the Department of maxillofacial of the Clinical Medical Center are shown in graph 1.

Graph 1. The number of surveyed conscripts in 2004-2008.

As can be seen from diagram 1, a total of 432 conscripts were examined. Of the total number of conscripts, 324 were from Baku, 108 from other cities and regions of Azerbaijan. While analyzing the studied indicators by year, it turned out that the largest number of patients examined overall was in 2005, which amounted to 100 conscripts. In 2005, 84 of them were from Baku, 16 from other regions of Azerbaijan. The smallest number of conscripts was in 2004, it was 62 individuals. Of these, 44 individuals are from Baku and 18 from the regions. In 2006 and 2008, the number of conscripts was approximately the same, 87 and 88 person respectively. The smallest number of registered patients from Baku was in 2004, amounting to 44 individuals, the largest number of conscripts was in 2005, 84 people were registered. Among those registered from the regions, the smallest number was in 2005, they amounted to 16 conscripts, the largest number of conscripts from the regions was in 2006, they amounted to 28 conscripts.

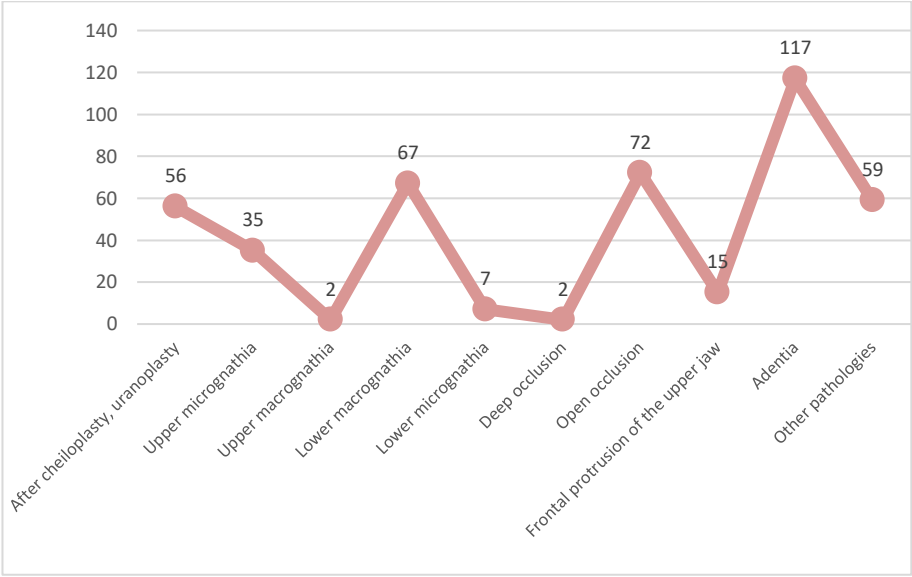
At the Clinical Medical Center, all diagnostic measures, especially a planned objective examination of a conscript with maxillofacial pathology, began with his visual examination, anamnesis was collected, a palpation and visual assessment of the status of the conscript's masticatory muscles was carried out, a clinical (dental) examination was carried out, including an x-ray (teleradiological) examination, as well as laboratory tests. The analysis of the obtained results was carried out using the method of variation statistics by the mean of using Microsoft Excel 2010. The reliability of the identified differences was assessed using the Student t-test.

RESEARCH RESULTS AND THEIR DISCUSSION

An analysis of clinical examinations indicates that the number of persons of military age with maxillofacial pathology who were registered in Baku was 66,7% higher in comparison with those persons registered in the regions of the Republic of Azerbaijan. The quarter of

such conscripts was equal to 324 conscripts, which accounted for 75.0% of the total number of exmend.

Regional military medical commissions of the State Service for Mobilization and Conscription sent 108 conscripts for examination to Department of Oral and Maxillofacial Surgery of the Clinical Medical Center in Baku, which accounted for 25,0% of the total number of identified cases. From the regions of the republic, the largest number of conscripts were sent in 2006 and 2008 (25,9% and 22,2%), and by district commissions of Baku - in 2005 and 2007 (25,9% and 22,5%). The structure of nosological groups is indicated in graph 2.



Graph 2. Number of identified maxillofacial pathologies among conscripts

We have established a significant negative trend in the increase in the number of cases of detection of these anomalies in the period from 2004 to 2008. Thus, in 2008, the number of conscripts who, while an examination at the Clinical Medical Center in Baku, were found to have cleft lip and palate, increased by 50%.

Other congenital pathologies (congenital thyreoglossal cysts of the neck, complicated by fistulas, hemifacial microsomia of the face, lymphangioma of the right buccal region, causing functional disorders) were found in 6 conscripts, which amounted to 1,4% of the total number of cases.

Premature tooth loss has a negative impact on the functional state of the dental system, in particular on mastication function. According to the data obtained, in only 1,6% of recruits the level of mastication efficiency varied from 50% to 88% and on average was equal to 50%, while in 91% of cases the mastication efficiency indicators were determined within the range of 5-46%. As for the rest of the conscripts, the data obtained from them decreased significantly and reached a value of 0%; this situation was observed in the remaining 7,4% of people of conscription age.

Among other pathological conditions, which accounted for 13,7% of cases, the most frequently recorded traumatic and postoperative defects of the jaws, osteomyelitis, and less commonly chronic arthritis and arthrosis of the temporomandibular joint.

A significant negative trend in the increase in the number of cases of detection of these anomalies was also established. Thus, in 2008, the number of conscripts with these anomalies increased by 50% compared to 2004.

Of the 432 total number of those examined, only in 1 case, that is, in 0.2% of conscripts, a physiological biprognathic occlusion was detected. As for the rest of the population of similar age, various other types of occlusion were more often diagnosed. The most common type of occlusion was open bite (116 conscripts, which amounted to 26,9%). The mesial bite type was also common – 53 cases, which amounted to 12.3%. In 16 cases, the distal type of occlusion was recorded, in 12 – orthognathic, in 5 – crossbite, in 4 recruits – deep, in 3 – linear. At the same time, 222 conscripts had dental anomalies, that is, malocclusion, mainly due to the removal of a certain number of teeth and the presence of both complete and partial secondary adentia, which amounted to 51,4%. (table 2).

Table 2
Distribution of examined conscripts with maxillofacial pathology by occlusion

Occlusion	Abs.	%
Physiological biprognathic	1	0,2
Linear	3	0,7
Orthognathic occlusion	12	2,8
Deep bite	4	0,9
Crossbite	5	1,2
Mesial bite	53	12,3
Distal bite	16	3,7
Anterior bite	116	26,9
Others (Uncertain)	222	51,4
Total	432	100,0

Thus, an analysis of the activities of the central and regional military medical commissions of the Conscription Service indicates a significant number of registered facts of dental pathology. The condition of the dentition in persons of military age is assessed as unsatisfactory and is characterized by partial or complete secondary adentia, low efficiency of mastication function, who need dental care. The data obtained may indicate the expediency of improving the system of assistance provided by military medical dental organizations, the need for timely diagnostic and therapeutic and preventive work carried out by dentists of regional children's dental clinics.

With the high level of development of the army, the complexity of tasks solved by personnel, and high requirements for the dental status of conscripts, dentists of military medical recruitment commissions should take into account the increase in the number of conscripts with congenital anomalies and acquired defects of the maxilllofacial region. It is obvious that in order to improve the level of dental health of military personnel, it is necessary to introduce or expand the staff of dentists for the prevention of diseases and planning dental care at the place of military service.

Of course, in order to improve the dental status of conscripts with pathology of the maxillofacial region, it is necessary to improve the diagnostic criteria for detected anomalies and pathologies. In addition, it is

necessary to optimize and widely introduce into dental practice therapeutic and preventive measures that will improve the quality of life of conscripts and military personnel.

The construction and development of a complex of preventive measures and highly qualified specialized dental care in military medical structures will not only allow for timely recruitment of conscripts, but also significantly improve the level of dental health of military personnel.

An important result of the study is a significant heterogeneity in the number of cases of recorded anomalies of the maxillary region in conscripts registered in Baku and in the regions of the Republic of Azerbaijan, which indicates a different level of organization of the dental care system and the need to study geographical differences in the state of health of tissues and organs of the oral cavity of conscripts.

During the period of research, a negative pattern of growth in cases with pathology after cheilo and uranostaphyloplasty operations was established. In 2004, 7 conscripts were examined, in 2006 – already 16, and in 2008 -14, which indicates a 100% increase in the number of cases with the studied anomaly over 5 years of the study. According to the results of the comparative analysis, in the period 2004-2005, the number of recruits with anomalies of the dentition after cheilo- and uranoplasty was 84,6% higher in the districts of Baku compared with the number of such recruits from the regions of Azerbaijan. At the same time, no significant difference was found in the period 2006-2008.

The largest number of conscripts with this type of abnormality in the period 2004-2008 among the districts of Baku was detected among conscripts registered in the Binagadi and Khatai districts. Also, the percentage of examined recruits with anomalies of the dentition after cheilo- and uranoplasty from the number of individual groups enrolled for examination was higher among recruits from the regions in comparison with the group of recruits from Baku.

However, given the different sample sizes of the surveyed recruits, the indicator of the occurrence of anomalies in terms of 100 individuals may be more informative. Thus, the incidence of anomalies of the dentition after cheilo- and uranoplasty was 16,58 cases higher among recruits from the regions.

Of the 432 conscripts surveyed, 117 individuals (27,1%) were found to have secondary adentia of various kinds. The analysis of the regional aspect testified to the preferential registration of persons of this category in Baku (94 cases versus 23 cases among conscripts from the regions), which was more than 4 times higher ($p<0,001$).

In the period 2004-2008, it can be argued about the growing trend in the number of individuals with secondary adentia with registration in the capital. The smallest relative number was examined in 2006, which amounted to 66,7% of the total number of conscripts with adentia, and in 2008 – 94,4%. The average number of missing teeth is 15.1, and the level of mastication function is 19,5%. 3 individuals (2 from Baku, 1 from the regions) were diagnosed with complete secondary adentia (mastication function - 0), adentia of more than half of the dentition - in 52 cases, which amounted to 44,4% of the number of conscripts with this anomaly.

The largest number of conscripts with secondary edentia in the period 2004-2008. among the districts of Baku, was found among conscripts registered in the regions of Sabunchi, Binagadi and Khatai. Also, the percentage of a separate group of conscripts was higher in the case of conscripts registered in Baku compared to conscripts from the regions. At the same time, the incidence of adentia was 10,77 cases higher among conscripts from the regions.

The total number of subjects examined with different types of anomalies of the maxillofacial region, including maxillary and mandibular macro- and micrognathia, was 111 persons, which is equal to 25,7% of the total number of registered anomalies.

In the structure of these anomalies, mandibular macrognathia prevails (n=67, 60,4% of the total number of conscripts with anomalies of jaw development), the second position in frequency is occupied by upper micrognathia (n=35, 31,5%). Mandibular micrognathia was noted in 7 conscripts (6,3%), and maxillary macrognathia only in 1 case (1,8%). The prevailing number of variant anomalies identified by the medical commissions of the Conscription Service were identified in persons who were registered in Baku (77,8% more than conscripts from the regions). Also, conscripts from Baku had a higher percentage of detected anomalies

out of the total number of those examined. However, the incidence of jaw anomalies was 8,48 cases higher among conscripts from the regions.

The largest number of conscripts with pathology of ontogenetic development of the jaw in the period 2004-2008. among the districts of Baku was found in young men registered in the Yasamal and Sabunchi districts.

74 conscripts (17,1%) had malocclusions. Of those examined, 13 conscripts (17,6%) had complaints about difficulty mastication. In all cases, the appearance of the anomaly began in childhood. This negatively affected the aesthetic features of the face, since malocclusion leads to a disproportionate relationship between facial zones. The mouth opening was free and not impaired, but mastication efficiency was low. Only in 3 cases the mastication effect was equal to 2/3 of normal, in 10 cases at the level of 50-60%, and in the rest - less than 50% (the lower limit of the mastication effect was found at the level of 5%). A significant vertical cleft was noted - from 4 to 13 mm (average 7-10 mm). Only in 1 case was there no gap in the frontal region. The general trend is an increase in the number of identified cases of malocclusion. The exception was 2006 – 0 cases.

The largest number of conscripts with dental anomalies in the period 2004-2008 among the districts of Baku was found among conscripts registered in the Binagadi, Yasamal and Sabunchi districts. In addition, the percentage of a separate group of conscripts was higher in the case of conscripts registered in Baku compared to conscripts from the regions of AR. However, the incidence of jaw development anomalies was 4,38 cases higher among conscripts from the regions.

Thus, the results of our study allowed us to put forward a hypothesis about the need to conduct a study of the effectiveness of the dental service with children, adolescents and young adults, the timeliness of detection of functional disorders and chronic diseases of the oral cavity.

It was found that in a private dental clinic, the percentage of cases of patients with anomalies of the dental system aged 8-9 years was 8,3%, 10-11 years – 11,1%, 12-13 years – 31,9%, 14-15 years – 37,5%, and 16-17 years – 11,1% of the total sample.

The most common dental anomalies among this group of patients of a private dental clinic were malocclusion, while, for example, mesial

occlusion was found among 47,2% of patients, as for age indicators, this type of occlusion was more often detected at the ages of 13, 14 and 15 years, the following data were recorded as a percentage: 62,5%, 80,0% and 41,7% of the surveyed, respectively. Distal occlusion was common among 38,9% of patients, which was more often observed at the age of 16 – 100% and at the age of 17 – 60% of patients, and less often at the age of 12, that is, in 53,3% of cases. As for cross-bite and deep bite, such dental anomalies were diagnosed only in 11,1% and 2,8% of the entire sample of examined individuals, respectively.

According to the data obtained, high and average effectiveness of the treatment was achieved, which was reflected in the identified indicators, which amounted to 95,8%, while the maximum 100% result was observed among patients aged 8-11 years, 13, 16 years. It is especially important to note the low effectiveness of the course of basic therapy in relatively older people, for example, in patients aged 17, the effectiveness of treatment decreased to 80%.

To compare with the results of treatment in a private clinic, we analyzed 95 medical records of boys aged 9 to 17 years in one of the state dental clinic in Baku.

While assessing the effectiveness of public and private dental clinics, it is essential to compare the effectiveness of treatment for the same dental anomaly. Thus, among both groups of subjects, distal and mesial occlusion were diagnosed, but it is important to take into account the specificity of all the groups we studied and the absence of cases of detection of this pathology in certain age categories. According to the data obtained and according to the results of their analysis, the effectiveness of therapy for this type of occlusion in a private clinic was determined to be 96,4%, while the indicators in a public clinic were significantly lower and amounted to 57,1%, which was lower on average by 39,3 %. It should be noted that the maximum indicators for the effectiveness of treatment of distal occlusion in a private clinic were determined in the age group from 9 to 16 years, and in the older age group, that is, at the age of 17, the indicator was 66.6%. At the same time, only people aged 15-17 years were treated with this anomaly at the state clinic, while 100% success was achieved only at the age of 15, and 66.6% and 50% are data for people aged 16 and 17.

The success rate in a private clinic for correction of mesial occlusion was 91,2%, whereas in a public clinic the indicator was 66,7%, which was 24,6% lower. It is important to note the fact that in a private clinic, 100% effectiveness of treatment of mesial occlusion was found in patients aged 10-12 and 17 years, and at an older age, that is, at 13 years old, this was observed in 80% of cases, at the age of 14 years - in 83.3% of patients, and in persons aged 15 years - 80%. The effectiveness of treatment of this dental anomaly in a public clinic in digital terms was only 50%, and at the age of 16 years it was a little more - 75%. When examining the rest of the patients belonging to other age groups, persons with mesial occlusion were not registered.

In general, the effectiveness of treatment for other types of anomalies was assessed. At the same time, in a private dental clinic, the effectiveness of treatment of crossbite occlusion was 87.5%, including 100% successful treatment in the age category of 8 and 15 years and 66,6% in the age category of 12 years.

In a state dental clinic, treatment of open bite showed an effectiveness of 62,5%. The greatest effectiveness was found among the age categories of 13 years (100%), 16 years (80%) and 17 years (66,6%). At the same time, among patients aged 11 years it was 33,3%, among patients aged 14-55,5% and among patients aged 15-50%.

Treatment of mandibular macrognathia showed an effectiveness of 71%. The greatest results were achieved in the age categories of 15 and 17 years (80% and 71,4%), lowest results were recorded in the age categories of 11 and 14 years (25% and 50%). The effectiveness of treatment for maxillary macrognathia was 100%, however, the small sample size of patients with this anomaly should be taken into account (n=2). This statement is also true for assessing the effectiveness of treatment in the group with mandibular micrognathia (50%, n=2). The analysis showed that the treatment of maxillary micrognathia was successful in 56,5%. The highest rates were achieved at the ages of 15 and 17 years (57,1% and 75%), while at the ages of 12 and 14 years, the effectiveness of treatment for the above anomaly was 16,7% and 50%.

According to the statistical data obtained and the results of a comparative analysis of anamnestic indicators from the medical histories

of both children and older adolescents who underwent basic therapy in private and state dental clinics, a significant and greater number of referrals of patients who reached the age of 16-17 were recorded in the state dental clinic, that is, this it was 27,8% more; at the same time, in comparison with the data of a private dental clinic, a markedly small proportion of such patients, that is, 19.3% less, were persons whose age was between 12-13 years old. The results of the treatment showed a 23.8% lower average effectiveness of treatment in a public clinic (72,0%) compared with a private one (95,8%). The specificity of the studied samples made it possible to compare the effectiveness of labor treatment activities of various clinics, that is, specialized institutions of various forms of ownership, for the correction of two types of dental anomalies, distal and mesial. Thus, effective results were found in the treatment of distal occlusion, which was carried out in a private clinic, here the indicators were 96,4%, which could not be said about the work of a public clinic, in which the treatment effectiveness was only 57,1%, which turned out to be lower by almost 39,3%. Effective results in the treatment of mesial occlusion, which were recorded in a private clinic, were estimated at 91,2%, which was 24,6% higher than in a public clinic (66,7 %). In addition, we found that with increasing age of treatment, the effectiveness of treatment of dentoalveolar anomalies decreases, especially in a public dental clinic.

The data obtained contributed to our idea that timely dental care provided to persons of conscription age would significantly reduce the number of commissioned persons during a medical examination in the regional departments of the State Service for Mobilization and Conscription.

In order to assess the effectiveness of the diagnostics, we analyzed the medical histories of conscripts with a clinical diagnosis of protrusion of the frontal part of the upper jaw, sent to the maxillofacial department of the Clinical Medical Center in Baku by medical commissions of the State Service for Mobilization and Conscription in the period from 2004 to 2008.

The analysis showed that the total number of such conscripts was 15 individuals. The largest number of such conscripts was in 2007 (6 individuals). The gap size in 5 recruits (33,3% of the total number) was less

than 5 mm, in 7 (46,7% of the total number) the gap was in the range of 7-9 mm, and in 3 (20% of the total number) it reached values of 10-13 mm.

A study of mastication efficiency showed that 6 conscripts had values above 70%, and the remaining 8 had lower values. At the same time, the mastication efficiency of 3 people was below 30%.

According to the structure of anomalies, 33,3% of conscripts had grade I anomalies, 66,7% had grade II anomalies. A mild degree of impaired mastication function was recorded in 53,3% of recruits, and a moderate degree – in the remaining 46,7%. All conscripts with degree I anomaly, as well as 3 conscripts with degree II anomaly, had a mild degree of impairment of mastication function.

It is worth noting that all conscripts with a gap size of no more than 5 mm were characterized by grade I anomalies and a mild degree of impairment of mastication function, which made them suitable for service.

At the same time, only three conscripts with a gap of 6-9 m and a grade II anomaly had a mild degree of impaired mastication function. This subgroup was also characterized by a higher level of mastication efficiency (66-92%).

Based on the data obtained, diagnostic criteria for protrusion were formulated in terms of suitability for military service. Thus, all conscripts with a gap size of no more than 5 mm were diagnosed with grade I anomaly with an accompanying mild degree of impairment of mastication function, which made them suitable for service. Conscripts with a gap of more than 5 mm were characterized by both degree II anomaly with a mild degree of impairment of mastication function (n=3, causing difficulties in examination), and II degree anomaly with a moderate degree of dysfunction (n=7), which made them unsuitable for conscription. This group is recommended for correction with braces, the goal of which is to reduce the gap to 5 mm and improve mastication function to a mild degree of impairment. This approach can be implemented in a short time, which will increase the number of conscripts fit for service.

Thus, during the period 2004-2008, medical commissions of the Conscription Service sent 432 conscripts with pathology of the maxillofacial region and examined them in the Department of Maxillofacial Surgery of the Clinical Medical Center. The most common

case of such disorders was adentia – 27,1%, the second position was occupied by anomalies of jaw development – 25,7%, the third position - malocclusion – 17,1%, the fourth position - the consequences of cheilo- and uranoplasty – 13,0%. A separate category consists of other pathologies, which, as a rule, have different etiologies and pathogenesis.

An informative indicator is the incidence of pathology of the maxillofacial region per 100 individuals. According to the study, this figure was higher among the group of conscripts registered in the regions, ranging from 1,71 cases per 100 individuals to 19,72 cases per 100 individuals.

Thus, the results of our work justify the need to conduct a study of the effectiveness of the dental service with children and adolescents, to identify functional disorders and chronic diseases of the oral cavity.

We have optimized the procedure for the medical examination of pre-conscripts when taking on primary military registration and conducting a medical examination. Dispensary supervision by dental specialists should cover both pre-conscripts with pathology and healthy pre-conscripts aged 15 years – the time of primary registration up to 17 years - a year before conscription.

The concept of medical examination covers the timely identification of patients, preferably at the early stages of diseases, early treatment of diseases, study and improvement of living and working conditions, strengthening and improving health through physical development of young people.

Dispensary supervision of persons of military age and conscripts directly can be carried out as follows - when they are taken on primary military registration with a medical examination, or sent for dispensary supervision or necessary treatment in a medical institution.

The main element of treatment and preventive care provided to pre-conscripts or conscripts - schoolchildren, students of secondary and higher educational institutions is planned sanitation of the oral cavity.

Carrying out planned sanitation of the oral cavity is generally carried out in two ways - centrally and decentralized. The scope of assistance provided to pre-conscripts and conscripts includes outpatient treatment, and, if necessary, inpatient treatment, as well as providing them with emergency dentures for cash payment.

The implementation of therapeutic and preventive measures in the system of dispensary observation of young people of military age with this approach takes place outside the conscription point - registration for primary military registration. The point of conscription for primary military registration, under this system, is entrusted with establishing the dental status of pre-conscripts and, to a small extent, monitoring the effectiveness of medical and preventive measures carried out in the period between examinations by dental specialists.

Along with the above-mentioned method of conducting comprehensive dispensary monitoring, there is another method, the system of which includes diverse dental care provided both in medical and preventive medical institutions and during medical examination at the conscription point, taking on primary military registration.

The order of dispensary observation with this method is as follows:

- conscription point (taking on primary military registration);
- conducting a medical examination;
- maximum possible dental care;
- taking on dispensary supervision and carrying out follow-up treatment;
- medical and preventive institutions;
- continuation of treatment of pre–conscripts, previously started at conscription points - taking on primary military registration;
- implementation of preventive measures;
- identification of diseases that appeared in the period between two examinations and their treatment.

From the above, it becomes clear that the difference between the presented methods of conducting dispensary supervision of pre–conscripts lies in the fact that in the second option, at the point of conscription - taking on primary military registration, along with examination and taking on dispensary supervision, therapeutic and preventive measures are also carried out.

The medical and preventive care provided at the conscription point - taking on primary military registration consists of the following measures:

- dental fillings for superficial and medium caries;
- dental fillings for deep caries, both temporary and permanent fillings;
- dental treatment with pulpitis or periodontitis in one visit, if indicated;

- dental treatment with fluoride-containing varnish, if necessary, taking into account the insufficiency of fluoride intake into the organism, depending on the area of residence.

All further medical measures for pre-conscripts regarding diseases detected during the examination are carried out in medical institutions.

Control over the medical examination of young men and medical and recreational work among conscripts should be carried out by health authorities, as well as by chief dentists with the participation of military medical commissions of the State Service for Mobilization and conscription.

Control over the quality of medical examinations during registration and conscription is carried out by city and district conscription commissions.

The medical personnel of the conscription commission are subordinate in their work to the heads of the departments of the State Service for mobilization and conscription and provide medical examination of persons subject to registration and conscription into the Armed Forces.

CONCLUSIONS

1. A study of the prevalence of maxillofacial pathology showed that the largest number of pre-conscripts and conscripts with pathology was observed in the city of Baku - 75%, and in the regions - 25% [4,5].
2. Identification of the structural features of the pathology of the maxillofacial area in pre-conscripts and conscripts showed that the most common nosological forms were adentia – 27,1%, open bite – 16,7% and mandibular macrognathia – 15,5% [1,11] .
3. Analysis of the regional aspect testified to the following frequency of occurrence of pathology of the maxillofacial area in the regions of Azerbaijan in comparison with the regions of the city of Baku: anomalies of the dentition after cheilo- and uranoplasty are 16,58 more cases, secondary adentia of various kinds is 10,77 more cases, there were 8,48 more cases of jaw development anomalies [1,4].

4. A comparative analysis of the efficiency of private and state dental clinics, taking into account the age of treatment of adolescents, showed a higher average efficiency (by 23,8%) in a private clinic – 95,8% of treatment compared to the state – 72,0%. The effectiveness of treatment of distal and mesial occlusions in a private clinic was 96,4% and 91,2%, and in a public clinic 57,1% and 66,7%, respectively. It was also found that with increasing age of patients, the effectiveness of treatment of dentoalveolar anomalies decreases [7].
5. The study of diagnostic criteria for protrusion of the frontal part of the upper jaw in terms of fitness for military service showed that: recruits with a gap size of no more than 5 mm, I degree of anomaly and mild degree of violation of mastication function are suitable for service; recruits with a gap size of more than 5 mm, II degree of anomaly and moderate degree of dysfunction mastication is unsuitable for service; grade II anomaly with a gap of more than 5 mm, accompanied by a violation of the function of mild mastication, causes difficulties in examination [8,10].
6. Based on the data obtained, our proposed procedure for the medical examination of young men of pre-conscription age and their medical examination, as well as the procedure for the medical examination of young men of military age, allows them to bring their dental status in line with medical standards of fitness for military service [3,9].

PRACTICAL RECOMMENDATIONS

1. The solution to the problem of eliminating the discrepancy between the degrees of anomaly and violation of mastication function, as well as medical care for protrusion of the frontal part of the upper jaw in the aspect of fitness for military service is the use of bracket systems that allow the necessary correction of occlusion in the shortest possible time.
2. We consider the use of the proposed procedure for the dispensary registration of young men of pre-conscription age (at primary registration), as well as young men of military age (at conscription),

rational and giving an opportunity to improve the criteria for conscription.

3. It is advisable to use the proposed examination card when examining conscripts, which will minimize the time of examination and diagnosis. The use of this card is possible in the work of medical commissions in all law enforcement agencies.

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