

mentioned that tests with time limit have been solved with big difficulties by sinisters comparatively to the dexters (that can be used in a study process, to our point of view).

The scale for the results interpretation while the terms processing investigation was the following: 7-10 degrees – very easy to be performed; 5-7 degrees - easy to be performed; 3-4 – difficult to be realized; 1-2 – practically impossible to be realized. We assessed four operations: terms determining, terms comparison and difference, logic correlations finding out, subjects free classification. The terms determining was easier for ambidexters, then for real and hidden sinisters and more difficult for dexters and unreal sinisters. The terms comparison and difference was the easiest for dexters, then for ambidexters and unreal sinisters and difficult for sinisters (both real and hidden). Logic correlations finding out was easy for dexters and ambidexters, at average level – for unreal sinisters while difficult to be realized or practically impossible to be made – for real and hidden sinisters. The subjects free classification making was an easy operation for real and hidden sinisters, ambidexters, difficult for dexters and unreal sinisters (they study proposed classifications easier than created the new ones by free way).

The results received, probably, can be explained by following. Left hemisphere dominant in dexters and unreal sinisters is logic one, performs consequent operations easier, thinking type for left hemisphere is a successive one. Right hemisphere dominant in real and hidden sinisters is alogic, creative one, it performs semantic operations better and thinking type for it is simulant (it est the sinister "captures" the information as a whole and it is rather difficult for him to tell about details that is easy, in turn, to the dexters and moreover to ambidexters).

## **MASTICATORY MUSCLES PHYSIOLOGY AND FUNCTIONAL ANATOMY**

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Masticatory function is defined by the complex interaction of masticatory musculature, temporal-mandibular joint, teeth and nervous system during biting, chewing, swallowing and speech. Masticatory muscles comprise temporal one, masseter, medial pterygoid and lateral pterygoid paired muscles.

Masseter and medial pterygoid muscle serve first of all as an origin of powerful tension while the temporal and lateral pterygoid muscle are responsible for mandible stabilization. Masticatory musculature functions in a complex with epiphyoidal and subhyoidal muscles as well as with the ones of tongue, lips and cheeks. Neck muscles also influence indirectly on the stabilization, participate into the head position changing during the mastication (P.O.Eriksson, 2000).

Muscular mass is maintained due to physical activity as well as due to natural steroid hormones and growth hormone. Insufficient activity leads to muscular hypotrophy while the training results in hypertrophy; muscular fibers change their length at this. Muscular tissue enzymes react to the releasing energy linked with aerobic and anaerobic loading. Capillaries get adapted to the activity level as well. Characteristics and functional peculiarities of masticatory muscles differ from the ones of the extremities muscles because masticatory musculature has better capillary support and other organization of fibers. The I-st-typed fibers responsible for durable contractions (slow) and resilient to the fatigue are dominant in masticatory muscles. Durable activity and muscles powerful contractions, without resting periods, result in intramuscular tension increasing and then in local ischymy, increased membranous permeability, edema and even in the cellular damage. Besides, there re easy edema and hyperemy after the loading to the healthy muscles even at chewing gum usage. They consider that masticatory muscles insufficient power can be the predisposition factor for their "wearing". Muscular tissue decomposition can lead both to fibrosis and to muscular fibers regeneration from the cellsatellites (inactive myoblasts) which are also participate into muscles growth. The biggest masticatory muscles are the ones rising mandible, especially the masseter and the temporal one. Masticatory force depends on their activity level; the muscle width, the fibers size and location are also valuable. Male masticatory muscles are stronger than the female ones but the force also depends on the age and occlusive contacts. There is a link between masticatory force and face morphology: the more powerful the muscles are, the less is face vertical height and mandibular angle. Thus, weak masticatory muscles are the prolonged faces characteristics while the stronger ones – for the square ones. If masticatory muscles activity is lowered because of the diminished necessity in mastication, teeth loss or constant pain, their hypotrophy can develop. And, on the contrary, masticatory muscles excessive activity for instant at night bruxism results in their hypertrophy.

Mouth closure id est mandible lifting appears due to two-sided symmetric activity of masseters, temporal and medial pterygoid muscles though muscles work non-symmetrically, with their bigger activity at the working side during the mastication. The gravitation action to mandible is equaled with the temporal muscles positive tone. They say that the latest ones play important role in the mandible positioning in the space. Also masseters and medial pterygoid muscles are activated at the teeth closage. Mouth opening or mandible lowering is performed due to suprahyoid muscles (digastric muscle anterior belly, omohyoid and mylohyoid one) with the lateral pterygoid muscles participation. Suprahyoid muscles are attached to the mandible and hyoid bone. When hyoid bone is fixed due to subhyoid muscles than suprahyoid muscles can participate in mandible lowering. Mandible symmetric protrusion (movement forward) is achieved by lateral pterygoid muscles two-sided action. Mandible retrusion (movement back) is performed by temporal muscles posterior part, suprahyoid muscles and masseter deep fibers. Laterotrusion (mandible shift on the right or on the left) takes place at contralateral pterygoid muscle contraction as well as ipsilateral lateral pterygoid muscle contraction. Though laterotrusion is usually combined to the protrusion on opposite side while antero-lateral movement forming.

## PHYSICAL ACTIVITY AND OTHER CAD RISK FACTOR

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CAD incidence is lower among Iowa farmers who were compared with less physically active nonfarmers. The farmers smoked fewer cigarettes and consumed lesser amounts of alcoholic beverages than did nonfarmers. The Harvard Alumni Study evidenced that men not engaged in a lifetime of participation in LTPA had a 35 percent greater risk of hypertension than did their physically active counterparts.

Evidence that physical activity may effect multiple changes in other CAD risk factors is shown indirectly by the North Karelia project, where an increased incidence of CAD events during a six-year follow-up period was evidenced in sedentary men when compared to men who had higher levels of LTPA. However, this relationship was weakened after adjustment for cigarette smoking, serum cholesterol, and blood-pressure levels, and the extent of participation in a network of social contact, such as club memberships and friends.

A variety of mechanisms, are suggested to explain how physical activity may reduce CAD risk by affecting change in known CAD risk factors. Besides inducing favorable changes in plasma lipids and lipoproteins, physical activity could reduce blood pressure, improve tissue's oxygen utilization by increasing both cardiac efficiency and tissue oxygen extraction, or improve blood flow by altering blood rheology.

## INFECTIOUS DISEASES MORBIDITY INDEXES IN A MILITARY GARRISON “DEсна” FOR THE 11-YEARED PERIOD

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The topic of infection morbidity in part on influenza, acute respiratory viral infections, pneumonias as well represents a subject of the attention for the theoreticians and clinicians in Ukraine and even far from it especially during last months. It is non-occasional, that these infections are distributed especially in the places of people significant accumulation. Military units belong to them of course.

There was performed a review of morbidity on some infectious diseases in a Study Center “Desna” near Kiev from 1998 till 2009 as well as monthly-made analysis of morbidity on pneumonia and acute respiratory diseases from May till January the 2010<sup>th</sup>.

Morbidity on pneumonia was 8-10 promille in the spring 2009, from 1 till 18 promille in summer with a significant rising at the summer beginning, in autumn – from 2 till 14 promille with its peak at the end of September, in winter – it rose from 3 promille till 22 in the middle of December and then lowered up to 4 promille at the end of January. So, morbidity peak on pneumonia was in