

Conclusions: 1. The clinical DPF, PMA, OHI-V and DCI indexes characterizing the oral health status differ statistically significantly in HD and DB patients from persons without the specified pathology. In CP patients and persons without this pathology there is no statistically significant differences of the given clinical indexes established.

2. Separate laboratorial characteristics of oral liquid (stickiness, phosphor, total and active calcium, sodium, potassium, hydroxyapatite solubility product) differ statistically significantly in HD and DB patients and persons without the specified somatic pathology.

3. A method of HD and DB screening at a stomatological attendance has been developed. On the basis of clinical indexes' values defining with their further ranging the persons with a significant or high risk of the presence of the studied pathology stand out. For the persons referred to a risk group by this method the total calcium and sodium (and sodium Na^{++}) content in the oral cavity are determined in the laboratory. The content of total calcium less than 0,06 g/l, and sodium – more than 0,2 g/l is typical for HD patients, while the content of total calcium more than 0,07 g/l is common for DB patients.

To the evidence based medicine opinion a clinical-laboratorial characteristic of oral cavity organs and tissues status in hypertensive disease, diabetes and chronic pyelonephritis patients has been given. It has been proved that in the patients with the studied pathology there are statistically significant differences of the oral cavity status index characteristic and physicochemical properties of oral liquid from analogous parameters of the research participants without the studied pathology. It has been proved that the clinical indexes characterizing the oral cavity health status are statistically significantly different in hypertensive disease and diabetes patients.

The work was submitted to the International Scientific Conference «Innovation technologies in stomatology», Jerusalem, May 1-7, 2008, came to the editorial office on 19.03.2008.

MORBIDITY WITH TEMPORARY DISABILITY IN COAL AND CHEMICAL INDUSTRY WORKERS

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The Kemerovo Region – is the region with a developed coal mining and chemical industries, thus the problem of workers' health formation in these branches is a topical one for public health service of Kuzbass. The purpose of the research is to study morbidity with temporary disability (MTD) of coalminers and workers of chemical enterprises (WCE) (2000-2006). The information about the MTD was got by

the method of excerption from disability certificates. The statistical treatment was carried out with use of application program package STATISTICA 6.0. The highest MTD case rate ($1435,2 \pm 0,01\%$ against $915,8 \pm 5,0\%$; $P < 0,001$) and disease duration ($20,0 \pm 0,3$ days against $14,0 \pm 2,1$ days; $P < 0,001$) are registered in coal producers' workers. Respiratory diseases rank first within the MTD of coalminers and WCE structure ($31,1 \pm 1,4\%$ and $29,1 \pm 1,8\%$), the apparatus system and connective tissue diseases take the second place ($24,9 \pm 1,3\%$ и $19,4 \pm 1,6\%$). Within the coalminers' MTD structure the third place is taken by traumas, intoxications – $20,6 \pm 1,2\%$, at chemical productions – blood circulatory system diseases – $11,6 \pm 1,3\%$, that is connected with the specificity of the productions. The prophylaxis remains one of the priority principles of the National public health service, so, a special topicality is acquired by the development of prophylactic and rehabilitation programs for coalminers, which seems to be practical only after the in-depth study of health status and life quality of the given social group. A perspective direction is an individual integrated assessment of the disease rise risk depending on the affecting factors totality, that will allow forming groups of dispensary observation and carry out dedicated medical and preventive measures in them.

The work is submitted to the International Scientific Conference “Actual problems of science and education”, Cuba (Varadero), March, 19-29, 2008, came to the editorial office on 20.02.2008.

CONDITION OF COAL INDUSTRY WORKERS' HEALTH

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The progressing RF population health deterioration is the fact of common knowledge, that is to the full extent referred also to coal enterprises workers. Taking into account the functioning Concept of the Presidential Program “Health of Working Population” the problems of coalminers' health preservation and promotion are gaining the priority-oriented value. The purpose of the given research has been the study of coal industry workers' total morbidity (TM). The data excerption from workers' disability certificates for the period from 1985 to 2006 was carried out. The ratings were processed using variance analysis methods on personal computer with MS EXCEL and STATISTICA 6.0 application program package. The authenticity of the got factors was estimated using the T-criterion of Student. The post-event analysis of the Kuzbass coalminers' health status testified that the TM had increased by 119,1%, from $1677,8 \pm 49,6\%$

(1985) to $1998,2 \pm 0,01\%$ (2006). The TM level decrease was registered in 1999 ($1315,4 \pm 0,01\%$). The TM structure changes took place. In 2006 respiratory diseases ranked first - 28,0% (1985 - 27,0%), the apparatus system and connective tissue diseases ranked second - 26,2% (1985 - 16,5%) and the third place was taken by traumas, intoxications and some other after-effects of external causes action - 16,5% (1985 - 25,1%). Among the main reasons exerting influence on the coalminers' health state there are social-occupational factors and low medical activity. The effect of the given factors on the TM occurrence is proved statistically by the analysis-of-variance method ($P < 0,05$). The research results suggest the necessity of coalminers' health status in-depth study and the development, based on the findings, of targeted preventive measures and rehabilitation program.

The work is submitted to the International Scientific Conference "Actual problems of science and education", Cuba (Varadero), March, 19-29, 2008, came to the editorial office on 20.02.2008.

TOTAL NON-ELASTIC RESISTANCE AND ALVEOLAR-CAPILLARY PERMEABILITY OF LUNGS AT COMMUNITY ACQUIRED PNEUMONIAS

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The investigation of clinical-physiological manifestations of community-acquired pneumonias (CAP) quite allows characterizing the patient's state and forming the functional component of the diagnosis (Chuchalin A.G. and co-authors, 2006). In particular, it is spread to the determination of the external respiration apparatus, which remains insufficiently studied at CAP up to the present time. So, the total non-elastic lung resistance (TNR) defined at the respiration biomechanics investigation at pneumonias was studied in single works (Tetenev F.F., 1981; Marshall R., Christie R., 1954). There are no works found out by us on the CAP TNR of lungs and its component – tissular rub – on lung zones and compared to the alveolar-capillary permeability of lungs.

The **purpose** of the work is to study and compared the lung TNR and alveolar-capillary permeability (ACP) in CAP patients in the acute period of the disease.

Materials and methods

35 patients suffering from the medium severity level CAP were examined, among them 21 pa-

tients with the focalization of pulmonary infiltration in the inferior lobe of the right lung and 14 patients with that in the inferior lobe of the left lung in the disease acuity (2-3 days of hospitalization); all the patients being aged from 16 to 55 years old. All the CAP patients and 30 healthy volunteers (I control group) were subject to the lung TNR investigation, the last being carried out in the phase of inspiration (TNR_{insp}) and expiration (TNR_{exp}): integral and regional values. The integral TNR was measured by the method of transpulmonary pressure and spiogram simultaneous recording. The regional TNR values in the superior, central and inferior lobes of lungs were measured by means of the simultaneous recording of zonal ventilation rheograms by the method of Fringerman E.A. and transpulmonary pressure. The graphic recording of the curves and the computation of integral and regional TNR factors was performed by means of a special computer program. Also, the ventilating pulmonoscintigraphy was performed on all the CAP patients and 10 healthy volunteers (II control group). The nuclear medicine studies were carried out on the gamma camera "Omega 500" ("Technicare", USA-Germany). The image registration and processing was performed with the help of the computer system "Scinty" produced by the RDC "Gemos" (Russia). As the radiopharmaceutical (RPC) for the ventilating pulmonoscintigraphy the DTPA was used. The polypositional static pulmonoscintigraphy was carried out after finishing the RPC inhalation in four standard projections, then repeatedly on the 10th and 30th min in the posterior-frontal projection. In the CAP patients and II control group the ACP was determined on the 10th and 30th min: primarily in the affected and intact lungs, then additionally in every lung on the 3 lobes (superior, central and inferior) – so called regional factors. As there were no authentic ACP differences between the right and left lungs and also the superior, central and inferior lobes found out in the control group, the general ACP values for the corresponding lung lobes were used. The findings got were subject to statistical processing with the help of the program STATISTICA-6, for Windows.

Results

The integral TNR_{exp} values were higher in the CAP patients, than in the healthy persons ($0,540 \pm 0,049$ kPa·sec/l and $0,369 \pm 0,036$ kPa·sec/l; $p = 0,003$). As a result of the TNR regional values studies in the CAP patients it was found out that in the affection area the TNR_{exp} increased with the infiltration presence in the inferior lobe of the right lung, and the TNR_{insp} and TNR_{exp} increased, if the infiltration was focalized in the inferior lobe of the left lung. In the inferior lobe of the intact lung the TNR didn't change; in the central lobe of the right lung the TNR_{insp} and TNR_{exp} were increased at any focalization of the pathologic process; in the superior lobe of the intact lung the TNR_{exp} increased at the dextral CAP and the TNR_{insp} and TNR_{exp} increased at the