of human life must be not less than 150 years, and our great compatriot I.I. Mechnikov laid emphasis that a death earlier than 150 years old is not a natural, but a violent one.

Unfortunately, as our research have testified, after the age of 6-8 yeas old a progressive deterioration of all health criteria, achieving the maximum by 14-15 years old, begins. By this age the CNS affectivity increases essentially ($P<0.001$); the functional activity of the inhibitory system and the CNS inhibitory control acutely deteriorate ($P<0.001$); the IRSD and muscles' RVR capacity fall ($P<0.001$) and a pronounced individual development hypertrophic type forms.

As a result, a healthy child's body with a quite completely formed mechanisms of adaptation and defence, prepared by the Nature for a long and happy life, for 7-8 school years looses its advantages, adaptive capabilities by 20-30% and becomes defenceless for any kind of harmful effects of the environment.

In this connection a considerable increase of a whole range of negative manifestations of the body life activity in school-children of middle and senior age, marked by many investigators, appears to be quite regular: the metabolism and energy resources consumption increase, the economical and operating efficiency of different organs and systems decreases, the CNS affectability increases and the cerebral cortex inhibitory control weakens, inadequate emotional reactions, neuroses and rapid fatigability emerge, adaptive capabilities of the body decrease, traumatism and case rate increase.

Regular sport activity, judging on the having been analyzed in our research dynamics of sport results growth and functional state of the body, breaks this endless vicious circle, promoting the restoration and perfection of one's own bodily machinery of urgent adaptation and defence. However, as our long-term experience and the experiments' results testify, usual sport activity does not suffice to solve this deep problem effectively. The development of a brand new complex system of special physical and functional training, the use of which from the early child age will provide the all-round development and perfection (training) of inhibitory-relaxation processes, one's own defence mechanisms and formation of the best rational types of long-term adaptation and individual development for an organism.

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CLINICO-EPIDEMIOLOGICAL ASPECTS OF CEREBROVASCULAR PATHOLOGY IN PRIMORYE TERRITORY

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By 2005 cerebrovascular diseases (CVD) had become making 21,2% in the blood system diseases structure in people living in Primorye Territory, having increased for seven years by 5,5%.

Their registration frequency in developed industrial cities (Artyom, Spassk, Lesozavodsk, Partizansk) reached 624,7/100000-1333,4/100000 people of the population, in rural area it was limited by 194,8/100000, that corresponds to the average statistical data of Russia.

The CVD incidence rate registration among adult population showed that among the hospitalized with the given pathology into the neurology unit of the City Clinical Hospital № 1, the patients with early manifestations of cerebrovascular insufficiency (EMCVI) make 2,2%; with insults (I) – 76,2%; with chronic CVD forms – 17,1%; with insults sequela (IS) – 4,5%. In the structure of cerebral accidents the ischemic one (II) prevails (66,9%) being ahead of the hemorrhagic insult (HI) by 49,2%. The transient ischemic attacks' (TIA) development level is ranging from 15,4%; the specific weight of subarachnoidal hemorrhages (SAH) makes 54,7% of the apoplectic shocks.

The seven-year long (2000-2006) dynamics of hospitalization of persons with the enumerated CVD forms is indicative of the reflecting them indexes' growth irregularity and of the maximal increase of such forms as II, SAH, TIA and chronic CVD forms by 2006.

Among the hospitalized persons with EMCVI men prevail; with insults, their sequela and chronic CVD forms – women do. The quotient of different insult forms development and chronic CVD forms frequency in men and women differ in the fact that TIA, II and chronic CVD forms (1,8, 1,14 and 2,17 times accordingly) progress in women more often than in men, and HI – 1,02 times as often in men than in women. The CVD development duration fall primarily on the age of 60-69 years old.

36% of the admitted to the hospital were sent by their Medical and Preventive Treatment Facility, 58,8% - Emergency Call Service, and only 5,2% came themselves. The MPTF sent primarily patients with EMCVI, chronic forms of CVD, IS, and ECS – with MCVI, HI and II.

Totally 804 persons died, 1,4% of them have fallen on the age category from 20 to 40; 6,9% - 40-49 years old; 17,9% - 50-59; 29,9% - 60-69; 43,9% - from 70 and older. There were 1,7 times more men than women among the died at the age of 40-49;

1,4 times – at the age of 50-59. After 60 years old there became more women: in the age category up to 70 their quantity exceeded the number of men 1,2 times, and after 70 – 2,3 times.

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SOME ASPECTS OF HEALTHY AND OBSTRUCTIVE PULMONARY DISEASE PATIENTS' RESPIRATORY SOUNDS COMPARATIVE ASSESSMENT

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Subject actuality

Modern computer technologies open up new possibilities in studying respiratory sounds acoustics, their treatment, archivation and standardization. Active research activity of scientists of a range of European countries is combined in the project CORSA (Computerized Respiratory Sound Analysis).

Russian scientists have developed an ingenious method of respiratory murmurs time and frequency characteristics analysis based on registration (scanning) of respiratory cycle – bronchophonography (BPG). The BPG is carried out with the help of computer diagnostic complex (CDC) "Pattern". Such parameters as respiration period, instantaneous spectrum of respiration process within the limits from 200 to 12600 Hz, respiration acoustic mechanical equivalent (RAM) – the final integral characteristic representing the quantitative assessment of metabolic cost of the bronchopulmonary system for specific acoustical phenomenon activation and being expressed in millijoules (mJ), are investigated. The RAM measuring is performed in different frequency diapasons (RAM 0 – 200-1200 Hz - so called "basic" diapason, RAM 1 – 1200-12600 Hz - the whole spectrum, RAM 2 – 5000-12600 Hz – high frequency and RAM 3 – 1200-5000 Hz – low frequency ones), K – is the coefficient reflecting the same parameters in relative units in the corresponding frequency spectrums (K1 – the whole spectrum, K2 – high frequency and K3 – low frequency ones).

Purpose of work

Respiration patterns formation in healthy persons and obstructive pulmonary disease patients and their comparative assessment.

Materials and methods

We have examined 108 healthy persons (50 men and 58 women) and 166 (85 men and 81 women) chronic obstructive pulmonary disease (COPD) patients: 91 bronchial allergy patients and 62 chronic obstructive bronchitis ones and 13 patients with these diseases' symptoms combination. All the patients had the functional disturbance of external respiration on the obstructive type in common. The BPG was carried out in the modes of quiet and forced respiration. More than 1000 of bronchophonograms have been analyzed as a whole. Nonparametric tests were used at the statistical treatment of the material. The statistical significance of difference between the factors in the examined groups was evaluated on the Mann-Whitney test.

Results

In the examined groups the authentic ($p<0,05$) difference of RAM1, RAM3, K1, K3 factors in the mode of quiet respiration and RAM 0, RAM1, RAM2, RAM3, K1, K2, K3 ones at forced expiration was got.

Conclusions

Thus, we can hope that bronchophonography gives the possibility to get unbiased parameters of respiratory sounds which differ in healthy persons and obstructive disease patients, that can be used as a supplementary evaluative parameter in functional diagnostics of pulmonary diseases.

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INFLUENCE OF OXIDATIVE STRESS ON REDOX-STATE AND PERIPHERAL BLOOD HETEROPHILIC LEUKOCYTES APOPTOTIC PROGRAM REALIZATION

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Purpose: oxidative processes and neutrophils apoptosis evaluation in acute period of community-acquired pneumonia (CAP).

Materials and methods: 34 patients with the verified diagnosis of CAP were examined, the control made 32 healthy donors. Neutrophils were released on the bi-gradient; the number of apoptotic cells and the intracellular level of oxygen active forms (OAF) were evaluated in cell cultures by the method of ductal laser cytometry; the number of oxygenized carbonyl-proteins (CP) and cytokine production (IL-8, FNOα) were defined by the IFA method; the OH group production, myeloperoxidase (MP), glutathione-peroxidase (GP), glutathione-reductase (GR), thioredoxine- reductase (TRR) activity, deoxidized (DG)