

level of stress-resistance according to psychological testing), that is data of the definition of stress-resistance level according to psychological testing were contradiction to common knowledge.

According to J. Streliya (1982) the personality types are divided into the most adaptive (phlegmatic and sanguine types) and the least adaptive (melancholic and choleric types), the students with high stress-resistance level turn out to be the most adaptive and the persons with moderate and low stress-resistance level – less adaptive. When comparing the levels of stress-resistance among students, that was defined according to heart-breathing synchronism parameters with the adaptive abilities of the tested a complete correspondence was observed. But when comparing the stress-resistance level that was defined by psychological tests with the adaptive abilities of the tested there was no complete correspondence. Three students of the most adaptive group were defined as persons with moderate stress-resistance level.

Among the students with high level of stress-resistance according to heart-breathing synchronism parameters low level of anxiety was observed, among those with moderate and low level – moderate and high level correspondingly. While defining stress-resistance level among students by psychological testing, no complete coincidence between stress-resistance and anxiety levels was found.

Thus, for students, the comparison of heart-breathing synchronism parameters with the personality types, neurotism, adaptive abilities, the anxiety level, and stress-resistance parameters showed us, that the results of heart-breathing synchronism probes turn out to be more precise than psychological testing data.

On the other hand, analysis of the heart-breathing synchronism parameters showed us that the students with high stress-resistance level had the widest synchronization range and the smallest duration of its development on the minimum range border. With the moderate level the range width was smaller, and the development duration – bigger, and with the low level of stress-resistance the synchronization range width was the smallest and the duration of its development was the biggest.

Thus, the probe of heart-breathing synchronism can be used for objective integral estimation of stress-resistance level among the students. It is more informative than psychological methods.

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CORRELATION BETWEEN THE PROSTATIC STRUCTURE AND SOME INDICATORS OF THE NONSPECIFIC BODY RESISTANCE AND SYMPATHOADRENAL ACTIVITY

¹Logunova L.V., ²Zubrilchev I.V.

¹The Ryazan State I.P. Pavlov Medical University, Ryazan, Russia,

²The North Ossetian State Medical Academy, Vladikavkaz, Russia

Gland inflammation plays an important role in the pathogenesis of fibrocystic prostatopathy and local adenomatosis against the background of the age-specific discoordination of the central and peripheral endocrine organs. The adenomatosis and inflammation provoke a number of clinical symptoms, which considerably inconvenience patients causing a constant psychological and emotional stress. Chronic growth of active catecholamine concentration (CA) and adrenal cortex hormones aggravate the age-dependent hormonal misbalance and reduce the functional activity of immunocompetent tissue, monocyte-phagocyte system and neutrophilocytes, which in its turn reduces the nonspecific body resistance. One of the indicators of the functional condition of a sympathoadrenal system is the CA content in erythrocytes; and one of the elements of the nonspecific body resistance are the nonenzymatic cationic proteins (NCP) of neutrophilocytes, which determine to a large extent their bactericide function. They can be also classified as signal-regulatory peptides.

This research consisted of two parts: morphological and clinical. The first part of the research included the histological and morphological evaluation of the structural changes in 20 prostate glands obtained from dead persons aged between 50 and 70 years, who suffered from different pathologies and according to anamnesis (medical report data), such associated diseases as nonmalignant hyperplasia of prostate gland (NHPG) and NHPG complicated by chronic prostatitis (CP). The clinical part was aimed at determining the NCP content in blood neutrophilocytes and CA concentration in erythrocytes, followed by calculating an average cytochemical coefficient (ACC) in 28 patients with NHPG, including the 8 patients with CP. The cytochemical research methods used for the evaluation, were adjusted to the age group of the dead material donors.

In the majority of cases, histological changes in prostate gland with NHPG involved stromal hyperplasia with the overgrowth of fibrous tissue and new growth in blood vessels, or complete hyperplasia with both proliferative glandular and

stromal components. Moreover, the average area of the glandular tissue was $29,9 \pm 4,7$ % in the central part and $32,3 \pm 4,9$ % in the peripheral part, connective tissue – $43,7 \pm 5,5$ % and $48,6 \pm 5,7$ %, muscles – $26,4 \pm 4,0$ % and $19,4 \pm 3,8$ % correspondingly. Comparing the obtained data with the specific tissue volume in a healthy prostate gland, we can see that under the conditions of NHPG, grows mainly the connective tissue in peripheral part; moreover, its area increases by $23,6 \pm 1,3$ %. The biggest changes in the structure of prostate gland were observed in persons who experienced much stress, viral infections, chronic inflammatory processes and excessive allergen challenges during their life. A similar trend was revealed during the histochemical analysis. For example, the maximal reduction of the ACC in NCP level till $0,95 \pm 0,06$ (normal value $1,58 \pm 0,03$) and its growth till $2,17 \pm 0,012$ in CA content (normal value $1,76 \pm 0,02$) were observed in patients with long-standing NHPG complicated by CP.

To sum up, the results of the conducted research prove that degree of the structural changes in prostate gland with NHPG, is considerably influenced by the level of nonspecific body resistance, and activity of sympathoadrenal system, which should be taken into account during the treatment and prevention of this pathology.

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THE HEMODYAFILTRATION IN THE ACUTE RENAL FAILURE AT THE PATIENTS' HAEMORRHAGIC FEVER WITH THE NEPHRITIC SYNDROME

Trusov V.V., Shaklein A.V.

The Izhevsk State Medical Academy

The Udmurt Republic is the natural focus and the hot spot of the haemorrhagic fever with the nephritic syndrome (HFNS). The acute renal failure (ARF), by our data, is being developed from 24 up to 49 % of the HFNS diseased persons, at the severe forms of which, side by side with the medicamental therapy, the hemodialysis is being used. In the last years, the efferent therapy new methods – such, as the hemofiltration, the hemodyafiltration (HDF) are being used for the ARF medical treatment.

The Research's Aim

It is necessary to be given the HDF efficiency general clinical assessment with kidneys' functional state dynamics study at the patients' HFNS severe form, having complicated by the ARF.

The Research's Material and Methods

The 65 HFNS diseased persons with the ARF at the age of from 19 up to 60 years, whom, the HDF was used by the indications in the «on-line plus» regime, had been made up the researched group.

So, the HDF procedures have been carried out at the 4008S devices of the «Fresenius» firm with the «Fresenius F 605» hemodyafilters application.

The ARF clinical and the traditional biochemical parameters have already been included into the efficiency assessment. The kidneys' function ultrasonic research with the blood circulation, the blood flow and its velocity parameters definition in the renal vessels has been carried out. The β_2 – microalbumin has already been defined in the dynamics in the blood and in the urine; the microcirculation state has been estimated.

The Received Results. The HDF medical treatment adequacy, according to the AFR usual clinical and the biochemical parameters, has already been achieved at all the patients (e.g. the urea, the creatinine, the electrolytic balance, the β_2 – microalbumin, the acid – based homeostasis, the lipids peroxidation, the microcirculation indices and the others). By the renal ultrasonic research, the quite positive dynamics has been revealed. So, the before increased kidneys volume (e.g. $303,7 \pm 13,2$ cm³– $262,3 \pm 8,2$ cm³; $p < 0,05$) the pyramids cross – section (e.g. $1,45 \pm 0,04$ cm²– $0,83 \pm 0,04$ cm²; $p < 0,01$), the bast layer echogenicity (e.g. $27,2 \pm 0,08$ – $22,1 \pm 0,6$ standard units; $p < 0,01$) have been statistically and significantly decreased.

The blood circulation and the blood flow, its velocity all the parameters in the kidneys have already considerably been improved (e.g. the blood flow systolic rate: $50,8 \pm 2,5$ – $58,8 \pm 2,2$ cm/s; $p < 0,05$; the blood flow diastolic rate: $22,1 \pm 0,4$ – $24,2 \pm 0,2$ cm/s; $p < 0,05$; the blood flow average rate $15,0 \pm 0,5$ – $29,4 \pm 1,2$ cm/s; $p < 0,01$; the blood flow volume rate $161,7 \pm 8,6$ – $216 \pm 8,8$; $p < 0,01$).

The Conclusions

The substitutive renal therapy carrying out at the HFNS patients with the ARF hemodyafiltration in the «on-line plus» regime is being exerted the expressed clinical effect with the quick biochemical parameters stabilization and with the kidneys' functional state restoration.

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