

Materials of Conferences

POSSIBLE WAYS OF BLOOD PRESSURE CORRECTION AT PATIENTS WITH DIABETES MELLITUS ASSOCIATED WITH COPD

Aksenov K.V., Trusov V.V., Ivanov A.G.
Izhevsk State Medical Academy
Izhevsk, Russia

The aim of our research was to evaluate the effectiveness of the imidazoline receptor agonist – moxonidine («Physiotens») in the treatment for high blood pressure at patients with diabetes mellitus type 2 associated with the chronic obstructive pulmonary disease (COPD).

Materials and methods: our study group included 28 patients with diabetes mellitus type 2 (average age - $53,7 \pm 3,1$ years old, duration of diabetes mellitus - $9,8 \pm 1,1$ years) associated with COPD of I-II stages (GOLD, 2003). Mild COPD was diagnosed at 21 patients, moderate - at 7 patients. All patients received Physiotens as a monotherapy in dose 0,2 mg/day with titration till 0,6 mg/day. The therapy duration was 24 weeks. All patients received the earlier prescribed broncholytic therapy. The examination of the test persons included the following aspects: daily monitoring of blood pressure; evaluation of microcirculation by bulbar biomicroscopy method including estimation of perivascular space, vessels and intravascular blood flow and determination of conjunctival indices; examination of endothelium-dependent vasodilation; measuring insulin resistance according to HOMA IR. The function of external respiration was studied using lung-tester «Spiro S-100».

Results: after the treatment, the average daily systolic blood pressure reduced by 13,3% ($p < 0,01$), and diastolic by 10,1% ($p < 0,05$). Daily blood pressure profiles showed a positive dynamics; variability, value and velocity of the morning rise in blood pressure reduced ($p < 0,01$). All studied parameters of the microcircular blood flow improved: we observed a diminution of perivascular edema, higher velocity of microcircular blood flow and disappearing of «sludge syndrome». Perivascular conjunctival index reduced from $2,12 \pm 0,08$ till $1,85 \pm 0,09$ ($p < 0,05$); vascular - from $14,13 \pm 1,11$ till $10,12 \pm 0,91$ ($p < 0,01$); intravascular - from $6,94 \pm 0,44$ till $5,39 \pm 0,31$ ($p < 0,05$). Evaluating the endothelium-dependent vasodilation, we could see a reliable growth of brachial artery diameter ($p < 0,05$). The HOMA IR index reduced reliably ($p < 0,05$) after taking Physiotens. We have not observed any statistically significant changes in external respiration during the conducted study.

Conclusion: Physiotens (moxonidine) can be recommended as a basic therapeutic medication to correct blood pressure at patients with diabetes mellitus type 2 associated with COPD.

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EPIDEMIOLOGIC PECULIARITIES OF THE CEREBROVASCULAR DISTURBANCES IN THE VERTEBROBASILAR SYSTEM AMONG THE POPULATION OF THE KARELSKY REGION, PETROZAVODSK.

Dorshakova O.V., Belousova G.P., Lupandin Y.V., Subbotina N.S.
Petrozavodsk State University
Petrozavodsk, Russia

Bioclimatic severity of the Karelsky region is determined by its high latitude, as well as by the main environmental factors of the North – temperature and light conditions, humidity, pressure, speed and direction of wind – and their negative influence on people's health (N.A. Agadzhanyan, P.G. Petrova, 1996; N.V. Dorshakova, 1997). According to the data of the Republican center of medical analytics, prevalence of cerebrovascular diseases is high in the region, on average 11,4 cases per 1000 persons. High prevalence of acute ischemic cerebrovascular disturbances (ACD) was measured at the level of 8,4 cases per 1000 persons. In this respect, epidemiologic peculiarities of the cerebral blood flow disturbances among region's population become a worthy issue for research. The aim of this study was to research on the epidemiologic peculiarities of the cerebral blood flow disturbances of the vertebrobasilar system (VBS) among the citizens of Kareliya's capital Petrozavodsk. The study group included 140 patients with cerebral blood flow disturbances (CBFD) of VBS, who underwent a treatment at the angioneurology department of the Petrozavodsk City Emergency Hospital. The group consisted of 61 men (43,6%) and 79 women (56,4%). The patients were aged between 38 and 77, average age is $55,4 \pm 7,7$. Age structure of the study group was the following: till 45 years old – 10,7%, 46-59 – 61,4%, 60-74 – 27,1%, over 74 years old – 0,7%. Working-age patients prevailed in the group – 72,1%. Medical history of the patients with ACD often included ischemic stroke of VBS – 42,1%, ischemic stroke in the carotid system (CS) – 17,1% and mini-stroke of VBS – 17,1%, less frequently were found ischemic stroke of both carotid and vertebrobasilar systems, – 7,9%, transient ischemic attacks (TIA) in CS – 7,9%, TIA in VBS – 6,6%, mini-stroke in CS – 1,3%. Men had ACD more often – 59,2%. It was revealed, that 84,2% of the patients suffered one ischemic ACD incident, 14,5% – two ACD incidents and 1,3% of the patients had three ACD incidents. To sum up, prevalence of