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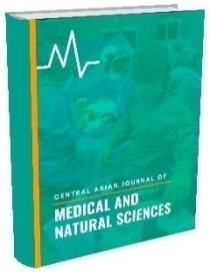

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Cerebral Ischemia in Patients with Atrial Fibrillation

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Abstract: This article analyzed peculiarities cerebral hemodynamics at 15 sick discirculatory encephalopathy, suffering flickering arrhythmia, in comparison With similar group sick without violations cardiac rhythm. Revealed essential instability of cerebral blood flow in arrhythmia, leading to raising risk development cerebral ischemia.

Key words: Cardiac arrhythmias, atrial fibrillation, cerebral circulation, cerebral ischemia.

Atrial fibrillation (also called Afib or AF) is an irregular heart rhythm (arrhythmia) that begins in the upper (atria) of your heart. If you have atrial fibrillation, the normal cycle of electrical impulses in your heart is interrupted. This leads to a fast, chaotic heart rhythm and poor movement of blood from your atria to your lower chambers (ventricles).

There are three main types of atrial fibrillation.

Paroxysmal Afib lasts less than one week and usually stops on its own without treatment. (Paroxysmal is pronounced par-ək-ˈsiz-məl.)

Persistent Afib lasts more than one week and needs treatment.

Long-standing persistent Afib lasts more than a year and is sometimes difficult to treat.

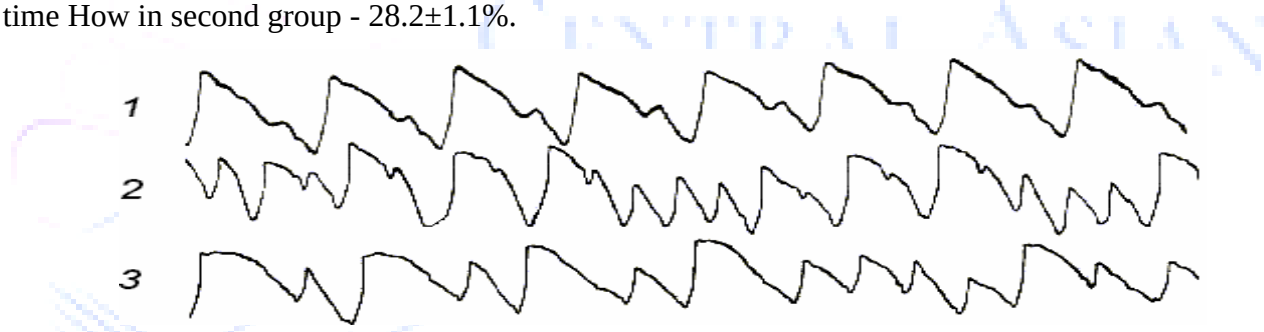
It is known that cardiac arrhythmias are essential for the occurrence of acute and chronic cerebrovascular pathology (1,2,5). As rule Availability arrhythmias considered as one of the important prerequisites for the development of cerebral thromboembolism (2.4). At this lesser Attention given chronic violations cerebral blood circulation, which are formed in patients against the background of long-term disorders cardiac rhythm. We have studied cerebral hemodynamics in 30 patients (fourteen women and sixteen men), in age from 40 before 65 years old, With clinical manifestations dyscirculatory encephalopathy (DE) I-II stages. Wherein 15 patients had permanent max and - and normosystolic form of atrial fibrillation, which developed against the background of ischemic heart diseases. 15 patients second groups not suffered from impairments cardiac rhythm.

To study cerebral blood flow, rheoencephalography (REG) and ultrasound were used. dopplerography (UZDG). REG registration was carried out in front of o- and occipito - mastoid leads on computer rheograph firms NEUROSOFT on standard methodology (3). USDG of general and extracranial segments internal carotid arteries was carried out on apparatus WD-CV100 With program, allowing count middle linear speed blood flow (LSC).

At analysis data, besides standard indicators, characterizing vascular tone, peripheral vascular resistance, venous outflow and elasticity of the vascular wall, us same carried out grade stability cerebral blood flow, for what calculated coefficient variations amplitude pulse blood filling brain vessels and middle LSK.

Necessary Mark, what intergroup differences, concerning indicators tone and elasticity of cerebral vessels, peripheral vascular resistance and venous outflow were statistically insignificant. At the same time, significant differences were found in analysis of data on the amplitude of pulse blood filling and LBF. Already in visual study obtained data drew attention to the significant variability of the amplitude of rheographic waves and Doppler complexes, as well as uneven time intervals between them in group of patients with flickering arrhythmia (fig.1)

It is known that there is some unevenness in the amplitude of REG waves in healthy individuals, however, the degree of this variability never exceeds a few percent. Coefficient REG amplitude variations in the group of patients without arrhythmia was in the carotid system 6.3±0.29%, vertebrobasilar - 7.3±0.25%. AT group patients With violations rhythm indicators of the amplitude of pulse blood filling were significantly lower (P<0.05), and the values CV exceeded those in patients of the first group by 3-4 times, amounting to 25.1±0.93%, respectively. and 28.7%±1.2%. Except the one at sick given groups authentically greater was asymmetry blood filling of blood vessels and less adequate response to functional loads. Values mean LBF in patients of the second group were also significantly lower than in the first (P<0.05), CV LSK in first group amounted to 8.9±0.32%, in then time How in second group - 28.2±1.1%.



Rice. 1. REG of patients with DE without cardiac arrhythmias (1) and with atrial fibrillation (2-3).

Main options cerebral hemodynamics at sick both groups represented in table.

Table 1. Main options cerebral hemodynamics at sick DE With violation and without violations cardiac rhythm

Groups sick	*AmplitudeREG (FM) Ohm*	*HF (FM) %*	*Amplitude REG (OM) Ohm*	*HF (OM) %*	*KA (middle) %*	*LSK (medium) cm / sec*
DE without arrhythmias	0.12±0.008	6.3±0.29	0.08±0.007	7.3±0.25	16.4±1.5	14.5±1.4
DE with arrhythmia	0.10±0.007*	25.1±0.93	0.06±0.005*	28.7%±1.2	20.3±1.7*	11.4±1.0

Note: ∗– P<0.05

As follows from the data obtained, cerebral blood flow in patients suffering from atrial fibrillation arrhythmia, characterized by a decrease in the amplitude of blood filling of the cerebral vessels and LBF. At the same time, there is a pronounced uneven blood supply to the cerebral vessels, as in voluminous, So and in temporary respect; significant fluctuations speed blood flowcontribute violation his laminar and contribute essential element instability. Revealed changes cerebral hemodynamics, which often fit together With others pathogenic factors (atherosclerosis main vessels head, arterial

hypertension and etc.), promotes decrease compensatory opportunities autoregulation cerebral circulation.

Conclusion . So the way Availability flickering arrhythmias carries in yourself danger not only development thromboembolic complications, but also leads to adverse changes in cerebral blood flow to help exhaustion hemodynamic head reserve brain and increasing risk his ischemic defeats.

Literature

1. Vereshchagin N. AT. and et al . Cardioneurology : Problems cardiogenic cerebral embolism // Journal of Eurology and Psychiatry.-1993.- No. 2, S.90-96.
2. vilensky B.S. Stroke .- SPB: medical informational agency , 1995 288 With.
3. Ronkin M.A., Ivanov L.B. Rheography in clinical practice.– M.: MBN.–1997.- P.403.
4. Chazov E.I., Bogolyubov V.M. Violations rhythm hearts .- M .: Medicine , 1972 FROM. 43-49; 157-165.
5. Yakhno N.N., Lavrentieva M.A. Clinical and hemodynamic features of atherosclerotic discirculatory encephalopathy // Journal. neurology _ and psychiatry.-1994.- No. 1, S.3-6.
6. Зокиров М.М. & Касымова, С. А., & Рустамова, И. К. (2019). Нейропсихологическое исследование пациентов с длительной посттравматической эпилепсией. *Молодой ученый*, (4), 116-118.
7. Sarvinoz, T., & Muzaffar, Z. (2022). Rehabilitation aspects of water therapy in modern medicine. *Uzbek Scholar Journal*, *6*, 102-106.
8. Sarvinoz, T., & Muzaffar, Z. (2022). Rehabilitation for childhood cerebral palsy. *Uzbek Scholar Journal*, *6*, 97-101.
9. Nabievna, M. Y., & Muzaffar, Z. (2022). Literatural review of the relevance of the problem of neurosaids. *Modern Journal of Social Sciences and Humanities*, *4*, 558-561.
10. Nabievna, M. Y., & Muzaffar, Z. (2022). Modern View on the Pathogenesis of Hiv Encephalopathy. *Spanish Journal of Innovation and Integrity*, *6*, 478-481.
11. Muzaffar, Z., & Okilbeck, M. (2022). Dementia and arterial hypertension. *Modern Journal of Social Sciences and Humanities*, *4*, 19-23.
12. Muzaffar, Z., (2022). Chronic Obstructive Pulmonary Disease in Combination with Cardiovascular Diseases. *European Multidisciplinary Journal of Modern Science*, *6*, 150-155.
13. Зокиров, М., & Мухаммаджонов, О. (2022). Особенности развития тревожных и депрессивных расстройств при заболеваниях, сопровождающихся хроническим болевым синдромом. *Barqarorlik va yetakchi tadqiqotlar onlayn ilmiy jurnali*, 841-844.
14. Зокиров, М., & Мухаммаджонов, О. (2022). Вич энцефалопатия и его патогенетические аспекты. *Barqarorlik va yetakchi tadqiqotlar onlayn ilmiy jurnali*, 855-858.
15. Muzaffar, Z. (2022). HIV Encephalopathy and its Pathogenetic Aspects. *European Multidisciplinary Journal of Modern Science*, *4*, 843-846.
16. Зокиров, М. М., Рустамова, И. К., Касимова, С. А., & Кучкарова, О. Б. (2019). Жарохатдан кейинги талвасада кечки нейровизуализацион ўзгаришлар. In *Современная медицина: новые подходы и актуальные исследования* (pp. 56-60).

17. Zokirov M., Mukhammadjonov, O. (2022). Cognitive Impairments in Patients with HIV-Associated Encephalopathy. *Central asian journal of medical and natural sciences*, *3*(2), 401-405.

18. Zokirov, M. M., & Mukhammadjonov, O. (2022). Cognitive impairment in patients with Parkinson's disease and optimization of its treatment. *Eurasian Scientific Herald*, *7*, 177-180.

19. Зокиров, М., & Туланбоева, С. (2022). Когнитивные нарушений у пациентов с ВИЧ–ассоциированной энцефалопатией. *Barqarorlik va yetakchi tadqiqotlar onlayn ilmiy jurnali*, 68-73.

20. Muzaffar, Z. (2022). Literature reviews on nervous system damage during hiv infection. *Barqarorlik va yetakchi tadqiqotlar onlayn ilmiy jurnali*, *2*(9), 141-147.

21. Muzaffar, Z. (2022). CORRECTION OF COGNITIVE DISORDERS IN PATIENTS WITH HIV ENCEPHALOPATHY. *Web of Scientist: International Scientific Research Journal*, *3*(12), 402-411.

22. Muzaffar, Z. (2022). Psychological State in Patients with HIV Infection. *AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI*, *1*(6), 52-56.

23. Muhammadjonov, O., & Zokirov, M. 2-toifa qandli diabet bilan og'rigan bemorlarda yurak-qon tomir kasalliklarining xavf omillarining tarqalishi. *Студенческий вестник Учредители: Общество с ограниченной ответственностью" Интернаука" Тематическое направление: Other social sciences*, 53-54.