

04.05.2023 ОНЛАЙН НАУКОВО-ПРАКТИЧНА КОНФЕРЕНЦІЯ «ХВОРОБА ДРІБНИХ СУДИН: МАЛІ СУДИНИ – ВЕЛИКІ ПРОБЛЕМИ. НАДАЙ ЗАХИСТ МОЗКУ ВЧАСНО ТА СУЧАСНО»



RESOLUTION

Teleconference «Small vessels disease: small vessels – big problems. Protect Brain in Time and Modern Way»

May 4, 2023 Kyiv, Ukraine

About 3,500 health care specialists have registered to participate in the teleconference «Small vessels disease: small vessels – big problems. Protect Brain in Time and Modern Way».

The teleconference was held in a multidisciplinary format and brought together doctors of narrow specialties: neurologists, therapists, and family doctors. These doctors face daily the manifestations and consequences of diseases of small vessels.

The purpose of the teleconference is to reveal the etiology and pathogenesis of small vessels disease. To raise the issue of endothelial dysfunction, hypo perfusion of the brain and neurological deficit in the pathogenesis of SVD, which lead to damage of the NVU. Highlight the instrumental methods of SVD diagnosis available in real clinical practice and approaches to SVD treatment.

The event is registered in the Testing Center at the Ministry of Health of Ukraine. Event number: 5502712. All participants will receive a certificate entitling them to 5 BPR points in accordance with the Order of the Ministry of Health of Ukraine dated 02.22.2019 №446. The registration number of the BPR provider is 1208.

The participants were presented with 5 presentations, which covered the following issues:

- Chronic small vascular disease: ischemia attacks from the start of the disease, the main pathophysiological links of the disease.
- Small vascular disease disease of more than one day: how does the CNS function with age and time?
- Brain dynamics: synaptic bursts and their role in neuroplasticity.
- Correction of cognitive impairment in patients with small vessel disease: «RELATIVE» pathogenetic scheme.
- The disease of small cerebral vessels is the predictor of stroke and dementia.

Conclusions and decisions based on the discussion of reports:

1. Every year, the SVD morbidity statistics in Ukraine are growing and today this figure is more than 3 000 000 patients. Vascular disease is one of the leading causes of death and disability. The number of patients with SVD is underestimated, as far as most of the patients are asymptomatic, and so it remains undetected and untreated in the most of clinical cases.

- 2. Today, it is possible to diagnose the disease of small vessels in a timely manner. A set of methods is used for primary screening, including mini-mental test (MMSE), «word memory», «Schulte tables», as well as instrumental diagnostic methods CT or MRI of the brain and ultrasound of the extracerebral and intrusive vessels.
- 3. According to the Neuroimaging Standards HARMONISING BRAIN IMAGING METHODS FOR VASCULAR CONTRIBUTIONS TO NEURODEGENERATION, the clinical course of small vessel disease is: subcortical infarcts, lacunae of probably vascular origin, white matter hyperintensity, expanded perivascular spaces, cerebral microbleeds, brain atrophy. In order to prevent these irreversible changes in the patient's brain, it is important to start prevention and treatment of the disease of small vessels from the age of 30-40 «so that it does not turn into never». Disease of small vessels is not a disease of only elderly people!
- 4. Noting that the disease of small vessels is a serious medical problem that can lead to heart attacks, strokes, dementia, and other negative effects on human health, it is therefore understandable, that there is a need to find the latest approaches to treating small vascular disease, which primarily include the earliest possible onset of pathogenetic pharmacotherapy to prevent damage to neurovascular unit consisting of nerve and vascular components.
- 5. One of the main causes of the disease of small vessels damaging HVU is the reduction of NO synthesis, which leads to endothelial dysfunction, which in its turn provokes vasoconstriction, inflammation, adhesion of leukocytes to the vascular wall, proliferation of smooth muscle cells of vessels, depressed thrombosis and ischemia (oxidative stress).
- 6. To solve the problem of endothelial dysfunction and prevent complications, the SVD was the direct use of nitrogen oxide donator (L-arginine infusion solution) as a physiological vasodilator to reduce vasodilation spasm and improve brain perfusion. Another equally important pathogenetic link of the SVD is vasodilation. Vascular remodeling is a process of vascular reconstruction that can occur due to inflammation, hypertension, hypercholesterolemia and other factors. Therefore, it is clear that the disease of small vessels is a disease that requires complex therapy with an impact on every link of pathogenesis.
- 7. Complex solution treatment with enhanced microcirculatory action based on pentoxifylline and Ringer's lactate is aimed at restoring microcirculation and eliminating inflammatory mediators, and reducing side effects associated with the use of ampoulated pentoxifylline. Ready solutions produced by the industrial dilution method should be used. Due to its convincing anti-inflammatory effects, a complex solution with an enhanced microcirculatory action based on pentoxifylline and Ringer's lactate may be an ideal candidate for use as an adjunct to the correction of microcirculatory disturbances in SVD. The effect of correcting microcirculatory disorders is realized through such mechanisms as reducing the viscosity of plasma and whole blood, reducing the amount of fibrinogen, increasing the elasticity of erythrocytes, and inhibiting their aggregation, inhibiting the activation of neutrophils, and improving the blood flow rate.
- 8. The core of the clinical manifestations of the disease of the small vessels of the brain are cognitive disorders that cause difficulty in focusing, problems with clear thinking, delirium, pseudobulbar affect, and others. Therefore, it is advisable to use a complex solution of electrolytes, citicoline and sodium lactate, which provides a double modulation of nerve impulse transmission in patients with SVD, which contributes to the rapid functional rehabilitation of patients and an increase in the level of brain activity.

9. For a full course of vascular recovery and synaptic plasticity in patients with SVD, it is recommended to continue the outpatient oral treatment with a levorotatory donator of nitrogen oxide (L-arginine aspartate) after the infusion treatment and oral citicoline in the form of 200 ml release to achieve high SVD treatment compliance. The choice of the optimal medicinal means of oral citicoline, taking into account the form of release (200 ml is the course of treatment in one bottle), the associated diseases and the financial capabilities of the patient can positively affect the duration and quality of treatment.

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Номер провайдера 1208 Реєстраційний номер заходу БПР 5502712

