

Resolution

Teleconference «Medical needs deferred as a result of pandemic COVID-19»

March 11, 2021

Kyiv, Ukraine

Almost 10 000 health care specialists from all regions of Ukraine have registered to participate in the Teleconference “Medical needs deferred as a result of pandemic COVID-19”.

Interdisciplinary format of the Teleconference was ensured by involvement of speakers from different special fields, such as: cardiologists, neurologists, critical care physicians, general practitioners, pulmonologists, and family doctors.

Eleven main reports were offered to the participants for review and discussion and they were dealing with the following issues:

- Deferred medical needs of patient with comorbidity. COVID crisis: no access to elective care.
- What shall we do for the patient with diabetes mellitus in 2021?
- What threats faces the patient with arterial hypertension during COVID-19?
- Approaches to neurological rehabilitation of patients after COVID-19.
- All roads lead back to the family doctor: focus on prevention of clinical manifests of chronic diseases.
- Postponement of elective care: focus on patients with chronic ischemia of brain.
- Modern approaches to correction of iron deficiency in clinic for internal medicine.
- Iron deficiency as a relevant clinical issue in case of congestive heart failure.
- Exacerbation of medical and social problem caused by pandemic – less control of asthma and COPD.
- Changing the paradigm of use of inhaled glucocorticosteroids.

Conclusions and decisions based on discussion of reports:

1. Biopsychosocial model of the assessment of patient in sickness requires considering of his/her psychological flexibility, adaptive capacity and emotions. That is why only comprehensive approach to the patient's problems, including those beyond post-COVID disorders and pre-COVID diseases, may take into account restoration of his/her capabilities and adaptability.

Deferred medical needs of patients with cardiovascular diseases and diabetes mellitus:

2. The patients with arterial hypertension demonstrate features of hypertensive macro- and microangiopathy in the form of artery geometric changes, atherosclerotic vascular disease and increasing of vascular resistance. Damaging of target-organs of patients with non-controlled arterial hypertension is manifested in endothelial function disorders, cerebrovascular responsiveness disorders, vascular tone increase and microalbuminuria. So it is important to prescribe to patients with arterial

hypertension target-organ protective drugs together with antihypertensive medicines. If we add L-arginine to patients with arterial hypertension at the stage of antihypertensive therapy selection, it may improve endothelial function, cerebral and renal blood flow, regeneration of cerebrovascular responsiveness, decrease of vascular tone and microalbuminuria. But only levorotatory arginine has maximum bioavailability and proved clinical effect for protection of target-organs.

3. The researches have demonstrated that particular combination of L-Arginine and L-Carnitine decreases angina symptoms and improves the quality of life of such patients; infusion of L-Arginine decreases arterial tension of patients with arterial hypertension and decreases pulmonary artery pressure of patients with pulmonary hypertension.
4. Patients with diabetes mellitus belong to severe COVID-19 risk population with possible development of post-COVID syndrome, so they have to be in touch with the doctor during self-isolation and quarantine restrictions, as well as they need additional curative measures at all stages of coronaviral infection treatment. The concept of early vascular aging (EVA Syndrome) is characterized by endothelial dysfunction and results in development of early cardiovascular diseases, including coronary heart disease, heart failure, inadequate cerebral blood flow and chronic kidney disease. Early detection of people with high risk ratio (patients with diabetes mellitus, arterial hypertension, LDL, smokers) and drug treatment of endothelial dysfunction may slow down pathologic vascular aging, and so stay or prevent further cardiovascular emergencies. L-arginine, as a predecessor of NO, plays an important role in correction of endothelial dysfunction and stay of person's vascular aging.
5. Better medical care provided by primary health care and primary care ambulatories may decrease the number of cases of hospital admission caused by clinical manifestation of diseases among patients with diabetes mellitus, arterial hypertension, heart failure, COPD, and asthma. Such decrease may both decrease expenses for treatment and load on secondary health care which is focused on treatment of patients with COVID-19.
6. Target-organ affect in the presence of cardiovascular diseases and diabetes mellitus has a vascular nature and associated with endothelium dysfunction. L-arginine, due to its proved positive effects, may be reasonably used as part of comprehensive treatment of patients with arterial hypertension, CHF, diabetes mellitus, atherosclerosis, as far as it helps to restore vascular endothelial function.

Deferred medical needs of patients with neurological diseases:

7. The patient with chronic cerebrovascular diseases needs lifestyle modification; improvement of blood flow in the system of small cerebral vessels; long-term use of antioxidants and Nootropic drugs. Pathogenetic scheme is reasonable: levorotatory arginine to protect target-organs with maximum bioavailability and proved clinical efficiency; citicoline and electrolytes to improve cognitive, sensitive and motor functions of the CNS.
8. After COVID-19 the patients with neurological complications may have permanent low level of inflammation in the brain, decrease in blood flow to the brain or autoimmune condition, or combination of such abnormalities. All patients affected with COVID-19 have to be examined to detect any neurological symptoms that may be evident during the active phase of infection or within several weeks after COVID-19. It is recommended to use syndromic and pathogenetic approach to rehabilitation of patients focused on cure of underlying systemic inflammation and endothelitis. Edaravone decreases systemic inflammation and improves brain metabolism through decreasing of neuroinflammation, BBB penetrance, reduction of microglia activation, oxidative stressing, improvement of endothelial function, autoregulation of cerebral blood flow.
9. Use of solutions based on xylitol with vivid energetic effect takes an important place in the complex of pathogenetically substantiated infusion therapy.

Anemia unit:

10. The iron deficiency in case of heart failure is a powerful independent factor for survival rate decrease and deterioration of patients' functional capabilities even if they have no anemia.
11. Iron (III) hydroxide sucrose complex has to be chosen for correction of iron deficiency of patients in the in-patient and out-patient institutions, as far as it has maximum bioavailability, works twice as fast as oral and injection iron preparations, and has better safety profile.
12. It doesn't make sense to prescribe oral and injection iron preparations to patients as far as they have too many side effects and low compliance.

Chronic lung diseases unit:

13. In the period before pandemic low control of lung diseases was observed in the developed countries. For example, just 45% of patients undergoing asthma therapy have a good control of symptoms; in case of COPD this share is equal to 36%-64%. During pandemic the patients were deprived of tertiary health care as a result of psychological and emotional pressure, changed recommendations, distribution of unreasoned information and lack of access to specialized doctors. So any opportunities to achieve asymptomatic asthma and COPD course become very important.

Let's distinguish 3 main directions:

- Medicinal drugs. Combination of budesonide / formoterol for treatment of asthma, formoterol for treatment of COPD has advantages in treatment efficiency and it is demonstrated in global recommendations.
 - Delivery device has an impact on control of symptoms almost on the same level with medicinal drugs. So the device has to be easy and convenient to use, has to ensure 100% medicine dose delivery. The Easyhaler inhaler meets such criteria.
 - To develop high liability to treatment thanks to convenient inhaler and budget-friendly value of medicinal drugs.
14. In spite of systemic nature of changes caused by COVID, respiratory system failure plays an important role in pathogenesis and disease clinical picture. The key task is to find method of treatment, to prevent disease progression and to minimize residual variations (of the respiratory system in particular). Some countries that have described clinical characteristics of patients with COVID-19 have mentioned lack of increase in the incidence of asthma and COPD. It was noticed that patients at risk who used ICS before hospital admission demonstrated 50% decrease of ARDS. Invitro data assume role of ICS in inhibition of corona virus (SARS-CoV-2) replication in infected epithelial cells. Early use of inhaled glucocorticosteroids in high doses in case of COVID-19, for example, fluticasone propionate in containers through nebulizer, helps to prevent disease progression, to decrease risk of hospital admission and to accelerate the recovery.

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