

Air pollution, noise, and arterial hypertension – global risk. Environmental hypertensiology 2

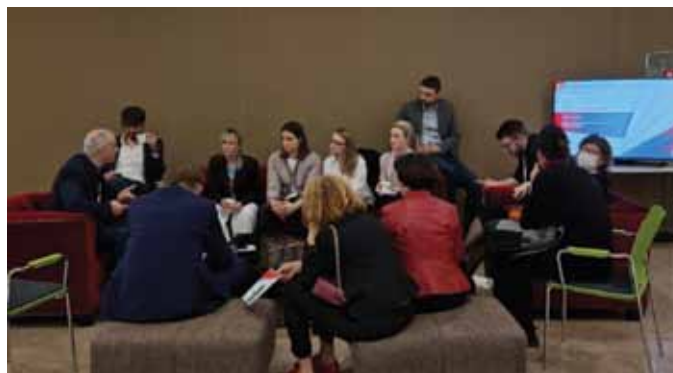
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On 11th and 12th of May 2023, Croatian Hypertension League organized the second international symposium of environmental hypertensiology. This year the topic was air pollution, noise, and blood pressure- global risk. Like last year's hybrid symposium on climate changes, this hybrid meeting was also under the auspice of the Croatian Academy of Science and Arts. More than 250 participants learned and enjoyed in lectures given by leading experts in hypertensiology, cardiology, nephrology, diabetology, lipidology, endocrinology, pulmonology, neurology, public health, epidemiology, paediatrics, kinesiologist, nutritious, but also meteorology and chemistry.

First session was reserved for chemists, biometeorologist, and climatologist to explain how they measure air pollution, what are the types of pollution particles and how does the network of air pollution stations across the country works. The topics then moved to epidemiology and colleagues from National Public Health Institute gave data on all-cause and cardiovascular morbidity and mortality related to the air pollution. From public health data and epidemiology, symposium continued from genetics and endothelial function, to hypertension, and extended on every aspect of cardiorenovascular continuum including early vascular aging. Particularly interest was a talk on air pollution and telomers given by leading world geriatrician Athanase Benetos from France. Before section on cardiovascular diseases, we heard what the link of air pollution and noise with obesity is, as well with metabolic syndrome, liver disease, diabetes, renal function, chronic kidney disease, and thyroid gland disease. It was interesting to learn how air pollution and noise affect diseased people on haemodialysis, and after kidney and heart transplantation. Second day started with neurology. Interesting talks were given on how air pollution and noise contribute to cognitive impairment, stroke, obstructive sleep apnoea and dementia. Air pollution and climate changes change pollen allergen season and impact severity and duration of asthmatic lung disease as well as chronic obstructive lung disease. It is easily assumed how air pollution and noise can contribute to lung cancer prevalence and outcomes. Last section was very interesting organized by a multidisciplinary team of experts comprised from nutritionist, kinesiologist, mental health specialist and public health experts. Air pollution and climate changes impact the quality of our food, disrupt physical activity benefits one can engage. Thus, a broader view on individual and public approach is urgently needed to grasp to this ongoing change and try to ameliorate further impact on human health. In total, 42 presentations were delivered, with a lot of brisk discussion after every section. The symposium ended with round table were both public health experts met with clinicians and authority representative from Min-

istry of Economy and Sustainable Development. With this symposium which is continuation of the last years on climate changes, the Croatian Hypertension League and Croatian Academy of Science and Arts are showing their primacy and leadership in general wellbeing and health preservation. It is our hope that this would contribute to increasing awareness of general population, physicians, and other experts how we all are responsible. We wish that our government not only to continue with all activities already on the way, but to be even more active in decreasing effects of air pollution on the health of our nation. Beside individual effort and physicians' awareness of air pollution and noise impact on health, it is up to government officials to ensure better multidisciplinary teams of environmental specialist, urban planners, and biometeorologist who will plan our environment and sustainable living. Mitigation and adaptation to air pollution and climate changes, as well to noise, should be more developed without any delay. The whole symposium is recorded, and all lectures and discussions are available at the educational web site of the Croatian Hypertension League and the Croatian Society for Hypertension, so all who would like to learn are welcome.



Meet the expert during the coffee breaks.

Controversies in Hypertension, Cardiovascular Prevention and Nephrology

This year's Controversies in hypertension, cardiovascular prevention and nephrology organized by Croatian Hypertension League and Croatian Hypertension Society were held a hybrid meeting on 12th and 13th May. The well accepted form of pre-recorded high-quality presentations and live on-site moderated discussion were very well attended with 250 on-site participants and 420 virtual attendees. First session started with life-style modification panel with multidisciplinary experts (neurologist, diabetologist, nutritionists, kinesiologist, psychologist). Round table broad one of many controversies: is for women longevity more important to lose weight or to be physically active? First day finished with panel discussion on treatment of metabolic aspects in hypertension (dyslipidaemias, hyperuricemia, diabetes). The second day started with panel discussion on always difficult to answer question in hypertensiology and nephrology like - how to treat supine hypertension, can antihypertensives aggravate or lead to depression, how to treat frail and elderly, or when to stop or avoid corticosteroids in glomerular disease. The highlight of the second day was brisk round table on harm reduction in smokers. Some controversie issues were mentioned, and raised lively discussion on whether smoking should be classified as a disease, and to be treated accordingly, how to prevent children to start smoking any nicotine product, how to avoid misleading premise that there are unharmlful nicotine products etc. In every Controversies there is a section on hypertension in pregnancy and hypertension and metabolic disturbances in children and adolescents. These are vulnerable populations and knowledge on how to diagnose and treat hypertension is always lacking. Following was mixed panel discussion on themes from cardiology aspect of hypertension and emerging new subspeciality of hypertensiology: oncohypertensiology. Oncology treatment thanks to new and *smart* drugs is getting more and more successful, and oncology survivors now live longer and beyond their oncology path. Unfortunately, most of new oncology drugs affect heart and kidney, and have side effect- hypertension. It will take a subspecialist to understand and properly treat this growing high cardiovascular risk population. New Croatian consensus paper on renal denervation was launched. Whit this paper Croatia in a head of our European peers and ahead of forthcoming new European hypertension guidelines. The second day was rounded with panel discussion on supplement prescription, where nutritionist and pharmacists show how much their expertise and input are necessary in multidisciplinary team treating hypertensive patient. Nevertheless, every clinician must be knowing which supplement and OTC drug its patient is using, as well how to give proper advice on these products. Sections organized during the coffee breaks - Meet the expert- are venue where usually younger colleagues can speak to expert in certain field and to ask questions in more informal surrounding. Meet the expert coffee

breaks are very popular. Controversies ended on Sunday morning with two round tables; one on COVID-19 vaccines side effects and second round table with controversie question in renal replacement therapy: home haemodialysis vs. peritoneal dialysis. All pre-recorded presentation are available on <https://e/hdh.emed.hr/kontroverze-2023> and are free for interested health care providers to broad their understanding of complex and diversly aspects of hypertension and associative disorders.



Lectures and panel discussion