

The Symposium – Anthrax and African Swine Fever in Croatia

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The symposium entitled Anthrax and African Swine Fever in Croatia was held on 13th of October 2023 in the Library of Croatian Academy of Sciences and Arts (CASA) in Zagreb. It was organized by the Committee of Animal and Comparative Pathology of the Department of Medical Sciences of CASA. It was aimed to present the epidemiological aspects of the newest outbreaks of anthrax and African swine fever in Croatia.

At the beginning of the Symposium, the participants were welcomed by academician Vida Demarin, the secretary of the Department of Medical Sciences of CASA, and academician Josip Madić, who was the chairman of the Organizing Committee.

Epidemic of anthrax appeared in summer of 2022 in cattle and humans in the Lonjsko Polje Nature Park. Its causative agent, *Bacillus anthracis*, is one of the most likely agents to be used for bioterrorism.

African swine fever (ASF) occurred in June 2023 in Vukovar-Srijem County and is still lasting. Before that, the disease was diagnosed in the neighboring countries of Serbia and Bosnia and Herzegovina. It is obvious that the measures adopted by the veterinary administration to eradicate it, are not effective enough or have not been applied by the pig owners. Because of this, the disease continues to spread in Croatia and in mid-October it also affected pigs in some villages of the Osijek-Baranja County.

The first part of the Symposium was dedicated to the epidemic of anthrax. The first presentation under the title Bioterrorism - Threat and Challenges was presented by Prof. Alemka Markotić, MD, PhD, from The University Hospital for Infectious Diseases „Dr. Fran Mihaljević“, Zagreb. She emphasized that the strength of biological weapons lies in their ability to cause high morbidity among the affected population and a high mortality



rate. Prof. Ljubo Barbić, DVM, PhD, from the Department of Microbiology and Infectious Diseases with Clinic of the Faculty of Veterinary Medicine University of Zagreb referred to the role of the veterinary profession in ensuring food safety and monitoring and controlling zoonoses. In his lecture entitled Veterinary Medicine from Anthrax to African Swine Fever, he stated that the work of the veterinary profession is difficult in conditions of mistrust of animal owners and certain parts of society in scientific truth and institutions, which unfortunately is becoming a feature of modern society.

Epizootiological characteristics of anthrax in the area of the Lonjsko polje Nature Park in 2022 were discussed by Tihana Miškić, DVM, from the Veterinary and Food Safety Directorate, Ministry of Agriculture of the Republic of Croatia. Anthrax was proven in cattle and horses in areas of common pastures Repušnica, Osekovo, Gračenica and Veliko Svinjičko in the area of the Nature park Lonjsko polje in Sisak-Moslavina County.

Details of diagnostic methods and prevention of anthrax in animals were presented by Dr. Gordan Kompes, DVM, PhD, from the Department of Bacteriology and Parasitology, Laboratory for General Bacteriology and Mycology of the Croatian Veterinary Institute.

At the end of the first part of the Symposium, we heard about anthrax epidemics in humans in Croatia with special reference to the last epidemic in the Lonjsko polje Nature Park in 2022. The epidemic in humans began on July 13, and ended on August 19. A total 17 people fell ill with the skin form of anthrax. Sonja Pajtlar, MD, spec. epid., epidemiologist of the Public Health Institute of Sisak-Moslavina County spoke about it.

After the lectures of the first part of the Symposium were presented, an extensive discussion developed, primarily about the way the causative agent was transmitted to humans.



The second part of the Symposium was intended to present the African Swine Fever epizootic in Croatia. Prof. Lorena Jemeršić, DVM, PhD, from the Department of Virology of the Croatian Veterinary Institute, Zagreb, emphasized that ASF remains one of the most damaging ongoing panzootics which is significant threat to pig production worldwide. No vaccine or treatment is available against ASF. Prevention is based on early detection and strict biosecurity measures that can prevent further spread of the disease and minimize contamination of environment and the likelihood of infection in wild boar. Her lecture was followed by the lecture of Prof. Dean Konjević, DVM, PhD, Department of Veterinary Economics and Epidemiology, Faculty of Veterinary Medicine, University of Zagreb. He explained in detail the role of wild boar in the epidemiology of ASF. He showed the trend in wild boar abundance and the influence of population density, environmental factors, hunting activities, poaching and carcasses in hunting grounds on the spread and maintenance of ASF virus.

In the summary of her presentation Ljupka Maltar, DVM, PhD, from the Veterinary and Food Safety Directorate, Ministry of Agriculture of the Republic of Croatia, described the measures for the control and eradication of ASF in Croatia. On June 26, 2023, the disease was confirmed for the first time in the territory of the Republic of Croatia, in the Vukovar-Srijem County, from a sample of domestic pigs taken from two farms on June 23, 2023, in the area of the municipality of Drenovci, Posavski Podgajci settlement, near the border with Bosnia and Herzegovina. From that day until September 28, 2023, a total of 909 outbreaks were confirmed in locations of 19 municipalities of Vukovar-Srijem County and two municipalities in Brod-Posavina County.

In the discussion at the end of the Symposium, many questions were raised regarding the failure to stop the spread and eradication of the ASF in Croatia.