PREVENTION OF ANTHRAX EPIZOOTIC APPEARANCE IN UNCONTROLLED RISK AREAS USING PATHOGENS EXOTOXINS /

Zaviriuha H.A., Yanenko U.M., Zaviriuha A.I.

DNU "State Center for Innovative Biotechnologies", Kyiv

The paper presents the data on Anthrax monitoring in uncontrolled areas of the eastern region of Ukraine – Donetsk and Lugansk Oblast. 451 Anthrax outbreaks were found during the period from 1979 to 2014 in Ukraine. Adding these data of the period from 1920 to 1978, in generally 24,951 outbreaks of Anthrax were recorded that were identified for 95 years. Leaders in the number of outbreaks are: Lugansk (36 outbreaks), Chernigiv (34 outbreaks) Donetsk (30 outbreaks), Odessa and Khmelnytskyi (29 outbreaks) Oblast. Over the next 15 years (1999–2014) the largest number of SNP was registered in 1999 – 19, in 2001 – 14 and in 2000 – 11. In a future reduction was marked in their number, and in 2002 it did not exceed 4. In that case our country is still considered unfavorable for Anthrax.

There are 47 Anthrax old graves (total -80) in Donetsk Oblast and in Luhansk Oblast -142 (total -275). Number is weighty. This is a concern of veterinary medicine specialists, especially for forecasting epizootic situation on Anthrax.

The article shows the characteristics of an experimental vaccine preparation "Antrakol", respectively the main component of which is exotoxin – protective antigen of B. anthracis strain K–79Z.

The vaccine "Antrakol" was successfully tested in experimental farms and has high performance. The authors recommend to inject animals that are prohibited to immunize with live spore vaccine against Anthrax is particularly necessary to apply it to animals and people in uncontrolled areas (ATO) to provide with the Anthrax welfare.

Key words: Anthrax, monitoring, vaccine, preventative properties.