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A MULTIFACETED BATTLE AGAINST ANTHRAX IN EASTERN PART OF TURKEY IN WHERE ANTHRAX IS ENDEMIC

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Anthrax is a primarily infectious disease of herbivores and humans have its share of zoonotic trait, as well. Anthrax was endemic in Kars which is the center of animal breeding of the country. Human anthrax was predominantly reported at a record level (10.21%) in Kars among other studied region in Turkey between 1995 and 2005. However, animal anthrax ranged from 8.8 to 91% between the year 1993 and 2002. OIE reports show a fluctuating course of animal anthrax between 2005 and 2017 and a three-year peak was observed in Kars Region between 2012 and 2014. The number of epidemics visibly decreased in the last three years both in animal and humans as a reflection of increased vaccination and infection reporting systems, strict protection and compliance regulations and well-managed outbreaks. Eventually, human anthrax is now thin on the ground.

Beside the success of governance on anthrax by constituting the strict politics we think that our efforts on regional anthrax with studying almost all aspects of the disease has contributed to regression of disease at least creating social awareness. In addition, we continue collaborations with official authorities such as the Ministry of Agriculture and the Ministry of Health, Turkey. The studies are mostly focused in ecology, epidemiology, prevention and decontamination of Anthrax and recently bacteriophages are incorporated as the natural enemy of *Bacillus anthracis*. Furthermore, a special effort is being spent to prevent anthrax cases in community by providing the education to some authorities such as physician, veterinarian, butcher and farmers and to trace outbreak by visiting several times of lots of people in countryside who caught or exposed to anthrax. Beside the multinational network project has been completed on anthrax environmentally decontamination (AEDNet), a mutation based analytic method (SNPs) is in the development stage to trace epidemic in Kars region, Turkey. Furthermore, a NATO funded multi-participated strategic work is now planning to remediate the side effects when a bioterrorist attack with anthrax will be occurred and both mutation-introducing characterization and advanced decontamination methods will be integrated to this struggle program.

In the near future, we are planning to apply to the Turkish Government for an Anthrax Reference Centre in Kars and thus will make more contributions to human and animal welfare throughout the Kars and Turkey.

Keywords: anthrax, human, animal, multifaceted battle, Turkey

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CAENORHABDITIS ELEGANS PREDATION ON *BACILLUS ANTHRACIS*: DECONTAMINATION OF SPORE CONTAMINATED SOIL WITH GERMINANTS AND NEMATODES

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Remediation of *Bacillus anthracis*-contaminated soil is challenging and approaches to reduce overall spore levels in environmentally contaminated soil or after intentional release of the infectious disease agent in a safe, low-cost manner are needed.