

was a significant drop of outbreaks and case incidences. The accrued experience evidenced the need of an information system available at National level providing efficient timely communications and data sharing for appropriate actions. A WEBGIS developed by the Italian EIA National Reference Centre (NRCEIA) was tested in 2015 at Regional level (Latium) to: ensure real time tracking of EIA case location; trigger immediate alerts on new cases and outbreaks; allow risk evaluation and management of equid movements; provide practical tools for Veterinary Officers for surveillance, control or emergency actions in infected areas. The WEBGIS was also specifically oriented as a practical instrument for outbreak management. The Geo-portal was developed using open-source geographical layers (Base map aeriels, topography, streets and municipalities borders) and programming softwares with the geodatabase automatically fed using official sources of structured data relative to farm registration and location, confirmed cases and officially notified outbreaks through dedicated web-services, providing an interactive, unified SOAP interface display to users with daily updating. By accessing to CRAIE-WEBGIS webpage (<http://195.45.99.77/craie/>), the Local, Regional and National Veterinary Authorities can generate and display the list and location of the confirmed cases and the notified outbreaks. Details on outbreak status (i.e. from suspected to confirmed or to extinguished, species and number of individuals involved) are daily tracked and available. Controlling the retrospective geodatabase, it is possible to discriminate incident from recurrent cases and outbreaks as also activate the display of the areas at risk around the active outbreaks, allowing the automatic listing of all the farms registered within a defined surveillance buffer/area, where targeted serological and syndromic surveillance must be put in place. Further to the dynamic tools, the CRAIE-WEBGIS also releases periodic static reports (lists and maps) relative to outbreak characteristics and location, allowing a timely supervision of the actions undertaken and a preliminary evaluation of the epidemiological trends. The CRAIE-WEBGIS experience in Latium contributed to reduce uncertainty, provide timely and effective actions, raising the biosecurity level of the equid population. Its extension at a national level will support the country surveillance, data collection and outbreak tracking, allowing the derived epidemiological data to be used for risk assessment and management and timely evidence-based interventions.

211

Undetermined cause of mortality in horses in Argentina

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As in other mammals, horses can be affected by several fungal infections. However, only a small number of these are known to cause clinical disease and death. Multiple species of fungus are ubiquitous in the environment, and thus horses can acquire the fungal spores by inhalation, ingestion or contact (skin and mucosa). In addition, there is a predisposition for disease development related with the environmental conditions and the host's

immune conditions. The aim of this report is to describe the features and clinical findings in a series of equine mortalities occurred in a Thoroughbred and Quarter Mile horse breeding farm located in Cañuelas, Buenos Aires Province, Argentina. The affected population consisted of 20 nursing foals (between 3 to 6 months of age). They were allowed to graze freely on natural pasture, without supplementation of dry (hay) or other commercial equine feed. Due to the excessive rainfall, the animals were frequently moved over different paddocks for food access. During February-April 2014, 7 foals and 1 mare showed hyperthermia, depression, edema, profuse diarrhea, colic, serous nasal secretion and mucous membrane congestion. These clinical signs were followed by the development of ulcerative lesions with posterior necrosis of nasal septum mucosa. Even though all the affected animals received analgesic, antipyretic, antidiarrheal and different antibiotics treatment, no improvement was obtained. The course of the disease was variable between 2 and 45 days. Ultrasonography revealed the presence of *Rhodococcus equi* (*R. equi*)-like lesions (abscesses) in the lungs in 6 out of the 7 affected foals. Nasal turbinates swabs (NS), tracheal washes (TW), whole blood to obtain peripheral blood mononuclear cells (PMBC) and serum samples were collected for microbiological studies (virology, bacteriology and mycology). Exhaustive necropsy, tissue samples collection and histopathology and microbiology studies were performed. No virus was detected in NS or PBMC. No antibodies against *Burkholderia mallei* (Glanders) were identified. At necropsy, the most consistent lesions were ulcers and necrosis of nasal septum; similar lesions but of lesser extent were also found in the tongue, palate and along the gastrointestinal tract. Lesions compatibles with those induced by *R. equi* were not observed in the lung. Histopathology revealed severe acute multifocal necrotizing interstitial pneumonia; severe chronic multifocal necrotizing rhinitis with vasculitis and intralesional fungal hyphae in nasal turbinates, and mild to severe suppurative inflammation with marked lymphoid depletion in colon. The fungi in the nasal turbinates were morphologically consistent with Zygomycetes (*Mucor*, *Basidiobolus*, *Conidiobolus*) or Oomycetes (*Pythium* sp.). Unfortunately, the etiology of the disease and death of these horses could not be determined; the presence of fungus-like microorganisms in the lesions could be a result of secondary infection due to intestinal injury.

166

Anthrax in a horse and post-exposure interventions

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Anthrax is a highly pathogenic zoonotic disease caused by *Bacillus anthracis*, a Gram positive spore-forming bacillus. Although it primarily affects herbivores, other mammals, including humans, can be affected. Animals may have at least three clinical presentations, hyperacute, acute, and subacute or chronic; horses almost always develop the acute form, generally manifesting throatlatch swelling, fever, dyspnoea, rapid onset of septicemia, disseminated intravascular coagulation and shock. Bleeding from natural orifices is common in most species. The importance in public health lies in its zoonotic potential. Three forms of presentation have been described in humans: cutaneous, respiratory and digestive, depending on the route of exposure. Lethality in humans is extremely high without rapid detection and treatment. In December 2013, an adult crossbred work horse, belonging to persons of extremely limited resources, presented at the Universidad Austral de Chile's Veterinary Hospital due to sudden