



AFRICAN HORSE SICKNESS: A POSSIBLE CAUSE OF HORSE FATALITIES IN AL-BAHA, SOUTHWESTERN OF THE KINGDOM OF SAUDI ARABIA

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ABSTRACT

This is a case report study of suspected African Horse Sickness in Al-Baha Region, Southwestern of Saudi Arabia. The suspected cases for African Horse Sickness disease were observed in late August 2014. The most affected horses showed clinical signs of severe pain, congestion of mucus membranes, profuse foam oozing of the nose, recumbency, difficult breath and ultimately death. However, the most likely cause of such clinical problems is the African Horse Sickness. Therefore, the Ministry of Agriculture in Saudi Arabia and Veterinary Authorities in Al-Baha Region must pay full attention to make a reliable surveillance and investigate the outbreak zone in the Al-Baha Region and other areas surrounding.

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INTRODUCTION

Background

African Horse Sickness (AHS) is a highly contagious and deadly disease. It is very common disease in horses, mules, and donkeys. It is usually caused by nine serotypes of the genus Orbivirus.¹⁻² AHS is indirectly infectious disease that is transmitted by insect vectors. It is considered as a major health threat for horses in North Africa and Southern Europe as a result of trade of infected horses.¹⁻² It is an endemic viral disease of equids in sub-Saharan Africa and probably Yemen in the Arabian Peninsula, with a high mortality rate in some outbreaks.¹⁻³ Horses are the most common susceptible host, and the fatality rate may reach 90%, followed by mules 50% and donkeys 10%. AHS may be manifested in four different forms, the pulmonary form, the cardiac form, the mild fever form, and mixed form.⁴ Furthermore, the highest mortality rate can be found in the pulmonary form, while the cardiac form has less mortality rate between 50 to 70%. The survival rate of the mild fever form is 100%.⁴ However, there is no specific treatment for AHS, and the most important preventive measures is to control an outbreak in the endemic area through vector control, vaccination, and quarantine. The infected horses are usually slaughtered by veterinary authorities, and uninfected

horses should be monitored and vaccinated against the virus. The insecticides can be used to destroy the habitat of the insect vectors. Other equidae and wildlife species have been associated with complications of the epidemiology of the disease. Finally, it is known that there are no cases have been diagnosed or detected in the Kingdom of Saudi Arabia, which is not far from Yemen and the African border. Therefore, it is not impossible to have an African Horse Sickness in the southern region of Saudi Arabia which is bordering Yemen as the weather conditions and the nature of the land are very similar.

Case Presentation

A five-year-old horse farm that is located in Al-Baha Region, Southwestern of Saudi Arabia, was visited in late October 2014 after severe episode. Based on interviewing the farm owner, in August 2014, several horses showed clinical signs of severe pain, congestion of mucus membranes, profuse foam oozing of the nose, recumbency, difficult breath and ultimately death. The course of the disease averaged 2 days. The farm had no previous history of this episode. Several animals including camels, sheep were housed on the same farm and shared feeding and water sources however no obvious similar clinical problems were noticed among them. Five horses showed the clinical disease and all horses were ultimately lost. A second visit was made to the farm after one year and indicated that the three remaining horses were healthy but were relocated to a different facility out the Al-Baha Region.

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CONCLUSION

To the best of our knowledge, the most likely cause of such clinical problems is the African Horse Sickness virus. The presence of other equidea and wildlife species in the wild in Southwestern of Saudi Arabia exhibits major complications to the problem. The Ministry of Agriculture in Saudi Arabia and Veterinary Authorities in Al-Baha Region must pay full attention to make a reliable surveillance and investigate the outbreak zone in the Al-Baha Region and other areas surrounding.

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