Emerging diseases in a changing reindeer herding system

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**ABSTRACT:**

Supplementary feeding and corralling have become more common in Sweden and Norway due to pasture fragmentation and climate change. A less traditional reindeer herding system with increased gathering, corralling, handling and transport of reindeer will also increase stress and animal-to-animal contact, and the occurrence of suboptimal hygienic conditions, all contributing to a heightened risk of disease outbreaks, challenging animal welfare and the herder’s economy. Disease outbreaks of oral necrobacillosis, contagious ecthyma and eye infections in semi-domesticated reindeer have been investigated clinically and with serological (ELISA) and molecular (PCR) assays. Results indicated that infections with *Fusobacterium* spp. (necrobacillosis), Orf virus (ORFV, contagious ecthyma), and cervid herpesvirus 2 (CvHV2) and *Chlamydia* spp. (eye infections) are present in the Fennoscandian reindeer herds, causing disease outbreaks. While, simultaneous presence of multiple agents has been registered. There are clear indications that these and other emerging and re-emerging infectious diseases are associated with the changing herding conditions and their prevalence may hence increase over time, with the subsequent risks for reindeer herds and herders. Furthermore, the risk of zoonotic and inter-species transmission of some of these pathogens exist. Preventive measures must be taken while working with affected animals to avoid exposure of herders, veterinarians and other people, as well as the infection of other susceptible species in contact with the affected herds, such as other cervid species or domestic animals.