



Disease processes identified in road killed wild carnivores

Introduction: Wildlife diseases have been considered increasingly important due to their potential effect upon human health, veterinary medicine, wildlife, and conservation biology. Since wild carnivores are elusive animals, the occurrence of disease in these species has been typically investigated by identification of pathological processes in carcasses that are found incidentally.

Material and methods: This study was conducted in wild carnivores found death on the roads in Portugal, from 2009 to 2012 (n=72), representing 3 families and 6 different species. Post mortem examination was performed and multiple tissues were fixed in 10% neutral buffered formalin, processed for routine paraffin embedding and stained with hematoxylin and eosin for histopathological examination.

Results: Lung lesions were the most prevalent finding (15/72, 20.8%), particularly in fox (*Vulpes vulpes*, 8/49, 16.3%) and Egyptian mongooses (*Herpestes ichneumon*, 7/15, 46.6%). Six foxes showed lesions of parasitic pneumonia suggestive of *Crenosoma vulpis* or *Angiostrongylus vasorum* infestation. In Egyptian mongooses adiaspiromycosis due to *Emmonsia crescens* were the most common lung lesions (4/15, 26.6%). Chronic interstitial nephritis was registered in 10/72 (13.8%) animals, while in 6/72 (8.3%) macrophage lymphadenitis was observed, both conditions affecting members of the *Canidae* and *Mustelidae*.

Conclusion: According to our study, parasitic and mycotic lung pneumonias are amongst the most prevalent lesions in wild carnivores. Although parasites and fungus may often be regarded as a burden that has little or no impact on the animals, our findings suggest that they can severely affect animal health by the magnitude of their lesions and by making turning the host more susceptible to other infectious agents.