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Introduction

Equine sarcoidosis (ES) is a rare but emergent disease of unknown etiology. Body of literature on ES remains limited, especially on the generalized forms associated with hypertrophic osteopathy (HO). This case report is intended to describe clinical and imaging findings of a horse with generalized ES and subsequent HO, potentially secondary to EHV-5, in a poor performing Standardbred racehorse.

Materials and methods

A 6-years-old Standardbred was presented to the veterinary teaching hospital of the Faculty of Veterinary Medicine of the University of Liège for sudden poor performance, loss of appetite and weight, chronic and intermittent fever, facial (Fig. 1) and peripheral multifocal swelling. Poor performance was unexpectedly fast as the horse was still racing and training successfully few weeks before the first symptoms.

Results

The horse underwent diagnostic imaging of head and limbs. Radiography and ultrasonography (Fig. 2) of the head revealed periostitis and regional soft tissue swelling of the maxillary bone. Bilateral marked periostitis with palisade-like appearance involving diaphyseal or metaphyseal region was also identified on distal radius and metatarsal bones (Fig. 4), suggestive of HO. Computed tomography (Fig. 3) excluded dental or sinus abnormalities and confirmed periosteal reactions of the rostral mandible and maxillary bones. Due to the appearance of scaling, crusting and exfoliating lesions during hospitalization, biopsies were performed and revealed granulomatous dermatitis. This finding was consistent with equine sarcoidosis, thus explaining HO. Rapidly declining conditions of the horse led to the decision of euthanasia. Post-mortem examination revealed splenomegaly and several pulmonary nodules. Histopathology on a pool of different organs confirmed severe granulomatous lesions; PCR identified the presence of EHV-5.



Figure 1. Facial swelling was one of the first symptoms described, together with sudden poor performance and loss of appetite and weight.

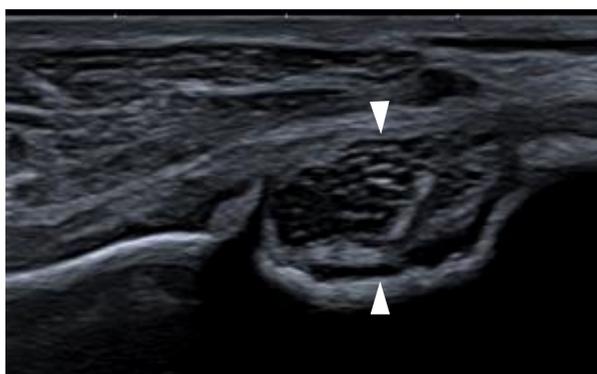


Figure 2. Transverse ultrasonographic images of the right maxillary bone at the level of the infraorbital foramen showing irregular spiculated periosteal bone reaction. Infraorbital nerve is indicated between arrowheads.

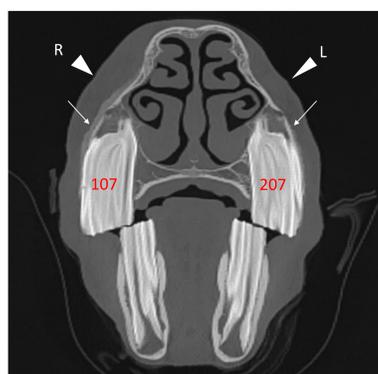


Figure 3. Transverse and sagittal reformatting of computed tomography images of the head in detail algorithm. Arrows: mild and irregularly margined periosteal reaction of the maxillary bones (left) and rostral mandible (right); arrowheads: adjacent subcutaneous swelling.

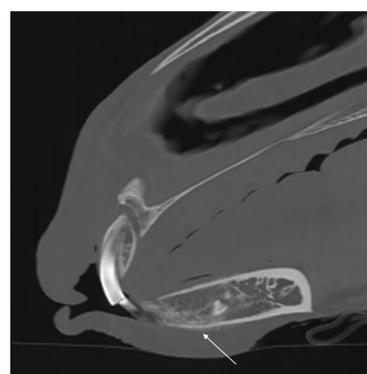


Figure 4. Latero-medial radiograph of the left carpus. Marked periosteal bone production with palisade-like appearance is present at the dorso-distal diaphysis and metaphysis of the radius (arrow). Milder periosteal reaction is also visible caudally (arrowhead). Concomitant local soft-tissue swelling is present.

Discussion and conclusions

ES, even in its generalized form, is an emergent disease that should be taken into consideration in case of unspecific clinical signs combining poor performance, weight loss, facial/distal limb bone deformities and skin lesions; EHV-5 should be searched for as potential causal pathogen.