A CASE OF MALIGNANT CATARRHAL FEVER IN SARDINIA

Filippo Fiore, Elisabetta Antuofermo, Nicoletta Spissu, Raffaella Cocco, Antonio Leoni, Sergio Coda, Giovanni Cubeddu, Gianpaolo Pintori

Department of Pathology and Veterinary Clinic, Faculty of Veterinary Medicine, Sassari, Italy

Introduction: Malignant catarrhal fever (MCF) is a systemic disease of domestic cattle and other ungulates. The disease usually occurs sporadically, it is reported worldwide and it is characterised by pyrexia, profuse mucopurulent nasal discharge, severe keratoconjunctivitis, corneal opacity and oral lesions. Haemorrhagic enteritis with diarrhoea, exanthematous dermatitis and central nervous disorders may occur occasionally. The disease in cattle is caused by a related gamma herpesvirus type 2 (OHV-2) and the head and eye form is the most common expression of MCF. In Italy 3 cases of MCF have been reported in cattle and one case in bison.

Objective: This work describes the first case in Sardinia of sheep-associated MCF (SA-MCF) with positive serological test for OvHV-2 in a cow.

Material and methods: A 2 years old Holstein Friesian cow coming from a dairy farm that shared pasture and management structures with a dairy sheep farm was admitted to Veterinary Medical Clinic for accurate clinical exams, laboratory tests and fecal exam. The cow's conditions worsened in ten days therefore it was euthanized and submitted to necropsy.

Results and discussion: On detailed clinical examination the subject showed high fever, bilateral corneal opacity with severe keratoconjunctivitis, profuse nasal discharge, exanthema with papules and crusts in muzzle, perineum and teats. Lateral claws of the hindlimbs showed partial detachment of the horn. Gross findings at necropsy were enlargement of several lymph nodes, diffuse vascular congestion in small intestine, numerous ulcerated lesions in colon mucosa, diffuse edema and hemorrhage in cerebral and cerebellar hemispheres. At histopathology the main lesions were lymphocytic vasculitis with fibrinoid necrosis in the muscular layer of the arterioles of several organs such as liver, lungs, kidneys and lymph nodes. The diagnosis was based on the combination of history, clinical signs, histological lesions consistent with lymphocytic vasculitis of various organs together with detection of OvHV-2 antibodies in serum samples using E.L.I.S.A.

Conclusion: Cattle are terminal hosts of the disease that generally leads to the death of the animal, nevertheless several therapeutic treatments are possible. To prevent the infection of other subjects it's necessary to keep sheep and cattle separate especially during lambing time and colostrum intake period, as these periods tend to be critical for the spread of the disease.

Keywords: Cattle, malignant catarrhal fever, head and eye syndrome