

Materials and Methods: Infection with EHV-5 was confirmed by PCR assays, while EHV-5 replication in tissues was demonstrated by using a virus-specific *in situ* hybridization (ISH) assay. Key inflammatory and immune cells, and activation of myofibroblasts and type II pneumocytes were characterized by immunohistochemical staining, while collagen deposition was determined by Masson's trichrome histochemical staining.

Results: When compared with healthy controls, horses with EMPF had prominent myofibroblast activation and type II pneumocyte hyperplasia together with a predominantly CD3+ T lymphocyte and monocyte/macrophage (Iba-1, pan-macrophage/dendritic cell; MAC387, recently infiltrating M1-like pro-inflammatory monocyte/macrophage) cellular infiltrate. When compared with EIPF, horses with EMPF had a two to three folds increase in MAC387 and EHV-5 replicating exclusively within MAC387+ pulmonary alveolar macrophages (PAM), presumably M2-like anti-inflammatory macrophages.

Conclusions: These findings delineate EHV-5 tropism for long-lived, self-renewal PAM accompanied with a T lymphocyte-driven histiocytic response in horses with EMPF that will assist in the development of improved protocols for the diagnosis and control of this disease.

Oral C - 3 : INTRAMURAL CORONARY ARTERIOSCLEROSIS IN BEEF CATTLE REARED UNDER DIFFERENT HOUSING CONDITIONS

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Introduction: Intramural coronary arteriosclerosis has been reported in several species; no systematic studies are available in bovine. Rearing factors could influence the disease development. This study described coronary arteriosclerosis in regularly slaughtered beef cattle reared in different conditions.

Materials and Methods: A total of 15 Piedmontese breed bulls reared in a tied stall housing system (G1), 15 Piedmontese (G2), 15 Blonde d'Aquitaine (from France) (G3) and 15 cross-breed (from Ireland) (G4) reared in pen under different housing conditions and management practice were considered. Blood parameters and dROMs were determined 3 weeks after the arrival of the animals and after 5 months. Hair 20β-dihydrocortisol was evaluated at the slaughter. Samples of interventricular septum, papillary muscles, ventricular free walls and atria were submitted to histological evaluation (Haematoxylin & Eosin, Weigert VanGieson and AlcianPAS stains). Arteriosclerotic changes were classified using a semi-quantitative scoring system. GraphPad Prism® software was used to perform statistical analysis (P < 0.05).

Results: Hematochemical parameters, dROMs and 20β-dihydrocortisol revealed that G2 and G3 groups were less stressed than G1 and G4. Likewise, interventricular septum and papillary muscles were significantly more affected (P < 0.001). G4 showed more severe arteriosclerotic changes than others (P < 0.001). A statistically significant association between G1 and G4 and the total number of affected vessels was observed (P < 0.05). Independently of the group, Anitschkow cells were detected in the 83% of the pathological vessels.

Conclusions: Based on these findings, a potential relationship between the development of intramural coronary arteriosclerosis and housing conditions-induced stress cannot be excluded.

Oral C - 4 : NEW INSIGHTS INTO THE PATHOGENESIS OF VASCULITIS IN malignant catarrhal fever

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Introduction: Lymphoproliferative vasculitis has been described as the main histological feature of malignant catarrhal fever (MCF), with virus infected T lymphocytes as the dominant cells. Deregulation of uninfected cells through infected lymphocytes, and autoreactive immune responses have been speculated as the underlying pathomechanisms.