Infection with porcine circovirus type 2 (PCV2) may be subclinical or lead to the development of porcine circovirus disease (PCVD), which includes the entities of post-weaning multisystemic wasting syndrome (PMWS) and the porcine respiratory disease complex (PRDC). PCV2 infection and PMWS occur in the early post-weaning period and are also recognized in finishing pigs of 12-19 weeks of age. The aim of the present study was to assess the role of PCV2 infection in disease of finishing pigs. Accordingly, the occurrence and tissue distribution of PCV2 was examined in Danish finishing pigs at the time of slaughter. Multiple lymph nodes and the spleen, lungs and kidneys from 136 pigs with PRDC (case group) and 36 pigs without lung lesions (control group) were examined by immunolabelling for the presence of PCV2. Additionally, follicular dendritic cells (FDC) were identified immunohistochemically. One or more tissues of 61% of the pigs were positive for PCV2 antigen. Up to 78% of the pigs had mild lymphoid depletion, indistinct lymphoid follicles and/or histiocytic infiltration of the lymph nodes, but these lesions were not associated with PCV2. No association was found between the presence of lung or kidney lesions and detection of PCV2. Three distinct patterns of cellular PCV2 antigen labelling were recognized: (1) labelling of cells with stellate morphology and reticular distribution, (2) labelling of isolated non-epithelial cells, and (3) epithelial labelling. The reticular pattern was most common and localized to the centres of lymphoid follicles, corresponding to the morphology and distribution of FDCs. This observation may be interpreted to suggest that PCV2 may interact with FDCs to cause depletion of B lymphocytes. Alternatively, the FDCs may be a reservoir of infective PCV2 in subclinically infected animals or represent a simple storage site for PCV2 antigen in pigs that have recovered from infection.
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