

LYMPH NODES' HISTOLOGICAL STATUS OF PIGS WITH PORCINE CIRCOVIRUS-2

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INTRODUCTION: The effect of porcine circovirus-2 (PCV2) on the pig immune system are not yet fully know, but it has been reported that the main target cells for PCV2 replication are the monocyte/macrophage lineage cells. Aim of study is to investigate lymph nodes' histological sight of naturally infected pigs with PCV2. Study includes previous results about this investigation.

MATERIALS AND METHODS: Investigation included three death pigs from one herd. The main clinical signs for animal selection criteria were lose of weight, respiratory diseases and diarrhea. Blood serum and lymph nodes samples (*lnn. inguinales superficiales sinister at dexter, traheobronchales* and *jejunales*) have been collected from each pig. Samples from pigs have been taken no longer those 12 hours after animal death.

Blood samples were serologically tested for circovirus-2 antibody by enzyme-linked immunosorbent assay (Synbiotics, Serelisa PCV2 Ab Mono Blocking kit). The lymph nodes' tissues were fixed in 10% formalin approximately 24 hours, processed embedded in paraffin, sectioned at 4 µm thickness, stained with Haematoxylin&Eosin. Lymph nodes have been investigated for PCV2 by immunohistochemistry with PCV2 monoclonal antibody (Ingenasa 36A9). Lymphoid tissues were evaluated of lymphoid depletion ranging, replacement of follicles ranging (Opriessnig et al., 2004) and PCV2 antigen presences from 0 (normal) to 3 (severe).

RESULTS: All pigs were seropositive to the PCV2. All lymph nodes of one pig showed similar sight: follicles not visible, hard lymphoid depletion, multinuclear gigantic cells near the sinuses and PCV2 antigen presences near the sinuses with evaluation score 1.

Second pig's lymph nodes had different histological sight. Follicles of *lnn. inguinales superficiales* did not visible, follicles of *lnn. traheobronchales* and *lnn. jejunales* did poor visible. Multinuclear gigantic cells have been presence only in *lnn. inguinales superficiales* and *lnn. jejunales*. Large histiocytic cells proliferation was found in *lnn. traheobronchales*. However evaluation of PCV2 antigen is score 3 and similar for all lymph nodes.

Third pig's evaluation for PCV2 antigen and histological sight is different between lymph nodes. Follicles of *lnn. inguinales superficiales* did not visible (score 3), follicles of *lnn. traheobronchales* and *lnn. jejunales* did visible. Multinuclear gigantic cells have not been presence in third pig's lymph nodes.

CONCLUSION: Pigs' lymph nodes have different histological sight between animals and lymph nodes and have specific changes (lymphoid depletion, multinuclear gigantic cells etc.), which have been reported in other authors study. On the histological status could to impact the amount of PCV2 and its distribution in lymph nodes. This investigation is in process.