

Multifocal Interstitial Nephritis of Pigs Slaughtered in Jeju

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Introduction

Gross lesions of multifocal interstitial nephritis, often called 'white spotted kidney', can be caused by various bacterial or viral hematogenous infections [1, 2]. The purpose of this study was to determine whether there is an association between these lesions in slaughter pigs and the causative agents in Jeju.

Materials and Methods

In order to investigate the prevalence and pattern of multifocal interstitial nephritis, one kidney was taken from each of 160 pigs at slaughter in Jeju for 3 months from November 2002. Kidneys were examined for gross, histopathological lesions and PCR/RT-PCR for porcine circovirus type 2 (PCV-2), porcine parvovirus (PPV), *Leptospira* species and porcine reproductive and respiratory syndrome virus (PRRSV).

Results

Grossly, 137 kidneys (85.6%) had lesions characterized by the presence of the scattered white dots and spots. Histopathologically, multifocal interstitial nephritis that was classified into 4 grades such as, no lesions, mild lesions, moderate lesions and severe chronic lesions with fibrosis, were observed in 159 cases (99.4%). According to PCR/RT-PCR methods, PCV-2 were detected in 73.8%, PPV were detected in 66.9%. Both PCV-2 and PPV were detected in 52.5%. The histopathologic mean score were significantly different ($P < 0.05$) between the cases of PCV-2 single infection and the cases of mixed infection with PCV-2 and PPV.

Discussion

These results revealed that PCV-2 and PPV were

major infectious agents for interstitial nephritis in slaughtered pigs, Jeju. And the histopathologic lesions were more severe in the case co-infected with PCV-2 and PPV.

References

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2. Baker, T. F., Mcewen, S. A., Prescott, J. F. and Meek, A. H. Can. J. Vet. Res. 1989, 53, 290 - 294.