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Study on canine herpesvirus infection
— on papular lesions observed on vestibulum vaginae —

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The purpose of this study was to elucidate the significance of papular lesions which were observed on the mucosa of the vestibulum vaginae in dogs infected with canine herpesvirus (CHV).

Nine pregnant bitches which had previously undergone experimental transplacental transmission of CHV (Group I) and two dogs as controls and six dogs which were injected with CHV into the mucosa of the vestibule (Group II), were used. Vestibule and lumbosacral ganglia were collected at necropsy and examined histopathologically. In addition, dogs in Group II were examined by immunohistochemical staining and polymerase chain reaction (PCR) on paraffin embedded sections. Necropsies were carried out at 1.5 to 3.5 months for Group I, 8 days for Group II-A and 8 weeks for Group II-B after CHV injection.

On gross examination, papular lesions were found on the vestibular mucosa and histopathologically there was lymphofollicular hyperplasia. In several lumbosacral ganglia there was a mild

inflammatory change characterized by focal or diffuse accumulation of mononuclear cells and satellite cells around neurons, perivascular cuffing of mononuclear cells and neuronophagia. In two control dogs, these lesions were not detected in the vestibule and lumbosacral ganglia.

Immunohistochemical examination of tissues which were found to have lesions histopathologically, was negative to the CHV specific antigen.

On PCR examination, CHV genome was detected from vestibule and several lumbosacral ganglia for Group II-A, but not for Group II-B.

These results suggested that : (1) CHV was associated with formation of lymphofollicular hyperplasia observed on vestibulum vaginae in CHV infected dogs, (2) CHV could be one of causative agents in the formation of lymphofollicular hyperplasia, (3) it is significant that lymphofollicular hyperplasia plays an important role in the immunological response of vestibular mucosa against CHV. In addition, it is suggested that CHV may exist in lumbosacral ganglia after infection with CHV.