



HOKKAIDO UNIVERSITY

Title	THE EFFECT OF THYMECTOMY ON THE PATHOGENESIS OF MAREK'S DISEASE : SUPPRESSION OF THE DEVELOPMENT OF INITIAL LESIONS AND ABSENCE OF AGE-RELATED RESISTANCE
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The authors' summaries of their theses are as follows :

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OF MAREK'S DISEASE
— SUPPRESSION OF THE DEVELOPMENT OF INITIAL LESIONS
AND ABSENCE OF AGE-RELATED RESISTANCE —**

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The effect of neonatal thymectomy on the development of Marek's disease (MD) in chickens, especially on the age-related resistance, was studied histopathologically. Line M White Leghorn chickens were neonatally thymectomized or sham-operated. After evaluation of thymus dependent functional deficiency by graft-versus-host reactivity and the phytohemagglutinin skin test, the chickens were inoculated intra-abdominally with Marek's disease virus (MDV-80 plaque-forming units) at 2 or 8 weeks old and autopsied at 1, 3, 5, and 7 weeks post inoculation with MDV. The results were as follows: 1) Initial cytolytic lesions in the lymphoid tissues were observed at 1 week post inoculation in all chickens except those in the thymectomized group inoculated at 2 weeks old. Since the chickens in the thymectomized group lacked lymphocytes in the thymus-dependent areas, the development of the initial cytolytic lesions might be thymus-dependent; 2) Although chickens in the sham-operated group inoculated at 8 weeks old had MD initial cytolytic lesions indicating susceptibility to MDV infection, they were resistant to the development of lymphoid tumors, neuropathy and clinical signs of paralysis thereafter. The chickens in the thymectomized group inoculated at 8 weeks old, however, were not resistant to the development of the MD lesions. Furthermore, these chickens showed neural degeneration, such as axonal degeneration and demyelination, more frequently than those of the sham-operated group at the same age.