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which is EMA, and the other of which is LMA ; and 3) LMA is closely related to a virus envelope antigen.

## THE EFFECT OF BURSECTOMY ON THE PATHOGENESIS OF MAREK'S DISEASE

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The effect of bursectomy on the development of Marek's disease in chickens (White Leghorn, Line-M, without maternal antibody for MDV) was studied histopathologically.

Two experiments were designed, and divided into two groups, which consisted of untreated and bursectomized groups. In experiment I, 19 untreated and 28 bursectomized chickens were examined at 2, 3, 5, 7, 9 and 12 weeks old. In experiment II, 55 chickens including 28 bursectomized ones were inoculated with MDV at two weeks old.

In experiment I, the neonatal bursectomized chickens showed several morphological and functional changes in comparison with the untreated chickens. The results were as follows :

- 1) Histopathologically, severe depletion of lymphocytes in the bursa-dependent areas and aplasia of the germinal centers in the spleen were observed.
- 2) There was a lack of antibody synthesis against *Salmonella pullorum*.
- 3) There was no reduction of phytohemagglutinin skin reaction observed.

In experiment II, chickens were examined at 1, 3, 5, 7 and 10 weeks post inoculation with MDV. The results were as follows :

- 1) Initial cytolytic lesions in the lymphoid tissues were not observed in the bursectomized group.
- 2) Both bursectomized and untreated groups showed a high and almost same frequency of MD tumor development in the various organs and tissues.

Consequently, it is suggested that the function of the bursa of Fabricius is not essential for the tumorigenesis of Marek's disease.