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**PATHOMORPHOLOGICAL OBSERVATIONS ON CHICKENS  
INOCULATED WITH JM-V MAREK'S  
DISEASE CELLS**

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In order to clarify the morphological characteristics of the tumorous lesions in the chickens (White Leghorn, Line M) inoculated with JM-V Marek's disease cells, light and electron microscopical observations were carried out (Group A).

Furthermore, the protective effects by the herpesvirus of the turkey against JM-V challenge (Group B) were confirmed with the control group (Group C) and morphological changes in chickens Groups B & C were also investigated. The results were as follows:

The peak of tumor development was on the 8th and 9th day after-inoculation (Groups A & C). The highest incidence and the greatest severity of the tumorous lesions were found in the liver, spleen, lungs and peritoneum (inoculated sites) (Groups A & C). The mode of extension of tumor cells was intravascular and had the characteristics of leukemia. The tumor cells had morphological characteristics of lymphoblasts which had large nucleoli and homogeneous distribution of polysomes in the cytoplasm, and they had often nuclear pockets. In Group B, lymphocytic infiltration and germinal centers were conspicuous in the lymphoid organs, whereas in Groups A and C, lymphocytes were depleted and germinal centers were hardly seen. In the scanning electron microscopy of RPL-1 cells, various structures of microvilli were found on the surface of the tumor cells.