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The present experiment was carried out to study the pathogenesis of Newcastle disease, Newcastle disease virus (NDV) antigens and genes were detected in various organs from NDV inoculated chickens by RT-PCR and immunohistochemistry.

At 48 hpi, clinical findings of the affected chickens were open-mouth breathing, conjunctivitis, watery diarrhea and edema around the eye and neck. At 72 hpi, chickens showed muscular tremor, paralysis of the legs and wings, and coma.

Histopathological results consist of multi-focal necrosis with hemorrhages in lymphoid aggregates of the intestinal tracts, necrosis of the lymphoid tissues, neuronal degeneration and necrosis, and perivascular cuffing.

Using RT-PCR, virus genes were detected in the spleen and proventriculus at 48 hpi, and in the brain at 60 hpi. Immunohistochemically, NDV antigens were localized mainly in the cytoplasm of lymphocytes and macrophages. Virus antigens were detected in the spleen, thymus, cecal tonsil, proventriculus, trachea and lungs at 12 hours post- inoculation (hpi). Those results indicated, Kyojeongwon virus was replicated and spreading may be performed within 12 hpi.

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P#16

Pathological Findings on Xenograft of Fibrosarcoma in Nude Mice Preinjected with Newcastle Disease Virus

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This research focuses on how Newcastle Disease Virus (NDV) preinjected group of NDV affects the occurrence of tumor and its mechanism. Fibrosarcoma cells were grafted on female athymic BALB/c(nude) mice in order to observe the effects. The growth rate, microscopic change, distribution of TNF- α in tumor tissues, and apoptosis by using TUNEL stain were observed. At the same time, by using ELISA, the blood concentration of TNF- α was comparatively measured. As a result of the experiment, in comparison to the control group, gross observation of the occurrence of tumor in NDV preinjected groups were made 20 days after.

Histological test indicated that the NDV preinjected group, unlike the control group, cell degradation and necrotic degeneration as well as inhibition of cell proliferation were observed.

Immunohistochemistry indicated that, unlike the control group, there was a significant increase of the positive result of TNF- α and apoptosis in the tumor tissue section of NDV preinjected group. ELISA also indicated higher blood concentration of TNF- α in NDV preinjected group than the

control group.

As a result of this study, occurrence of tumor and growth inhibition were observed in mice with preinjected NDV. Also, TNF- α and apoptosis turns out to be heavily associated with the mechanism of tumor occurrence inhibition.

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P#17

Metastatic Sertoli Cell Tumor in a Dog

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Metastatic sertoli cell tumor is diagnosed in a 5-year-old male Shih tzu dog. Clinical signs of the dog were anorexia, urinary incontinence, constipation, anemia and epistaxis. The dog also had unilateral cryptorchid testis in the abdomen. Several thoracic and abdominal masses and displacement of the adjacent organs were identified by radiographic examinations. Grossly, cryptorchid testis and other multiple masses had enlarged varying diameter from 4 to 7 cm in the thoracic and abdominal cavities. On cut surface of testis, firm and well demarcated milky white mass was

irregularly lobulated by white fibrous bands. Histologically, the tumor cells had replaced normal seminiferous tubules. Irregular tubular structures separated by fibrous stroma were lined by layers of fusiform or polyhedral cells. Nuclei were round to oval shapes with a moderate degree of pleomorphism. Some areas were more irregular in their size and shape. Histologic features of metastatic foci in other tissues were consistent with primary tumor lesion. In our best knowledge, this is a first report for metastatic testicular sertoli cell tumor associated with cryptorchidism in a dog in Korea.

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Transitional Carcinoma in the Nasal Cavity of Dog

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Transitional carcinoma in the nasal cavity was diagnosed in a 10-year-old female Yorkshire Terrier. The presenting clinical signs were epistaxis, nasal discharge and maxillary swelling. The nasal mass approximately 2.5X4 cm in size was identified by radiograph Surgical treatment