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A case of lymphosarcoma is reported in a 5-year-old male Maltese dog that presented with general enlarged lymph node. The dog showed depression, blindness, arrhythmia and hematuria. Grossly, all of the affected lymph nodes were enlarged and soft to rubbery. On cut section, these lymph nodes bulged and necrotic foci were presented in the masses. The spleen was enlarged with two round masses in the head part. Histopathologically, all lymph nodes were replaced by diffuse sheets of monomorphic cells. Massive infiltration of neoplastic cells was noted in the lung, liver, spleen, kidney, eye, skin and muscle. The tumor cells expressed CD3 antigen, indicating T-cell origin using immunohistochemistry. Based on the histopathology and immunohistochemistry, this case is diagnosed as multicentric lymphosarcoma in a Maltese dog.

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Polyserositis in Suckling Piglets Caused by *Escherichia Coli*

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Escherichia (E.) coli was isolated in five 2 to 4 weeks old suckling piglets with fibrinous and purulent polyserositis. The clinical signs included depression, rough hair coat, and emaciation. Grossly, atypical or thread-like bright yellow to greenish yellow material attached to the surfaces of lung, heart, liver, intestine and subarachnoid space. Severe diffuse fibrinous adhesion were observed in thoracic and peritoneal cavity. Except one piglet, creamy bright yellow exudate was found in articular capsule with mild proliferated synovial membrane. Histopathologic examination revealed diffuse fibrino-purulent polyserositis in the pleura, epicardium, peritonium, meninges and articular capsule with Gram negative rod-shape bacterial colony. *E coli* was isolated from the swabs of serosal lesion and confirmed as serogroup O1 on the basis of biochemical and immunological tests. In conclusion, this is the first report of *E coli* serogroup O1 infection associated with polyserositis in suckling piglets.

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Incidental Case of *Sarcocystis* in *Cynomolgus* Monkey

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Intramuscular cysts were found spontaneously in a 3-year-old cynomolgus monkey used for 6-week toxicity study. The animal belonged to the control group. It didn't exhibit any morphological and behavioral defects, and had abnormal lesions at necropsy. In the histopathology, there were no specific lesions except that the two cysts, wrapped by thin wall, were located in the muscle fiber of femoral muscle and full of dense substances. There was no inflammatory reaction around cysts. They are considered to be sarcocystis, in view of its typical morphology and location.

Key words : Sarcocystis, Cynomolgus monkey, Toxicity study

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Quickly Simple Biodosimetry to Estimate the Absorbed Dose of Victims in Accidental Multi-Casualties

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Quantification of the biologically relevant dose is required to establish cause and effect between radiation dose and important biological outcomes. Most biodosimetric studies of unanticipated radiation exposure fail to establish cause and effect because researchers have not been able to construct a valid quantification of dose for many victims in multi-casualties. However, there is no effective technique meets all the requirements of an ideal biodosimetry.

To evaluate if the apoptosis induction assay could be used to estimate an early dose prediction of the whole body or a part of it after accidental radiation exposure within 12 h, we examined apoptotic lymphocytes after ⁶⁰Co -rays in the range of 0.25 to 1Gy.

The incidence of apoptotic cell death rose steeply at very low doses up to 1Gy, and radiation at all doses trigger rapid changes in peripheral lymphocytes. These data suggest that apoptosis may also play an important role in homeostasis of radiosensitive target organ by removing damaged cells.

The curve of dose-effect relationship for the data of apoptotic lymphocytes was obtained by the linear-quadratic model. The dose-response curves were linear-quadratic for -rays, and a significant dose-response