

The average PCNA index did not have significant differences with histopathological characteristics and grading and MFS stain but have significant differences with sex of affected dogs and tumor diameter size ($p < 0.05$). Therefore AgNORs and PCNA indices might be able to be used as a prognostic factor for oral melanoma in dogs. Our results revealed Melan A protein expression was detected in malignant melanoma 50.77%(33/65). The results did not have significant differences between Melan A protein expression and histopathological classification, clinical data, average AgNORs and PCNA indices. Melan A expression could be a useful marker for melanocytic derivation diagnosis in dogs. The study indicated that the expression of Melan A protein in combination with AgNORs and PCNA indices could be used to provide the prognosis of oral melanoma in dogs.

Key words: Canine oral melanoma, AgNORs index, PCNA index

[Session II] #9

A Case of Lung Filariasis and Lymphoma In A Sumatran Tiger (*Panthera tigris sumatrae*)*

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A case of lung Filariasis and lymphoma in a Sumatran tiger (*Panthera tigris sumatrae*) was investigated. The tiger was captured from the National Park in Sumatra Island. She was about 4 year-old with the body weight of 73 kg. The tiger was received medical treatment for improving the condition, but when the standard anesthesia was performed she died with no clinical problem detected. The necropsy was performed by the veterinary health officer in the field. The organs were sent to the Division of Veterinary Pathology, Department of Veterinary Clinic, Reproduction & Pathology, Faculty of Veterinary Medicine, Bogor Agricultural University (IPB) and processed for the routine histopathological observation. Unfortunately, the gross finding report was not sent to our laboratory, therefore we do not have any information of the gross findings.

Histopathologically, there were an emphysema, congestion, haemorrhages and oedema in the lung. Cysts of worm parasites were common found in all part of the lung. Rectangular microscopic mass with color brown in the middle and red in the periphery were common found inside the blood vessel as well as in the alveoli. These materials were PAS negative. In some part of the lung there were an accumulation of lymphoid tumor cells, small and uniform in size. Congestion and cell degeneration to necrotic were also detected in the liver. The rectangular microscopic mass similar as found in the lung was also noticed in some part of the liver. In the kidney, there were

accumulations of lymphoid tumor cells, small and uniform in size same as found in the lung. The cells were infiltrated to the surrounding tissue and around the glomeruli. Deposit materials of blue crystal in the tube lumen were found in several areas. Some kidney tubules were degenerated to necrotic. Necrotic areas in some parts of spleen were also noticed. Most lymph nodes were congested. There were no histopathological lesion in the pancreas, ovary and uterus.

Based on all these findings mention above, we diagnosed that the tiger was suffered from lymphoma and parasites infection (Filariosis) probably due to larvae migrant.

[Session III] #10

The Occurrence of Neoplastic Diseases in Long Evans Rats of a 2-yr Feeding Study

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In Taiwan, toxicologic pathology task work in safety assessment for preclinical trial drug safety investigation or in toxicity study/ carcinogenicity bioassay for chemical and environmental issues is rather young. It has been a little bit more than a decade since the inception of this field. The current demanding

of safety assessment is primarily due to recent growth of a demand for research and development (R&D) in herbal medicinal products and health foods primarily that led to start business and founding of contract research organizations (CRO) on the island. The safety assessment trials, however, are primarily stagnated in acute and short-term subchronic toxicity study under current trend of business. Studies involving medicinal, agricultural and environmental chemicals are fairly few but are coming slowly. In 2002, the federal sector in the Ministry of Economic Affairs (MOEA) launched a campaign to encourage R&D interesting for improving and strengthening capability in small and medium-sized industrials. One big concern is CRO capability in performing chronic toxicity/ carcinogenicity preclinical trial that needs long term performs up to 2 years under barrier system with SPF lab animals per Standard Operating Procedure (SOP). This is also a step toward GLP level and greater credibility. The work is big Greenseasons Biotech Co., a private and one of the two major CROs on Taiwan accepted and performed this challenge by running a 2-year study with Long Evans (LE) and Wistar(WI) rats. The project was partial financially supported by the MOAE. The present report presents the occurrence of neoplasm in Long Evans rats with the 2-yr exposure period.

The study was conducted in 190 LE male and female LE rats starting at the age of 8 weeks. Ten rats in each sex were fed for 28-, 90-, 180-days, or 1-yr on exposure (yoe), 15 each for 1.5-yr, and 40 each for 2-yr. A total of 56 male and female rats