

## CSVP 374 Diagnosis

Date: Nov 8, 2019

Time: 12 : 00~16 : 00

Place: NCHU

病理小講堂(12:00~13:00)：豬場常見疾病及類症鑑別 (游能凱獸醫師)

本次會議組織病理切片資訊：

<http://140.120.114.107/slidecenter.php?id=459>

Case 1. CSVP 2019-3055 (CW19-039, GIVP NCHU, Z.Y. Lin, Y.C. Chang, J.W. Liao, H.Y. Chiou)

Leopard cat, female, adult. The patient was found both hind limbs trapped in lasso trap, and transferred to the Wildlife First Aid Station of the Endemic Species Research Institute for medical treatment on 17th July, 2019. The patient was euthanatized because the amputation of both hind limbs was evaluated.

Morphological diagnosis:

1. Bronchitis, granulomatous, chronic-active, multifocal, severe, with intralesional adult *Paragonimus* sp. and eggs, lungs
2. Trematodes characterized by encysting in pairs in the lungs of mammals

Laboratory examinations:

PCR: 99.15% identical with *paragonimus westermani* (+)

Etiological Dx.

*paragonimus westermani* infection in leopard cat

Case 2. CSVP 2019-3056 (NTU2019-636, NTU GIMCP, Y.H. Chen and W.T. Li)  
Masked Palm Civet (*Paguma larvata*), male, sub-adult, was found dead on the trail of zoo. Obvious subcutaneous emphysema locating around the thoracic, back and the base of tail was noticed. Grossly, the lungs were collapsed, and mildly meaty and wet with multifocal emphysemas were noted; on the cut surfaces, there were numerous randomly distributed white to yellow nodules.

1. Thoracic puncture wounds, with secondary pneumothorax and subcutaneous emphysema (gross)→ major cause of death
2. Hemorrhage and edema, locally-extensive with alveolar emphysema and focal atelectasis, lung
3. Fibrocartilaginous/cartilage and fat emboli, lung
4. Bronchopneumonia, granulomatous, multifocal to coalescing, moderate, subacute to chronic, with intralesional nematode parasites, lung

Etiological Dx.

## A Case of Severe Bitten Lesions in a Free-ranging Masked Palm Civet

Case 3. CSVP 2019-3057 (NTU2019-0969, NTU GIMCP, T.W. Lee and W.T. Li)  
Canine, poodle, 13-year-old, male. Exophthalmos of left eye was noted. CT scan showed the left eye was compressed by a retrobulbar mass. Orbitotomy was performed.

Morphological diagnosis:

1. Meningothelial form: This very common pattern is formed by sheets of cells without defined cytoplasmic borders. Cells have elongated to ovoid nuclei and usually a solitary prominent nucleolus with delicate heterochromatin. The cytoplasmic borders are indistinct, but the cytoplasm is abundant and homogeneous.
2. Transitional form: There is a mixture of meningothelial and fibrous patterns in this most common form. There are more syncytial cell clusters or concentric incipient whorls that separate into well-demarcated lobules.
3. Microcystic : The cells are spindle cell shaped with elongated nuclei, and processes are loosely arranged and inter-secting to form small, clear, empty, intra- and extracellular vacuoles or microcysts. These areas can be admixed with other foci of more transitional/fibrous patterns.
4. Psammomatous form: There is a background transitional pattern with predominant whorl formation with overwhelming numbers of psammoma bodies throughout the tumor.
5. Fibrous form: This is very uncommon in the dog. Cells are more spindle-shaped than in the meningothelial subtype and have more elongated nuclei. Cells often form inter-secting bundles or streams, between which are variably dense collagen fibers. This subtype often occurs with the microcystic subtype.

Lab. examined:

IHC: (+): vimentin, S100 (-): CK, GFAP

Etiological Dx.

Orbital Meningioma in a Poodle

Case 4. CSVP 2019-3058 (CM19-1004, Ceva TW, N.K. Yu, Y.H. Lee, W.F. Kwan, and C.W. Chang)

Suckling pigs, 8-day-old. The piglets showed clinical signs of watery diarrhea and vomiting. The morbidity was 40% (50/125), and the mortality was 20% (25/125). Similar signs were observed in sow herds but with lower morbidity.

Morphological diagnosis:

1. Enteritis, viral, moderate, subacute, locally extensive, small intestine

2. Villus atrophy with epithelial cell fusion, moderate, subacute, locally extensive, small intestine
3. Nephrotoxicity, moderate, acute, multifocal, kidney

Lab. examined:

PED: Positive

TGE, Rotavirus: Negative

Etiological Dx.

Porcine epidemic diarrhea in sucking pigs

Case 5. CSVP 2019-3059 ( CD19124, ADDC NCYU, K.Y. Shih, H.C. Kuo, C.L. Chen, Y.C. Su, M.H. Chang, and D.Y. Lo)

Native chickens, 70-day-old, were submitted to ADDC for disease diagnosis. They are suspected neoplastic disease and show clinical signs of emaciation and growth retardation. The daily incidence was 0.4% (60/15,000).

Morphological diagnosis:

1. Heart: Myocarditis, heterophilic, granulomatous, necrotic, locally extensive, chronic, severe, Suspected myelocytic and lymphocytic proliferative tumor, chronic, severe
2. Ventriculus: Ventriculitis, heterophilic, granulomatous, locally extensive, chronic, severe, Suspected myelocytic and lymphocytic proliferative tumor, chronic, severe
3. Colon: Typhlitis, ulcerative, lymphocytic, segmental, chronic, severe with coccidian oocyst
4. Kidney: Nephritis, interstitial, lymphocytic, locally extensive, chronic, severe with nephroblastoma (Embryonic tubules are irregular in shapes and branching, have lumens of various sizes. Lined by single or double-cell layer of cuboidal to low columnar cells with hyperchromatic nuclei and prominent nucleoli. There is interstitial accumulation of some immature cells. Pseudoglomerulus or glomeruloid formed by tuft of lining epithelium that invaginates into the lumen)

Nephroblastoma induced by: BAI-A strain AMV, MAV-2-(N), MAV-2-(O), subgroup J-related strain 111

Etiological Dx.

Suspected Avian Leukosis Virus Infection Result in Nephroblastoma in Native Chicken

Case 6. CSVP 2019-3060 (CP19-0503, ADDC, NCHU, W.Y. Chen, C.L. Ho, and S.C. Ou)

Chicken, layers, 40-week-old. Clinical signs included paleness, green diarrhea, and

decrease in egg production. The cumulative mortality in a week was 0.17%. In necropsy, multiple cysts distributed on the skin and in multiple organs. The diameters of the cysts were 0.1 to 1 millimeter in length. Besides, hepatic hematoma and hemoperitoneum were found.

Morphological diagnosis:

1. Myocarditis, necro-granulomatous, severe, chronic, multifocal, with acute hemorrhage and numerous megaloschizonts, heart
2. Myositis, necro-granulomatous, moderate, chronic, multifocal, with acute hemorrhage and numerous megaloschizonts, skeletal muscle
3. Intraendothelial megaloschizonts and extracellular merozoites, multifocal, mild to severe, brain, liver, spleen, lungs, kidney, ovaries, oviduct, proventriculus, ventriculus, intestines, mesentery, skin
4. Hematoma and necrosis, acute, multifocal to coalescent, severe, liver, lungs, kidney
5. Gametocytes, intracytoplasmic, numerous, etiology consistent with *Leucocytozoon* sp, blood cells

Etiological Dx.

*Leucocytozoonosis* in Layers