

383rd CSVP Contributor Diagnosis

Date: Nov 12, 2021

Time: 12 : 00~16 : 00

Place: NCHU

專題演講(12:00~13:00): 輸出入動物檢疫法規介紹-動物傳染病防治條例及其施行細則篇 (陳聖怡秘書)

本次會議組織病理切片資訊：<http://140.120.114.107/slidecenter.php?id=505>

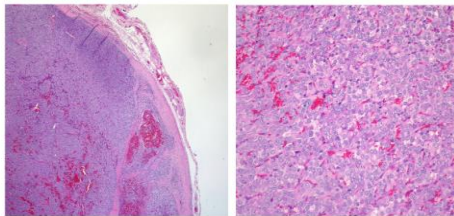
Case 1. CSVP 2021-3110 (NTU2021-2727, NTU GIMCP, Y.H. Huang and W.H. Huang)

Canine, Yorkshire Terrier, 11-year-old, spayed female. Chronic sneezing and upper airway obstruction were noted for years. A mass at the bifurcation of Lt. carotid artery was identified incidentally in Ct image on 2021/07/23. The mass and the Lt. retropharyngeal LN were resected on 2021/09/27. No significant hemodynamic effect was noted as manipulating the mass.

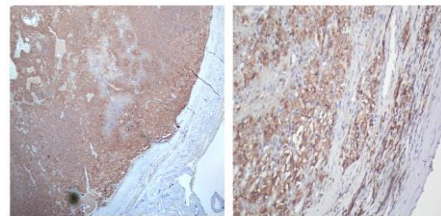
Morphological diagnosis:

1. Location of the mass Bifurcation of Lt. carotid artery.
2. Histopathological Findings: Cytoplasmic granules, Nest of the neoplastic cells separated by delicate fibrovascular septa, Severe anisocytosis, anisokaryosis, giant tumor cell.

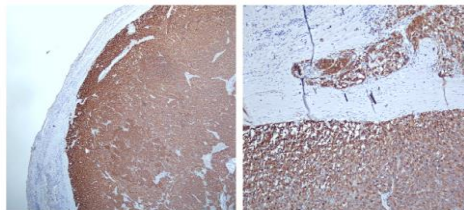
Histopathological Findings-HE stain



Histopathological Findings-IHC(Synaptophysin)



Histopathological Findings-IHC(Chromogranin A)



IHC stain : Synaptophysin, Chromogranin A (positive)

Etiological Dx.:

Neuroendocrine tumor, favor **carotid body carcinoma**, mass at the bifurcation of Lt. carotid artery

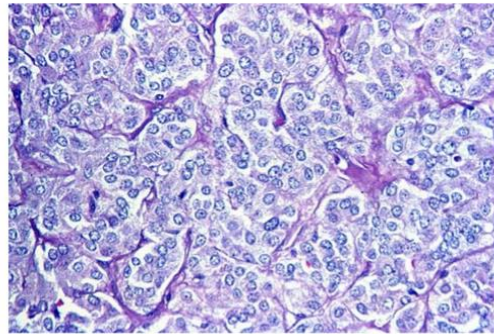
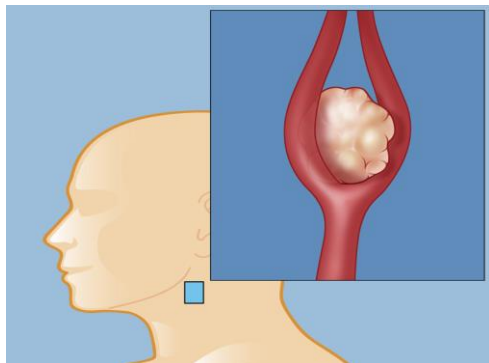


Fig. 4 High power hematoxylin and eosin (*H&E*) stain showing a well-developed “zellballen” growth pattern. The neoplastic cells demonstrate a basophilic granular cytoplasm and round hyperchromatic nuclei with dispersed chromatin

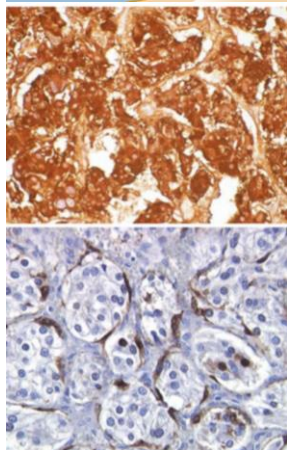


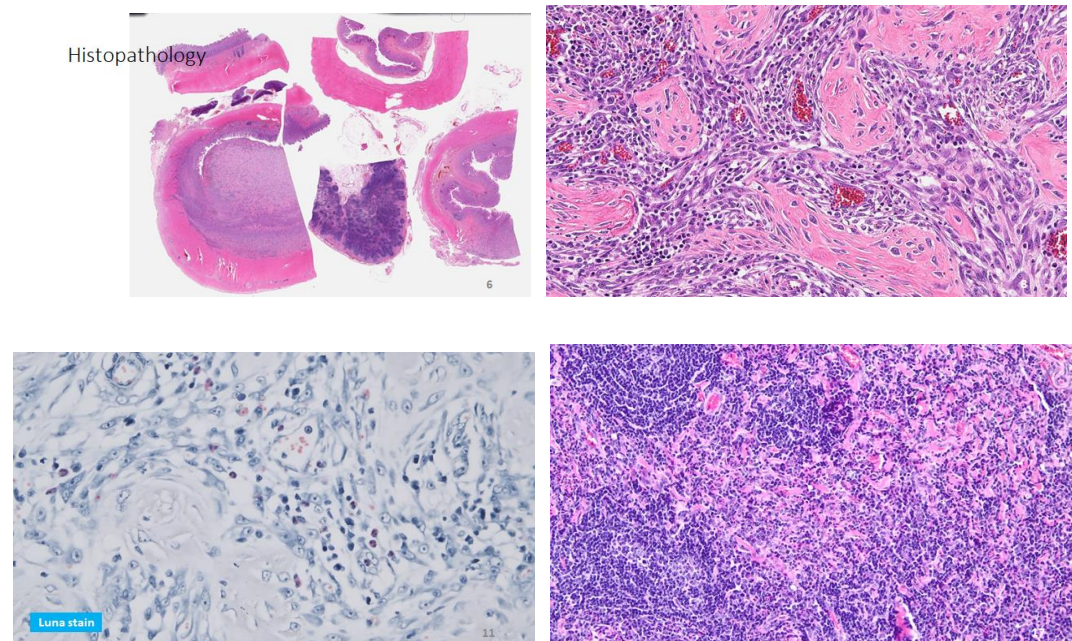
Fig. 5 a Strong reactivity with chromogranin staining by immunohistochemical technique is shown. b The sustentacular cell population at the periphery of the cell nests (“zellballen”) is highlighted by S-100 protein immunohistochemical staining

carotid body tumors, and paragangliomas in general, often referred to as a “zellballen” growth pattern. This refers to a well-developed nested or organoid growth pattern of the tumor cells with an intervening stromal component of delicate fibrovascular tissue and supporting cells or “sustentacular” cells at the periphery of the zellballen or cell nests. The tumor cells (i.e. paraganglioma cells) are predominantly chief cells with round, hyperchromatic nuclei, a dispersed chromatin and abundant granular cytoplasm which may range from eosinophilic to basophilic in color chromogranin and synaptophysin stains by immunohistochemical

Case 2. CSVP 2021-3111 (NTU2021-553, NTU GIMCP, C.F. Lee and Y.C. Chang)
Feline, British Short Hair, 5-year-old, castrated male. Patient's vomiting frequency increased for several days. Under ultrasonography, a homogeneous echogenicity mass was noted at pyloric duodenal junction. The mass was removed by surgical excision. Fine needle aspiration result showed numerous mast cells and eosinophils.

Morphological diagnosis:

1. Pyloric-duodenum mass: Duodenitis, ulcerative, eosinophilic and sclerosing, focally, severe, chronic active, most consistent with feline gastrointestinal eosinophilic sclerosing fibroplasia
2. Lymph node: Eosinophilia, diffuse, moderate to severe, with mast cell infiltration and reactive, lymphoid hyperplasia



Laboratory examinations:

Giemsa stain, Luna stain: eosinophil (+)

Etiological Dx.:

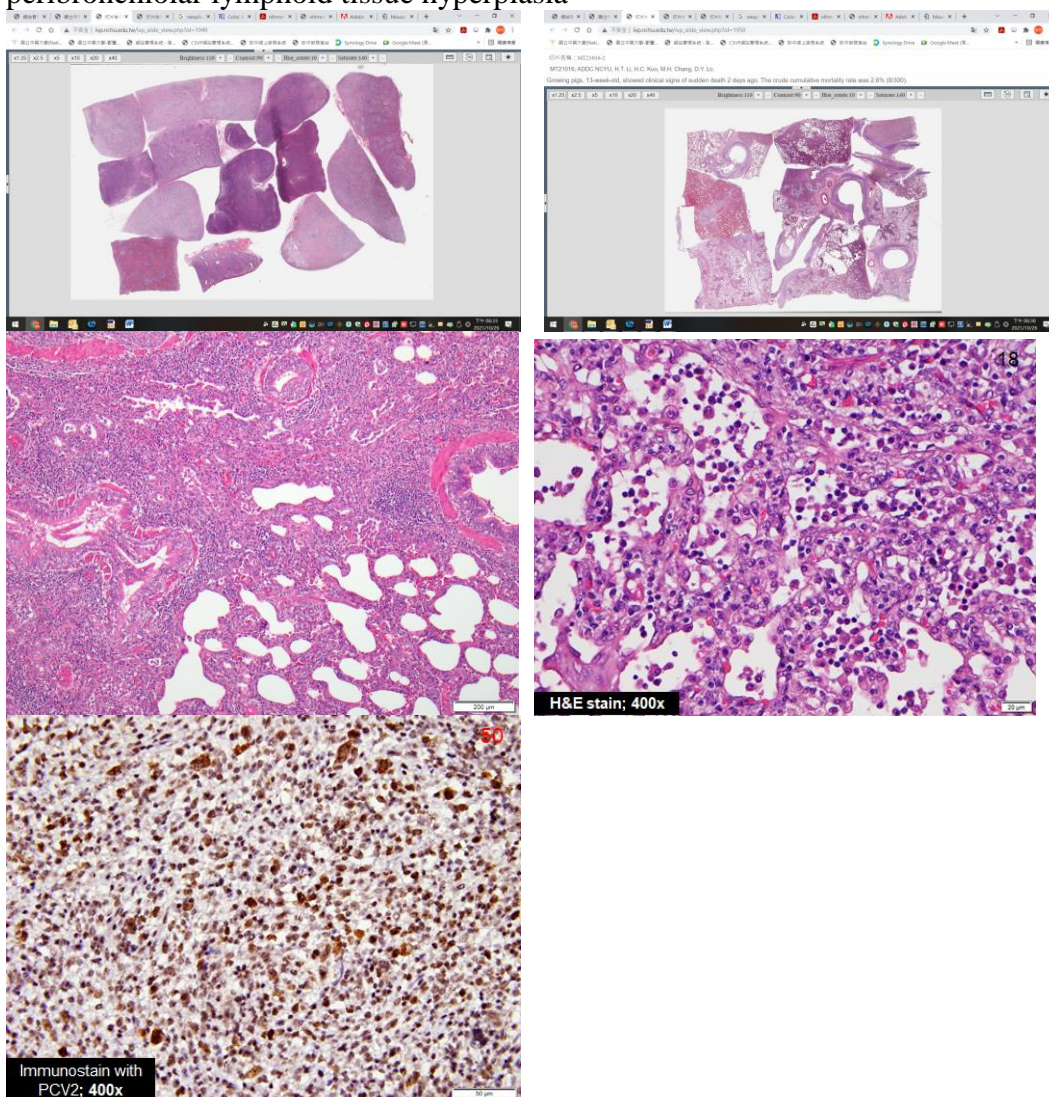
Feline gastrointestinal eosinophilic sclerosing fibroplasia (FGESF)

Case 3. CSVP 2021-3112 (MT21016, ADDC NCYU, H.T. Li, H.C. Kuo, M.H. Chang, D.Y. Lo)

Growing pigs, 13-week-old, showed symptoms of sudden death. The crude cumulative mortality rate was 2.6% (8/300).

Morphological diagnosis:

1. Pneumonia, interstitial, proliferative, necrotizing, lymphohistiocytic, locally-extensive, chronic, severe.
2. Bronchopneumonia, lymphocytic, multifocal, chronic, severe, with peribronchiolar lymphoid tissue hyperplasia



Laboratory examinations:

PRRSV; positive

Mycoplasma hyopneumoniae : negative

Mycoplasma hyorhinis: negative

IHC: Porcine Circovirus Type 2 (+)

Etiological Dx.

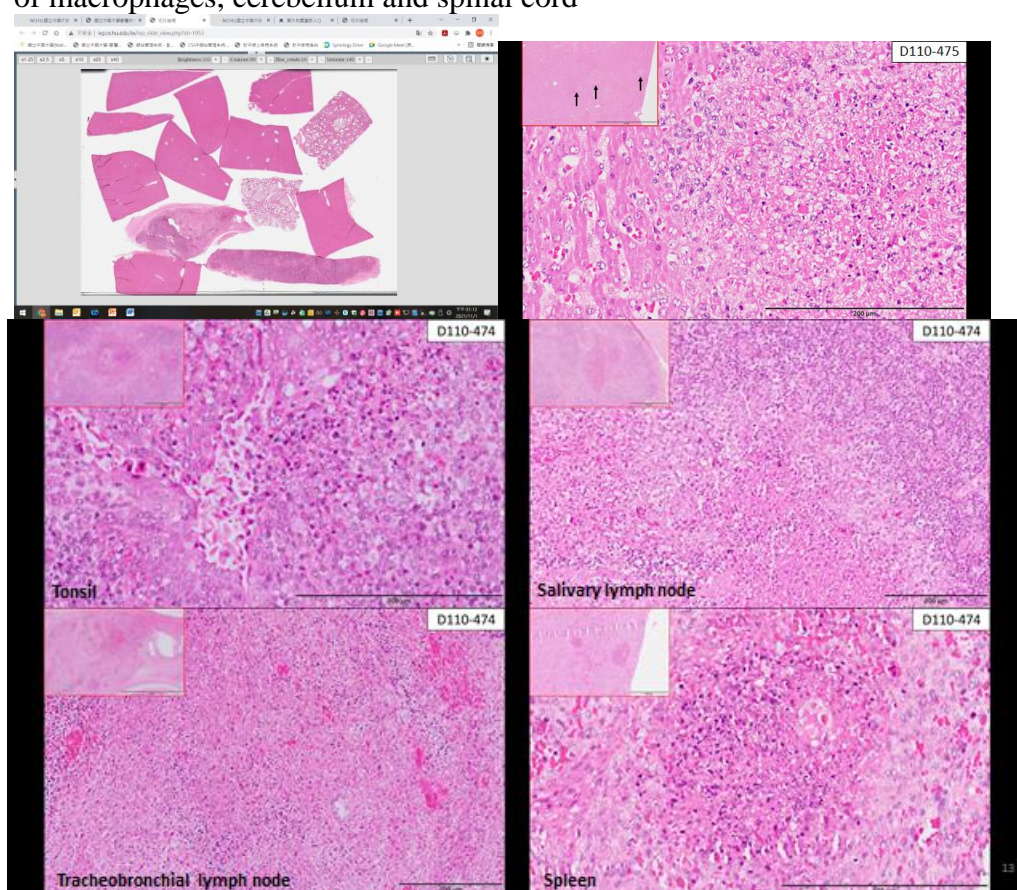
Porcine Circovirus Type 2 Systemic Disease in Growing Pigs

Case 4. CSVP 2021-3113 (D110-474-475, NPUST, H.S. Soon, W.H. Lin, C.N. Lin, and M.T. Chiou)

Suckling pigs, 2~3-week-old suckling pigs. Each batch of suckling pigs in the farrowing house showed signs of weakness after mass vaccination.

Morphological diagnosis:

1. Tonsilitis, necrotizing, multifocal, acute, severe, tonsil
2. Lymphadenitis, necrotizing, multifocal to locally extensive, acute, severe, salivary lymph nodes and tracheobronchial lymph node
3. Hepatitis, necrotizing, multifocal, subacute, moderate to severe, with **eosinophilic IBs** liver
4. Pneumonia, interstitial, diffuse, subacute, moderate, with multifocal mild necrosis, lung
5. Splenitis, necrotizing, multifocal, acute, mild, spleen
6. Encephalomyelitis, non-suppurative, focal, subacute, mild, with **perivascular cuffs** of macrophages, cerebellum and spinal cord



qPCR results: Tonsil, liver, serum showed **PRV: Positive**

Etiological Dx.

Pseudorabies in suckling pigs

Case 5. CSVP 2021-3114 (CM21-01006, ADDC NCHU, P.C. Liu, Y.H. Su, H.Y. Chiou, J.W. Liao, and C.Y. Yang)

Growing pigs, 13 to 14-week-old, showed greasy body, covered with thick skin crusts, panting or watery diarrhea in clinic. The morbidity was about 30% (75/250).

Morphological diagnosis:

1. Epidermatitis and Dermatitis, subacute, severe, multifocal to coalescing, with bacteria clumps, skin.
2. Interstitial pneumonia, subacute, severe, diffuse, with type II pneumocytes hyperplasia, lung.
3. Bronchopneumonia, purulent, subacute, severe, diffuse, lung.
4. Pericarditis, subacute, severe, diffuse, heart.
5. Meningitis, subacute, moderate, diffuse, cerebrum and cerebellum.
6. Adenitis, subacute, severe, diffuse, with lymphoid depletion, lymph node.?



Laboratory examinations:

Bact: *Staphylococcus sp.*, *Salmonella enterica*, *Streptococcus suis*, *Escherichia coli* (+)

PCR: PCV2 (+), MHR(-)

RT-PCR: PRRSV(+)

Etiological Dx.:

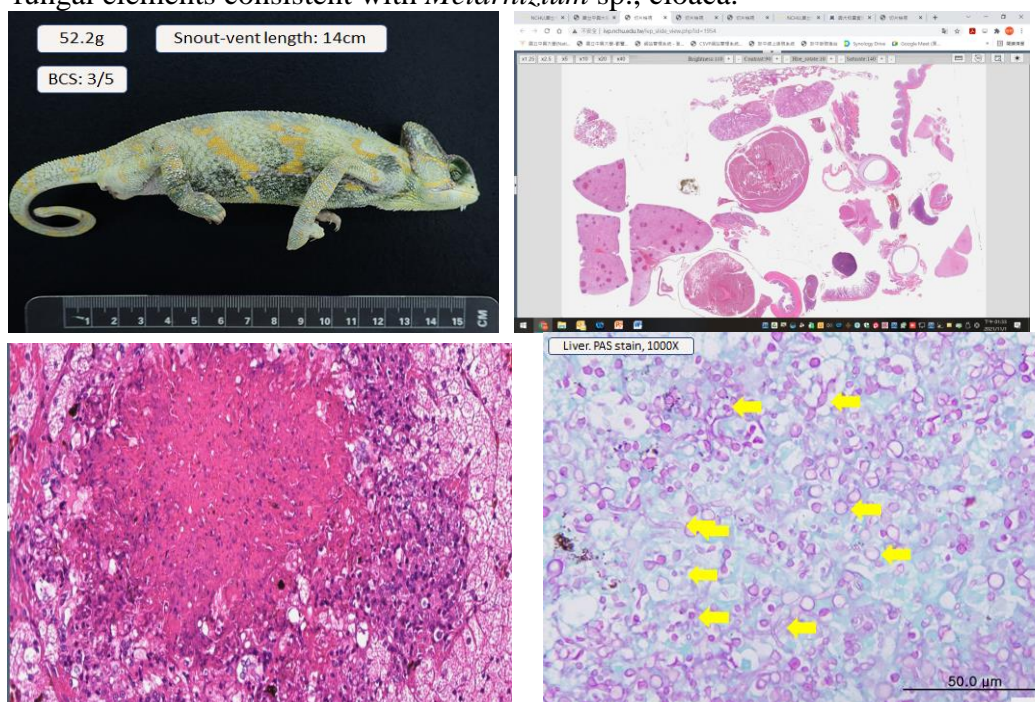
Multiple pathogens infection in Growing Pigs

Case 6. CSVP 2021-3115 (CO21-03001, ADDC NCHU, W.W. Wang, Y.C. Chang, J.W. Liao, and H.Y. Chiou)

Veiled chameleon, 1-year-old, intact female. The patient was found to be lethargic and anorexic with open mouth breathing, watery diarrhea, sunken eye, and increased oral mucus. The patient was found dead two weeks later, and was submitted for pathologic diagnosis.

Morphological diagnosis:

1. Hepatitis, necrogranulomatous, multifocal, chronic, severe, with intralesional fungal elements consistent with *Metarhizium* sp., liver
2. Pneumonia, necrogranulomatous, multifocal, chronic, moderate, with intralesional fungal elements consistent with *Metarhizium* sp. and intrafaveoli nematode, lung
3. Pancreatitis, necrogranulomatous and hemorrhagic, multifocal, chronic-active, moderate, with intralesional fungal elements consistent with *Metarhizium* sp., pancreas
4. Cloacitis, necrogranulomatous, multifocal, chronic, severe, with intralesional fungal elements consistent with *Metarhizium* sp., cloaca.



Laboratory examinations:

Bact: *Pseudomonas aeruginosa* (+); Fungus: *Metarhizium granulomatis* (+)

PCR: *Metarhizium granulomatis* (100%) (+)

Etiological Dx.:

Systemic mycosis caused by *Metarhizium granulomatis* in a Veiled Chameleon (*Chamaeleo calyptrotus*)