中華民國比較病理學會

Chinese Society of Comparative Pathology

第 43 次比較病理學研討會

國立臺灣大學獸醫專業學院

臺北市．臺灣

中華民國 97 年 7 月 19 日

43rd Meeting of Comparative Pathology

School of Veterinary Medicine, National Taiwan University

Taipei, Taiwan

July 19, 2008

中華民國比較病理學會第 43 次比較病理學研討會議程表

Schedule, 43rd Meeting of the Chinese Society of Comparative Pathology

時間：97 年 7 月 19 日(星期六) 08:40~16:45
地點：國立臺灣大學獸醫學系 B01 演講廳
地址：臺北市羅斯福路四段 1 號
電話： 02-33663858

Date: July 19, 2008 (Sat) 08:40~16:45
Location: B01, School of Vet Med, NTU
Address: No. 1, Sec. 4, Roosevelt Road, Taipei
Telephone: 02-33663858

Time	Schedule		Moderator
08:40~09:00	Registration		
09:00~09:15	Keynote		Dr Chen-Hsuan Liu (劉振軒)
09:15~09:45	Seminar	West Nile Encephalitis in Horses Dr. S.H. Vincent Hsiao (蕭世烜) National Taiwan University (臺灣大學獸醫專業學院)	Dr Chen-Hsuan Liu (劉振軒)
09:45~10:15	Case 296	Leptospirosis with hemophagocytosis Dr. Yung-Hsiang Hsu (許永祥) Buddhist Tzu-Chi General Hospital (花蓮慈濟醫院)	
10:15~10:30	Coffee Break		
10:30~11:00	Case 297	Mucin-Producing Cholangiocarcinoma 張簡意哲 醫師 Chang-Gung Memorial Hospital (基隆長庚醫院)	Dr Chian-Ren Jeng (鄭謙仁)
11:00~11:30	Case 298	Systemic Candidiasis in a Yellow-head Tortoise (*Indotestudo elongate*) Dr. Jiunn-Wang Liao (廖俊旺) National Chung Hsing University (中興大學獸醫學院)	
11:30~12:00	Case 303	Solitary fibrous tumor Dr. Jing-Lan Liu (劉淨蘭) Changhua Christian Hospital (彰化基督教醫院)	
12:00~13:00	Lunch (中華民國比較病理學會理監事會議)		
13:00~13:30	Case 300	Cutaneous epitheliotropic lymphoma in a dog Dr. Yi-Chien Lin (林意堅) National Taiwan University (臺灣大學獸醫專業學院)	Dr Yung-Hsiang Hsu (許永祥)
13:30~14:00	Case 301	Cholangiocarcinoma in *Felis lynx* Dr. Chun-Ming Lin (林俊明) National Taiwan University (臺灣大學獸醫專業學院)	
14:00~14:30	Case 302	Canine Lymphoma 邱國皓 獸醫師 National Taiwan University (臺灣大學獸醫專業學院)	
14:30~14:45	Coffee Break		
14:45~15:15	Case 299	Polioencephalomalacia in goat kids Dr. MT Tsai (蔡睦宗) Pingtung Liv. Dis Con. Center (屏東家畜疾病防治所)	呂福江 教授
15:15~15:45	Case 304	Multiple sarcoma, undetermined origin in a dog Dr. Yu-Xing Ding (丁宇星) National Taiwan University (臺灣大學獸醫專業學院)	
15:45~16:15	Case 305	Cryptococcus and Tuberculosis in bone Dr. Ming-Tsung Lai (賴銘淙) C. B. Show Chwan Mem. Hos. (彰濱秀傳紀念醫院)	
16:15~16:45	Discussion		Dr Chen-Hsuan Liu (劉振軒)

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Case No.	Presenter	Institution	Slide No.	Signalment
Case 296	Dr. Yung-Hsiang Hsu (許永祥)	Buddhist Tzu-Chi General Hospital (花蓮慈濟醫院)	A295-11	49 year-old man
Case 297	張簡意哲 醫師	Chang-Gung Memorial Hospital (基隆長庚醫院)	297	73 year-old man
Case 298	Dr. Jiunn-Wang Liao (廖俊旺)	National Chung Hsing University (中興大學獸醫學院)	CW 07-017A	Female yellow-head tortoise (*Indotestudo elongate*)
Case 299	Dr. M.T. Tsai (蔡睦宗)	Pingtung Livestock Disease Control Center (屏東家畜疾病防治所)	Q97-76A	2-month-old, male, Alpine goat kids
Case 300	Dr. Yi-Chien Lin (林意堅)	National Taiwan University (臺灣大學獸醫專業學院)	NTU 08-323	Castrated mongrel dog
Case 301	Dr. Chun-Ming Lin (林俊明)	National Taiwan University (臺灣大學獸醫專業學院)	NTU 08-397	Adult, male, *Felis Lynx*
Case 302	邱國皓 獸醫師	National Taiwan University (臺灣大學獸醫專業學院)	NTU 08-371A	8 year-old, mix-bred intact male, dog
Case 303	Dr. Jing-Lan Liu (劉淨蘭)	Changhua Christian Hospital (彰化基督教醫院)	C08-11186A	56-year-old women
Case 304	Dr. Yu-Xing Ding (丁宇星)	National Taiwan University (臺灣大學獸醫專業學院)	NTU 08-866R	4-year-old male Tibetain Mastiff dog
Case 305	Dr. Ming-Tsung Lai (賴銘淙)	Chang Bing Show Chwan Memorial Hospital (彰濱秀傳紀念醫院)		42-year-old women

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Case Diagnosis
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July 19, 2008

Case No.	Presenter	Institution	Slide No.	Diagnosis
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Case 297	張簡意哲 醫師	Chang-Gung Memorial Hospital (基隆長庚醫院)	297	Mucin-Producing Cholangiocarcinoma
Case 298	Dr. Jiunn-Wang Liao (廖俊旺)	National Chung Hsing University (中興大學獸醫學院)	CW 07-017A	Systemic Candidiasis in a Yellow-head Tortoise (Indotestudo elongate)
Case 299	Dr. M.T. Tsai (蔡睦宗)	Pingtung Livestock Disease Control Center (屏東家畜疾病防治所)	Q97-76A	Polioencephalomalacia in goat kids
Case 300	Dr. Yi-Chien Lin (林意堅)	National Taiwan University (臺灣大學獸醫專業學院)	NTU 08-323	Cutaneous epitheliotropic lymphoma in a dog
Case 301	Dr. Chun-Ming Lin (林俊明)	National Taiwan University (臺灣大學獸醫專業學院)	NTU 08-397	Cholangiocarcinoma
Case 302	邱國皓 獸醫師	National Taiwan University (臺灣大學獸醫專業學院)	NTU 08-371A	Canine Lymphoma
Case 303	Dr. Jing-Lan Liu (劉淨蘭)	Changhua Christian Hospital (彰化基督教醫院)	C08-11186A	Solitary fibrous tumor
Case 304	Dr. Yu-Xing Ding (丁宇星)	National Taiwan University (臺灣大學獸醫專業學院)	NTU 08-866R	Multiple Sarcoma, undetermined origin
Case 305	Dr. Ming-Tsung Lai (賴銘淙)	Chang Bing Show Chwan Memorial Hospital (彰濱秀傳紀念醫院)		Cryptococcus and Tuberculosis in bone

Case Number: 296 **Chinese Society of Comparative Pathology, July 2008**

Yung-Hsiang Hsu[1] (許永祥), MD; Ming-Hsun Li[1] (李明勳), MD; Chen-Hsuan Liu[2] (劉振軒), DVM, PhD

Department of Pathology[1], Buddhist Tzu-Chi General Hospital, Hualien (花蓮慈濟醫院病理科); School of Veterinary Medicine[2], National Taiwan University, Taipei (臺灣大學獸醫專業學院)

CASE HISTORY:

Signalment: 49-year-old man

Clinical History: A 49 y/o man sufferred from intermittent epigastric pain with radiated to right back for ten days. Decreased appetite, nausea and vomit were noted. Eating aggravated his abdominal pain and he felt better if fasting. Four days before admission, fever with cold sweating and chillness were mentioned. He went to LMD for help and antipyretic drugs were prescribed but in vain. He was transferred to our ER due to suspect pleural effusion on Oct 3,2007. At ER, leukocytosis was noted as 10470 /uL. Creatine was up to 2.5 mg/dL and c-reactive protein was elevated to 37.2 mg/dL. Abdominal sonography showed sludge in gallbladder with stones. Under the suspection of acute cholecystits, he was admitted for further evaluation and management.

After admission, flumarin and pain control were given for his abdominal pain, which improved later. At midnight on Oct 5, dyspnea with cold sweating was noted. He was transferred to ICU for further management. At ICU, he was intubated for dyspnea. Abdomen CT was followed but no obvious focus was seen. CT guided thoracocentesis tapped transudate. Due to suspected atypical pathogen, Penicillin, Cravit, Metronidazole and Acyclovir were used. He was extubated on Oct 8, and was placed on BiPAP. However, follow-up CXR still showed bilateral pleural effusion. Laxis was used. He had intermittent right sharp intermittent flank pain without radiation. He still had intermittent dyspnea with no improvement in renal function. Lab data revealed leukocytosis, thrombocytopenia, elevated CRP level (25.41mg/dL), and ABG showed respiratory alkalosis. He obviously had poor response to the antibiotics, and we shifted antibiotics from tetracycline to Mepem due to blood culture (G- bacilli, Acinetobacter baumannii on Oct 14). He also had atrial fibrillation with RVR began on October 17, which may result from paroxysmal atrial flutter-fibrillation due to major medical stress, and propafenon 300mg Q12H helped to turn the rhythm back to sinus rhythm. Due to the persistently high CRP, we shifted the antibiotics from penicillin, mepem, and cravit to tigecycline on Oct 22. However he did not appear to response to the antibiotics. The thrombocytopenia persisted despite the PRN transfusion and the bilirubin was still high. Sepsis-induced thrombocytopenia was favored. Rhabdomyolysis with CK > 16000 occurred on Oct 24. We consulted nephrologist doctor for the hemodialysis and plasma exchange for the persistent thrombocytopenia and uncaptured infection source. Hemodialysis began on Oct 30, and he received totally four hemodyalysis on Oct 29, 30, 31 and Nov 2 . He also received one plasma exchange on Nov 1. Neutropenia with ANC <500 was noted. G-CSF was given. Due to suspect hemophagocytosis, bone marrow biopsy was done. IVIG was given on Nov 11. However asystol was noted at AM 6:20 on Nov 12. Autopsy was performed.

Gross findings: At autopsy, he was 94.5 kg in weight and 170 cm in length. Grossly, generalized jaundice and anasarca were noted. When opening the chest cavity, 600 ml serous and 500 ml serous pleural effusions were found in the right and left pleural cavity respectively. Pleural adhesions were also found in the bilateral pleural cavity. The right

lung weighted 900 grams and the left one weighed 700 grams. On cutting, diffusely hemorrhagic change was found. On opening the pericardium, there was 50ml serous pericardial effusion. The heart weighed 380 grams. Some whitish fibrin coated the pericardium was noted. On cut, some petechia hemorrhage in the both ventricle was seen. When opening the abdomen, there were 1000 ml serous ascites. On opening the GI tract, three stress ulcers with hemorrhagic gastritis was noted. The liver weighed 1900 grams. On cut, marked swelling and congestion was seen. The spleen weighed 220 grams. The right kidney weighed 170 grams. The left kidney weighted 160 grams. On cutting, urate nephropathy was noted in the medulla area. The urinary bladder revealed hemorrhagic cystitis. On removing the skull bone, the brain was unremarkable and weighed 1400 grams. On serial cutting, neither tumor nor infarction was noted.

Case Number: 296 **Chinese Society of Comparative Pathology, July 2008**

Yung-Hsiang Hsu[1] (許永祥), MD; Ming-Hsun Li[1] (李明勳), MD; Chen-Hsuan Liu[2] (劉振軒), DVM, PhD
Department of Pathology[1], Buddhist Tzu-Chi General Hospital, Hualien (花蓮慈濟醫院病理科); School of Veterinary Medicine[2], National Taiwan University, Taipei (臺灣大學獸醫專業學院)

CASE RESULT:

Histopathology findings: Microscopically, the kidney showed acute tubulo-interstitial nephritis with lymphocyte (CD_3 positive) infiltration in the interstitial and tubular atrophy. The lungs showed diffuse alveolar hemorrhage with hyaline membrane formation which was the cause of death.

In the liver, centrozonal necrosis with intrahepatic cholestasis, acidophilic bodies formation and lymphocyte (CD_3 positive) infiltration in the portal area.The gall bladder showed acute cholecystitis with lymphocyte infiltration. In the heart, mild interstitial myocarditis with lymphocyte infiltration and myocardial cell necrosis. In addition, multifoci of rhabdomyolysis with dystrophic calcification was also noted. In the terminal, hemophagocytosis developed. We could find numerous macrophages (CD68 positive)with hemophagocytosis in the bone marrow, liver, spleen and mesenteric lymph nodes.

Immunohistochemistry stain and Warthin-Starry silver stain: Warthin-Starry stain and immunohistochemistry stain demonstrated some leptospiral spirochete in the lumen of renal tubules, alveolar spaces of lung, sinusoid of liver , submucosal layer of gall bladder and myocardial cells .

Diagnosis: Leptospirosis with multiple organ failure and reactive hemophagocytosis

Diagnostic Criteria:
1. Immunohistochemistry stain and Warthin-Starry silver stain
2. Microscopic agglutination test (MAT): Titer $\geqq$400x

Discussion: Leptospirosis, caused by a spirochete, is the most common zoonosis in domestic or wild animals. Animals excrete infected urine in soil or water and may cause human infections through abrased wound, mucosa, conjunctiva, or by swallowing contaminated water. Clinical presentations of leptospirosis are mostly subclinical. Five to ten percent of leptospirosis are fatal, causing fever, pulmonary hemorrhage, jaundice, and acute renal failure (Weil's syndrome) such as our case. Severe rhabdomyolysis-induced leptospirosis have very rarely been reported. Speculation has focused on spirochetal release of an exotoxin that damages the muscle directly or invasion of the muscle resulting in inflammation and destruction. The predominant feature on histopathological examination of cardiovascular system was the presence of interstitial myocarditis (100% of cases), with involvement of the epicardium/endocardium (39%), valves (36%), coronary arteries (51%) and aorta (56%).

In this case, we also demonstrated leptospirosis associated reactive . hemophagocytosis presenting pancytopenia clinically. Only one case has been reported in the literature . It appears that the reactive hemophagocytosis may be associated with various types of active disseminated infections such as our case.

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1. Yang CW, Pan MJ, Wu MS, Chen YM, Tsen YT, Lin CL, Wu CH, Huang CC. Leptospirosis: an ignored cause of acute renal failure in Taiwan. Am J Kidney Dis. 1997;30(6):840-5.
2. Yang CW. Leptospirosis in Taiwan--an underestimated infectious disease. Chang Gung Med J. 2007;30(2):109-15
3. Yang HY, Hsu PY, Pan MJ, Wu MS, Lee CH, Yu CC, Hung CC, Yang CW. Clinical distinction and evaluation of leptospirosis in Taiwan--a case-control study. J Nephrol. 2005;18(1):45-53.
4. Turgut M, Sünbül M, Bayirli D, Bilge A, Leblebicioğlu H, Haznedaroğlu I. Thrombocytopenia complicating the clinical course of leptospiral infection. J Int Med Res. 2002;30(5):535-40.
5. Coursin DB, Updike SJ, Maki DG. Massive rhabdomyolysis and multiple organ dysfunction syndrome caused by leptospirosis. Intensive Care Med. 2000;26(6):808-12.

Case Number: 297 **Chinese Society of Comparative Pathology, July 2008**

張簡意哲 醫師
Department of Pathology, Chang-Gung Memorial Hospital Keelung Branch, Keelung (基隆長庚醫院病理科)

CASE HISTORY:

Signalment: 73-year-old man

Clinical History: A73 y/o male patient came to our GS OPD for help due to the left inguinal hernia. However, right lung mass was found on CXR during the pre-op survey. A series study including chest CT scan and abdominal echo were arranged, which reveal the RUL mass, RLL nodule, left liver atrophy, and IHDs dilatation with hilar lesion. Therefore, right upper lung mass, lower lung nodule and CHD tumor are impressed.

Abnormal Lab. Data:

ALP	117	U/L	H	28-94
GLU-(AC)	179	mg/dL	H	70-105
ALBUMIN	3.1	g/dL	L	3.5-4.7
T-CHOL	267	mg/dL	H	<200
CEA	5.23	ng/ml		<5(一般), <7(吸菸者)
CA-19.9	17.8	U/ml		<37 (一般), >120

Other Survey:
1. Bronchoscope and brushing cytology showed negative findings.
2. Abdominal echogram disclosed bilateral IHDs dilation, marked CBD dilatation with one hyper echoic mass like lesion (without acoustic shadow) 1.65x1.34 cm in CBD.
3. Triphase abdomen CT and ERCP also indicated CHD lesion suspect malignancy.

Management:
2007/10/15: Segmental Hepatectomy (S2 and S3) with Choledochotomy
2007/10/15: Thoracoscopic wedge resection of the RUL and RLL
2007/10/24: Exploratory laparotomy

Gross Finding (in the liver):
1. Multiple tumor lesion within dilated biliary tracts, up to 0.8x0.8x0.5cm with papillary configuration and grayish white and mucoid cut surface
2. The tumor is diffusely distributed within biliary tracts
3. Absence of portal vein thrombosis
4. Atrophy of liver tissue

張簡意哲 醫師
Department of Pathology, Chang-Gung Memorial Hospital Keelung Branch, Keelung (基隆長庚醫院病理科)

CASE RESULT:

Histopathological Finding:
1. Intraducal papillary mucin-producing tumor with variant degree of differentiation from mild dysplasia to invasive carcinoma.
2. Bile duct involvement is conspicuous, however portal vein and capsular invasion are absent
3. The surgical margin is involved by tumor
4. Tumor with similar morphology is found at the RLL nodule of the lung
5. Squamous cell carcinoma with papillary variant is found at the RUL of the lung
6. IHC positivity for CEA, CA19-1 CDX2, MUC1, and CK20; negative for TTF-1 for both liver and RLL nodule

Diagnosis:
1. Liver, Left, Segment 2 and 3, segmental hepatectomy - Mucin-producing Cholangiocarcinoma, columnar type
2. Lung, RLL, wedge resection - Cholangiocarcinoma, metastatic
3. Lung, RUL, wedge resection - Squamous Cell Carcinoma, Papillary Variant

Diagnostic Criteria: 1) Dilated biliary duct with, 2) Neoplastic cell grow in tubular and papillary pattern with/without stroma invasion and dysplasia, 3) Mucin pool formation

Treatment and Course: The post-operative follow-up choledochoscopy revealed residual mucinous tumor proved by pathology. The family decided to receive palliative treatment due to poor general conditions.

Discussion: Mucin producing cholangiocarcinoma is an uncommon biliary tract malignance. Sakamoto et al reported the features of this kind of special tumor with cystic or ductectatic growth pattern. It is believed to be the counterpart of Intraductal Papillary Mucinous Neoplasm (IPMN) of Pancreas. It has a wide spectrum of differentiation, from adenoma, borderline tumor and carcinoma without stoma invasion to invasive carcinoma. Hiroaki et al further classified the subtype of the Mucin-Producing Bile Duct Tumor (MPBT) base on the macroscopic finding, cytological finding, proliferative activity (by Ki-67 labeling), and survival rate and mucin expression into two categories, namely “columnar and cuboidal” subtypes.

MPBT shares the common clinical symptom with other non-MPBT. They carry more favorable prognosis with the non-MPBT. Kuo et al recommended using CA19-9 level greater than 120 U/ml as the diagnostic aid and surgical resection is the ideal choice for the treatment.

Reference:
1. Kuo C M et al. Mucin-Producing Cholangiocarcinoma: Clinical experience of 24 cases in 16 years. Scandinavian J of Gastroenterology 2005 40:455-459
2. Hiroaki S, Shugo T et al. Pathologic Features of Mucin-Producing Bile Duct Tumors. Am J Surg Pathol. 2004 28:327-338
3. Sakamoto E, Nimura Y et al. Clinicopathological studies of mucin-producing intrahepatic cholangiocarcinoma. J Hepatobiliary Pancreat Surg. 1997;4:157-162

4. Yoshiharu M, Norio S et al. Rapidly Growing Mucinous Cholangiocarcinoma. Internal Medicine. 1993 Feb. 32:116-121

Yi-Juan Lin[1] (林怡絹), Fang-Tse Chan[2] (詹芳澤), Ching-Ling Yang[1] (楊青玲), Ling-Min Wang[2] (王齡敏), Pet-T Lin[2] (林佩羿), Kun-Chao Chen[3] (陳鯤兆), Lee-Jen Chen[3] (陳俐君), Jhaol-Huei Wu[3] (吳昭慧), Yi-Fan Lee[1] (李易帆), Wen-Fa Chang[3] (張文發), Jiunn-Wang Liao[1,3] (廖俊旺)*

Graduate Institute of Veterinary Pathology[1], National Chung Hsing University, (中興大學獸醫病理生物學研究所); Endemic Species Research Institute[2] (特有生物保育研究中心); Animal Disease Diagnostic Center[3], National Chung Hsing University (中興大學動物疾病診斷中心)

CASE HISTORY:

Signalment: Yellow-head tortoise (*Indotestudo elongate*), female, age unknown, was rescued and treated for anorexia and laceration around anus at the Endemic Species Research Institute in Nan-tou County. Firstly, the wound was cleaned and sutured, then was treated with 5% glucose solution and Baytril s.c. with antibiotic dipping. After that, the turtle still appeared anorexia, constipation and/or diarrhea interval in clinic for a while time. The turtle died after 69 days of treatment. The body was frozen and then sent to ADDC for pathological diagnosis.

Gross finings: At necropsy, the turtle was cachectic, and had a skin laceration around anus about 5 × 5 cm. The gastrointestinal tract of stomach and duodenum became thickness, and a massive ulcerative lesion with blackish pseudomembrane was found in the duodenum. Furthermore, multiple, whitish to yellowish nodules with variable in sizes scattered on the oral cavity and peritoneum (0.2 × 0.2 × 0.2 cm), stomach (0.3 × 1.3 × 1 cm), heart, lungs (0.5 × 1.5 × 1 cm), liver (0.3 × 0.3 × 0.3 cm), kidneys (2.3 × 1.7 × 1 cm), ovaries and uterus. No significant lesion was noted in brain.

Yi-Juan Lin[1] (林怡絹), Fang-Tse Chan[2] (詹芳澤), Ching-Ling Yang[1] (楊青玲), Ling-Min Wang[2] (王齡敏), Pet-T Lin[2] (林佩羿), Kun-Chao Chen[3] (陳鯤兆), Lee-Jen Chen[3] (陳俐君), Jhaol-Huei Wu[3] (吳昭慧), Yi-Fan Lee[1] (李易帆), Wen-Fa Chang[3] (張文發), Jiunn-Wang Liao[1,3] (廖俊旺)*

Graduate Institute of Veterinary Pathology[1], National Chung Hsing University, (中興大學獸醫病理生物學研究所); Endemic Species Research Institute[2] (特有生物保育研究中心); Animal Disease Diagnostic Center[3], National Chung Hsing University (中興大學動物疾病診斷中心)

CASE RESULT:

Histopathologic description: Microscopically, a massive ulceration with Zenker's degeneration of muscles was found in the anus. The severe necrotic enteritis and exfoliated necrotic epithelium with inflammatory cells were found in the duodenum. A lot of yeast-like organisms, round in shape and measuring 5-10 μm in diameter, with no branch fungal hyphaes were also noticed in the mucosal layer of duodenum. Furthermore, marked numerous coagulative necrosis and pyogranulomas vary in sizes were observed in the various organs of esophagus, heart, kidney, lung, liver, peritoneum, spleen, stomach, ovaries and uterus. The characteristics of pyogranulomas were mainly infiltrated with heterophils and mononuclear cells. Some of crashed round yeast-like organisms presented in the central area of pyogranulomas. Thin fibrotic tissue was also noted in the peripheral area to form an untypical encapsulization. However, no calcification or giant cells could be found in the pyogranulomas. Numerous brownish pigments of melanomacrophages aggregated in the spleen, liver and kidneys.

Laboratory result:

1. Microbial cultivation: Result revealed that numerous grayish and pinkish colonies grown in cultivated agar plates, and were identified as *E*. *coli*.
2. Acid-fast staining: A negative result of Acid-fast staining was found in the pyogranulomas.
3. Periodic Acid Schiff (PAS) staining: Strong positive reaction of PAS staining on hyphaes and spores was found in the ulcerative and pyogranulomas of stomach and mucosal layer of duodenum. Some of crashed round yeast-like spores were also stained in the central area of pyogranulomas in various organs.
4. Immunohistochemistry (IHC) staining: Negative reaction of *Mycobacterium tuberculosis* and *Aspergillus* spp. was noted, but strong reaction was stained after staining with *Candida albicans* antibody.

Morphologic diagnosis:

1. Pyogranuloma, multiple, moderate to severe, chronic in the various organs of esophagus, heart, kidney, lung, liver, peritoneum, spleen, stomach, ovaries and uterus, turtle
2. Ulceration, diffuse, severe, subacute, with numerous yeast cells and hyphaes grown in the mucosa, duodenum, turtle

Final diagnosis: Systemic Candidiasis in a Yellow-head Tortoise (*Indotestudo elongate*)

Comments: Yellow-head tortoise (*Indotestudo elongate*) lives and distributes mainly in the southern of Asian, including the forests around the tropic and subtropical areas. The body shape of yellow-head tortoise is small to middle in size. The suitable temperature and humidity are around 26-30℃ and 60-80%, respectively. They can be raised with fruits and vegetables.

Candida albicans (*C. albicans*) is a fungus that lives harmlessly in the gastrointestinal (GI) tracts. There are relatively few reports of mycotic diseases in turtles compared with other reptiles, although infections have been described in both captive (Jacobson et al., 1979; Glazebrook and Campbell, 1990a) and wild sea turtles (Lewbart and Medway, 1993). Although mycotic granulomas can be found in the liver and throughout the coelomic cavity of wild and captive sea turtles, systemic mycotic infections occur primarily in the lungs such as Aspergillosis (Dagleish et al., 2006). The intestinal candidiasis in a loggerhead sea turtle (*Caretta caretta*) has been reported previously (Orós et al., 2004). There are no reports of *Candida* sp. causing systemic mycotic infection in turtles.

In our case, a yellow-head tortoise was accidentally found to be systemic candidiasis based on the severe necrotic enteritis accompanied with a lot of candida organisms growing in the gastrointestinal tract. Furthermore, numerous coagulative necrosis with vary in sizes of granulomas were observed in the organs of esophagus, heart, kidney, lung, liver, peritoneum, spleen, stomach, ovaries and uterus. Some of crashed round candida organisms also present in the central area of pyogranulomas. The fungal elements were strongly stained and identified by a polyclonal antibody against *C. albicans* by using immunohistochemistry.

The presumed mechanism for invasive *C. albicans* disease involves initial mucosal surface colonization followed by invasion into the adjacent tissues and organs. *C. albicans* usually colonizes the gastrointestinal (GI) tract with subsequent translocation into extraintestinal organs (i.e., mesenteric lymph nodes, blood stream, liver, and spleen) in the setting of chemotherapy- induced neutropenia and GI mucosal damage (Orós et al., 2004). Three primary mechanisms that promote pathogenic microbial (bacterial and fungal) translocation in animal models are: 1) disruption of the normal GI microbiologic equilibrium allowing intestinal overgrowth of pathogens, 2) increased permeability of the intestinal mucosal barrier, and 3) deficiencies in the host immune defenses (Kennedy and Volz, 1985; Koh et al., 2008).

Both neutropenia and GI mucosal damage are critical for allowing widespread invasive *C. albicans* disease in a mouse model of C. albicans GI colonization that led to systemic spread after administration of immunosuppression and mucosal damage (Koh et al., 2008). In our case, the yellow-head turtle was rescued and treated for anorexia and laceration around anus. She was treated with 5% glucose solution and Baytril s.c. with antibiotic dipping for two months. Not surprisingly, high risk factors for developing candidemia include neutropenia, mucositis, use of broad spectrum antibiotics, and invasive medical procedures (Koh et al., 2008).

Finally, this case indicates that *C. albicans* should be included in the differential diagnosis of enteritis and pyogranulomas in turtles and also represents the few reports of a systemic mycotic infection in a turtle diagnosed by different immunohistochemistry.

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Case Number: 299 **Chinese Society of Comparative Pathology, July 2008**

MT Tsai (蔡睦宗), WL Chen, CH Hsaio, JP Shu
*Pingtung Livestock Disease Control Center (*屏東縣家畜疾病防治所)

CASE HISTORY:

Signalment: 2-month-old, male, goat kids, Alpine cross type, Caprine

Clinical History: Two goat kids, about 2-month-old, were presented to our lab because of gradual expression of neurologic abnormalities over a period of 1 to 7 days, which initially began with dullness, depression, and neck stiffness. 3-4 day after onset, stiff gait might be seen. By 5 days after onset, kids became lateral recumbency, arching of the back, opisthotonos, rigid limbs, convulsions, nystagmus, coma and eventually death in 1-2 days if treatment is not given. The farm had about 750 goats totally. Five goat kids showed nervous signs and died consecutively. The sick kids didn't respond well to antibiotic treatment.

Laboratory Results:
1. Brain culture: Few *E. Coli* colonies was cultured from cerebrum on blood agar
2. Fecal examination of parasites: negative

Gross Lesions: The surface of the brain showed mild flattening of cerebrocortical gyri and narrow sulci. Transverse section of the cerebrum revealed multifocal yellow to tan discoloration of the cerebrocortical gray matter. There was a focal cerebralcortical gray and white matter laminar necrosis and separation. No grossly visible lesions were found in other organs.

Case Number: 299 **Chinese Society of Comparative Pathology, July 2008**

MT Tsai (蔡睦宗), WL Chen, CH Hsaio, JP Shu
*Pingtung Livestock Disease Control Center (*屏東縣家畜疾病防治所)

CASE RESULT:

Histopathologic description: Laminar cortical necrosis in affected cerebral sulci and gyri with focal separation of the gray and white matter was noticed. Widespread vacuolation was present throughout the deep lamina of cerebral cortex with prominent clear spaces around capillaries and neurons. The neurons were shrunken, acidophilic, and surrounded by a clear space. The vessels were prominent with swollen proliferative endothelial and adventitial cells and a perivasular clear space. Some gitter cells were found at the neuropil near the superficial cortex. Few neutrophils and mononuclear cells infiltrated in leptomeninge. Small foci of haemorrhages were found on the brain stem.

Morphologic diagnosis: Brain, cortical grey matter: Necrosis, laminar, multifocal, goat kids, alpine cross type breed, caprine.

Etiology: Contributing causes of cerebralcortical necrosis (CCN), or Polioencephalomalacia in goats includes thiamine deficiency or an inhibition of thiamine activity, sulfur toxicity, and acidosis.

Comments: Polioencephalomalacia (PEM) also known as cerebralcortical necosis (CCN), this nutritional/metabolic disease affects primarily ruminants, including goats. Contributing causes of cerebralcortical necrosis (CCN), or Polioencephalomalacia in goats includes thiamine deficiency or an inhibition of thiamine activity, sulfur toxicity, and acidosis. In goats, the disease typically targets animals that are two months to three years of age. The condition has also been seen in young goats consuming thiamine-deficient milk replacers. Sudden changes in diet, the use of horse feed high in molasses, the feeding of moldy hay, the dietary stress of weaning, deworming with levamisole, and thiabendazole, some species of a fern, and overdosing of amprolium have all been associated with cases of caprine polioencephalomalacia. Other diseases with similar signs such as enterotoxemia, pregnancy toxemia, heat meningitis, listeriosis, CAE (caprine arthritis-encephalitis), tetanus, rabies, copper deficiency induced swayback and enzootic ataxia should be ruled out. Thiamine (vitamin B1) deficiency has been associated with neurologic disease in carnivores (Chastek paralysis), human beings disease (Wernicke's encephalopathy), classically associated with chronic alcoholism, and ruminants. Gross and microscopic lesions are bilaterally symmetric and commonly involve brain stem nuclei (especially caudal colliculi and periventricular nuclei), but cerebral cortex and cerebellum have also been affected. Lesions consist of status spongiosus, neuronal necrosis, myelin degradation, and vascular endothelial and perithelial cell nuclear prominence. Hemorrhage and an influx of macrophages also occur in some cases. The disease is seen most commonly in cattle 6 to18 months of age. In sheep, most cases occur in younger age group (e.g., 2 to 7 months). Gross lesions are limited primarily to the cerebal cortex. Externally, the surface of the brain can be swollen as indicated by flattening of cerebrocortical gyri, and narrow sulci. Yellow discoloration of the cerebrocortical gray matter occurs in the early stages, Edematous separation and necrosis involving the middle to deeper lamina or gray-white matter interface may be seen after 8 to 10 days. In advanced cases with prolonged survival, areas of marked atrophy of cerebral gyri with an attenuated or absent gray matter zone are covered by meninges. Microscopically, the earliest changes are astrocytic swelling and neuronal necrosis with a laminar pattern of pallor (edema). Neurons in middle to deep

lamina are preferentially affected. In the early stages or mild cases, lesions can be limited to depths of cerebrocortical sulci, but generally there is involvement of entire gyri that may be confluent over extensive areas of the cortex. After 4 to 5 days, neuronal necrosis and edema are more severe, and there is early of blood monocyte that mature into tissue macrophages and become gitter cells. Macrophages and gitter cells are observed most commonly in perivascular and perineuronal spaces and in pia arachnoid. After 8 to 10 days, necrosis and edema have resulted in laminar separation (at the gray matter-white matter interface) in which there are prominent accumulations of macrophages. Additional lesions that accompany the necrosis include vascular prominent due to endothelial cell and perithelial cell hypertrophy and hyperplasia, congestion, and a minimal influx of neutrophiles. Bilaterally symmetric focal lesions of a similar nature occur in the thalamus and midbrain or colliculi and rarely in other brain stem structures.

Although the pathological lesions of characteristic cerebralcortical laminar necrosis revealed this is a case of polioencephalomalacia in goat kids, the exact etiology of polioencephalomalacia in this goat farm need further to be elucidated by more laboratory results. As dehoring was not performed by these two male goat kids, so heat meningitis was ruled out. Listeriosis was also ruled out because of the absence of brain stem lesions. Enterotoxemia (due to *Clostridium perfringens* type D), which is different from polioencephalomalacia, induced focal symmetrical encephalomalacia of lambs in the internal capsule and adjacent basal nuclei, thalamus, mesencephalon and cerebellar peduncles. Histological lesions of CAE are characterized by a multifocal, mononuclear inflammatory leukoencephalomyelitis accompanied by extensive demyelinization. The most significant finding in rabies is Negri bodies in the cytoplasm of neurons, particular in hippocampus and Purkinje cells. The diagnosis of tetanus is based on the rather characteristic clinical syndrome it produces. The lesions of congential swayback of lamb mainly affect the cerebral white matter bilaterally and symmetrically.

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Case Number: 300 **Chinese Society of Comparative Pathology, July 2008**

Yi-Chien Lin (林意堅), DVM; Chen-Hsuan Liu (劉振軒), DVM, PhD
School of Veterinary Medicine, National Taiwan University, Taipei (臺灣大學獸醫專業學院)

CASE HISTORY:

Signalment: Castrated mongrel dog of unknown age.

Clinical History: The patient's lip of right side was swelling and erythematic. After steroid treatment, the lip got better, but recurred after discontinuing medication.

Clinical Pathology: Regenerative microcytic hyperchromatic anemia (PCV=35.8% [ref:37-55] with nuclear evident RBC)

Gross lesion: The swelling and erythematic lesion was 1 x 0.5 x0.5 cm and soft texture.

Case Number: 300 **Chinese Society of Comparative Pathology, July 2008**

Yi-Chien Lin (林意堅), DVM; Chen-Hsuan Liu (劉振軒), DVM, PhD
School of Veterinary Medicine, National Taiwan University, Taipei (臺灣大學獸醫專業學院)

CASE RESULT:

Histopathological description: Microscopically, diffuse infiltrations of lymphoid tumor cells epidermis, dermis, and some associated follicular epithelium are the characteristic features of the lip biopsy submitted. The tumor cells appear sheets and in small clusters (Pautrier's microabscess) within the epidermis. They are round and have distinct cell border, hyperchromatic nuclei, and moderate amounts of eosinophilic cytoplasm. The mitotic figures are 3-4/HPR. The tumor cells also infiltrate adnexal structures of hair follicles, apocrine sweat glands, and sebaceous glands. Immunohistochemical staining reveals that the tumor cells are strongly immunoreactive with T-cell (CD3) marker and fail to stain the B-cell (CD79A) marker. These findings are suggestive of the epitheliotrophism of T-cell origin. The cells with positive macrophage stain are scattered among the tumor cells.

Morphologic diagnosis: Cutaneous epitheliotropic lymphoma, resembling mycosis fungoides, lip biopsy

Clinical progression: The wound of biopsy healed, but the lip became swollen again in 2-3 days after surgery. After vincristine chemotherapy, the tumor size was decreased.

Comments: Canine epitheliotropic cutaneous lymphoma (ECL) is a tumor of skin and mucous membranes that occurs in old dogs (mean age 11 years) and has no breed predilection. The lesions evolve from a patch-plaque stage into a tumor stage in which distant metastasis is observed. There are two forms of the disease: cutaneous (involves skin) and oral. Epitheliotropic lymphoma is also known as mycosis fungoides (MF), so named because of the mushroom-like appearance of the tumors in humans. This term is considered archaic and confusing (being confused with mycotic skin disease).

As early signs of MF may also occur in many other diseases, the condition is often referred to as great impersonator. In dogs and cats, four clinical forms have been described. Many dogs present with signs of itchiness, skin inflammation and seborrhea that do not respond to treatment. Other animals can develop ulcerations on the footpads and in the mouth.

Early stages of epitheliotropic lymphoma can resemble inflammatory skin disease including inflammation, scaling and itch. Itchy skin and scaling represent the early stage of (ECL) which then progresses to plaques over a period of several months. At this stage of the disease, dogs become depressed, lethargic, have fever and lose appetite. Depigmentation, alopecia, plaques, ulceration, and crusting develop. Many dogs are presented with a history of chronic skin disease. The skin lesions may be localized in one place of the body or generalized. Dogs presented with advanced epitheliotropic lymphoma usually have multiple tumors that can occur anywhere, but appear to have a predilection for mucocutaneous junctions and the oral cavity. Metastasis to lymph nodes and other organs occurs, so dogs may present with other signs of systemic disease.

The prognosis is poor for both forms of cutaneous lymphoma. Recurrence of disease is very common despite various treatments. Generalized epitheliotropic lymphoma is often treated with five-drug chemotherapy. Palliative therapy, such as glucocorticoid and antibiotic administration as well as antiseborrheic and antibacterial shampoos, can

temporarily improve the patient's quality of life. Radiation treatment may be helpful, with or without systemic chemotherapy, depending on the stage of disease. However, there is no evidence that the therapies extend the lifespan of a dog diagnosed with mycosis fungoides. Retinoid therapy has been used but with unpredictable success. Surgical removal of the tumors is impossible because such extensive areas of the body are usually involved.

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Case Number: 301 **Chinese Society of Comparative Pathology, July 2008**

Chun-Ming Lin (林俊明), DVM; Victor Fei Pang (龐飛), DVM, PhD
School of Veterinary Medicine, National Taiwan University, Taipei (臺灣大學獸醫專業學院)

CASE HISTORY:

Signalment: Adult, male, *Felis Lynx*

Clinical History: The *Felis Lynx* became emaciated, depressed, and anorexic before his death.

Gross Findings: Upon necropsy, the liver was diffusely enlarged and contained numerous irregular, yellow to orange, slightly centrally depressed nodules, ranging from 0.2 to 4 cm in diameter, randomly distributed throughout all of the lobes. These nodules occupied more than 90% of the hepatic parenchyma. The texture of the liver was firm. On the cut surface of the nodular growths, they had a spongy appearance. A 2.5 x 1 x 1 cm nodule was located at the junction of the common bile duct and the duodenum. Similar nodules, ranging form 0.2 x 0.3 x 0.1 to 3.5 x 5 x 2.5 cm, were also observed in the spleen, omentum, adrenal glands, mandibular lymph node, lungs and renal cortex of the right kidney.

Case Number: 301 **Chinese Society of Comparative Pathology, July 2008**

Chun-Ming Lin (林俊明), DVM; Victor Fei Pang (龐飛), DVM, PhD
School of Veterinary Medicine, National Taiwan University, Taipei (臺灣大學獸醫專業學院)

CASE RESULT:

Histopathological Findings: There are multiple discrete to coalescent, irregular, necrotic areas randomly distributed in the liver parenchyma. These necrotic areas are collared by layers of fibrous connective tissue. Within the necrotic regions, there are islands, cords or aggregates of neoplastic epithelial cells that are usually clustered together or are arranged in acinar to irregular tubular structures surrounded by varying amounts of cell debris mixed with some mononuclear inflammatory cells, fibrin, and hemorrhage. The epithelial cells are cuboidal to columnar and usually have a moderate amount of clear to pale eosionphilic cytoplasm. The nuclei are round to oval and vesicular with a fine reticular pattern of the chromatin. The nucleoli are often single and evident. The number of mitotic figure is variable, ranging from 0 to 5/HPF. The remaining hepatocytes also show moderate disassociation. In addition, similar tumor cells as those seen in the liver are also noted in other organs (not provided), including spleen, kidney, lungs, adrenal gland, omentum, and submandibular lymph node.

Contributor's diagnosis: Cholangiocarcinoma, liver with metastases to spleen, kidney, lungs, adrenal gland, omentum, and submandibular lymph node

Discussion: Primary liver tumors in cats are infrequently reported compared to lymphoreticular neoplasms (e.g., hepatic lymphoma and mast cell tumor) and metastatic neoplasm from gastrointestinal tract, pancreas, and spleen. A greater diagnostic challenge arises when cholangiocarcinomas are to be distinguished from metastatic adenocarcinomas in the liver. In the present, the diagnosis of cholangiocarcinoma was made because the liver was the one most severely affected than any other organs or tissues. Cholangiocarcinoma is the term used for a malignant liver tumor that arises from either the intrahepatic or extrahepatic bile duct epithelium. They are highly invasive and frequently metastasize. In domestic cats, the rate of metastasis is high, reaching 78%. In addition, cholangiocarcinomas are typically located within the liver in cats and often have a multinodular distribution pattern, which in most cases precludes surgical removal. Whereas many risk factors have been identified for the development of hepatobillary tumors in humans, no firm etiopathogenesis has been established either in domestic or wild felines. The information regarding the prognosis of cholangiocarcinoma following chemotherapy or surgery is rather limited but the outlook is generally poor.

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Case Number: 302 **Chinese Society of Comparative Pathology, July 2008**

邱國皓 獸醫師
School of Veterinary Medicine, National Taiwan University, Taipei (臺灣大學獸醫專業學院)

CASE HISTORY:

Signalment: 8 year-old, mix-bred intact male, dog

Clinical History: The dog had signs of progressive weakness and paralysis of forelimbs for 2-3 weeks and then became tetra-paralysis for 2 days. Anorexia and severe dehydration were also noted. Chest X-ray revealed a radiopaque mass at the cranial mediastinum.

Clinical Pathology:

CBC Abnormalities:

1. Non-regenerative, normocytic, nornochomatic anemia (PCV=30.3% [ref: 37-55])
2. Leukocytosis with neutropenia and lymphocytosis (WBC = 80,900 n/μL [ref: 6,000~17,000]; Segment neutrophils = 5% [ref: 60~77]; Lymphocytes = 95% [ref: 12~30])
3. Thrombocytopenia; platelets density was low (Platelets = 8§ $\times 10^3$/μL [ref: 200-900 $\times 10^3$])

Clinical Chemistry and Urinalysis Abnormalities:

1. Increase in alanine aminotransferase (58 U/L [ref: 3-50]), asparatate aminotransferase (69 U/L [ref: 1-37]) and alkaline phosphatase (231 U/L [ref: 20-155])
2. Azotemia with high creatinine; BUN = 166 mg/dL [ref: 4.5-30.5]; creatinine = 2.0 mg/dL [ref: 0.5-14.5]
3. Hyperkalemia (8.7 mmol/L [ref: 305-5])

Gross Pathology: At necropsy, a large, white, and irregular mass, measured about 6 × 10 × 7 cm, was located at the anterior mediastinum of the thorax with dilated caudal and cranial vena cava. The liver and spleen showed diffuse enlargement. The surface of both kidneys was mottled red white. Ecchymotic to brush hemorrhages could be observed in the mucosa of the urinary bladder. After opening the spinal canal, it was revealed that outside the dura matter, the spinal cord was almost completely surrounded by a layer of pink, soft tissue extending from the distal cervical vertebrae to the end of the lumbar vertebrae. At the distal cervical and proximal lumbar vertebrae, the soft mass had caused significant deviation and compression to the spinal cord.

Case Number: 302 **Chinese Society of Comparative Pathology, July 2008**

邱國皓 獸醫師
School of Veterinary Medicine, National Taiwan University, Taipei (臺灣大學獸醫專業學院)

CASE RESULT:

Histopathologic Description:

Mediastinal mass: It displays dense cellularity and is well demarcated and encapsulated by fibrous connective tissue. It is composed of sheets of closely packed monomorphic round cells. The cells are round to polygonal with scant eosinophilic cytoplasm. They have centrally located, round to crimped, open-faced to hyperchromatic nuclei containing varying amounts of coarsely clumped to stippled chromatin granules. The mitotic rate is high, ranging from 4 to 7/HPF. The tumor cells have invaded the capsule and the adjacent adipose tissue. Within the lumens of the blood vessels and lymphatics, there are a large number of similar tumor cells.

Spinal cord: The adipose tissue present outside the dura matter of the spinal cord has been infiltrated by a large number of similar tumor cells as those seen in the mediastinal mass with minimal infiltration into the dura matter and occasionally the perivascular spaces in the leptomeninges but with no infiltration in the white and gray matters of the spinal cord. Within the white matter, there is scattered axonal swelling but no evident myelin injury. In addition, tumor cells could also be observed in the lumen of the blood vessels of spinal cord.

Lungs: The alveolar walls become thicker with high cellularity due to the infiltration of normal lymphocytes and macrophages along with some similar tumor cells.

Liver: Around the central veins and within the portal triads, there are infiltrates of a moderate number of similar tumor cells. Similar tumor cells are also present in the blood vessels and sinusoids.

Kidney: Large numbers of tumor cells infiltrate in the interstitium of both kidneys. Similar tumor cells can also be observed in the large arteries at the corticomedullary junction and the connective tissue around the pelvic region.

Spleen: The normal architecture of the white pulp has been replaced by numerous similar tumor cells. The capsule and adjacent adipose tissue are also infiltrated by the similar tumor cells. Additionally, moderate numbers of megakaryocytes and hemosiderin-ladened macrophages are also present in the red pulp of the spleen.

Heart: Areas of mild infiltration of similar tumor cells are randomly distributed in the myocardium. The tunica media and adventitia of the coronary arteries become thicker with some tumor cells present in the lumen.

Brain: Varying numbers of similar tumor cells are found in the blood vessels of the parenchyma and meninges of the cerebrum and cerebellum.

Pituitary gland: The adenohypophysis has been infiltrated by a moderate number of similar tumor cells.

Lymph node: The normal architecture of the lymph node has been destroyed and effaced by similar tumor cells. Tumor invasion is evident in the adipose tissue adjacent to the lymph node and also in the lumens of the blood vessels.

Immunohistochemical (IHC) Stainings: The IHC stainings reveal that the tumor cells are strong CD3-positive but CD79α-negative, suggestive of T cell in origin.

Morphologic Diagnosis: Thymic/mediastinal lymphoma and leukemia with systemic metastasis, including lymph node, heart, lungs, liver, kidney, spleen, GI tract, epidural adipose tissue of spinal cord (distal cervical to the end of lumbar vertebrae), meninges of brain, and pituitary gland

Comments: Owing to that the cranial mediastinal mass is the largest tissue having been replaced by the neoplastic lymphoid cells in the present case, thymic lymphoma or lymphoma arising from the mediastinal lymph node is considered on the basis of the anatomic position. However, it is not possible to further differentiate these two possibilities at this stage. The strong CD3 positivity of the tumor cells indicates that the cells are T cell in origin. The frequently observed neoplastic lymphoid cells within the vascular channels in multiple organs indicate that the lymphoma has entered the terminal stage with the development of leukemia. It is considered that the forelimb paralysis was caused by the tumor metastasis and compression to the distal cervical and proximal lumbar spinal cord with subsequent development of axonal swelling.

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Case Number: 303 **Chinese Society of Comparative Pathology, July 2008**

Jing-Lan Liu (劉淨蘭), MD; Pei-Yi Chu, MD; Kun-Tu, Yeh, MD
Department of Pathology, Changhua Christian Hospital, Changhua (彰化基督教醫院病理科)

CASE HISTORY:

Signalment: 56-year-old female

Clinical History: This patient is a housewife denying any past history. She suffered from cough more than two months. Therefore she came to the outpatient department of our division, and the physical examination showed no specific findings. The chest X-ray revealed increased focal patchy density on the left lower lung field, and the CT scan of chest showed pulmonary sequestration in the left lower lung. But the aortography showed no evidence of pulmonary sequestration. Surgical treatment was suggested and she was admitted for wedge resection of left lower lobe of lung.

Clinical Pathology:
BCS: Glucose (PC): 101 mg/dl, ALT: 30 U/L, BUN: 18.2 mg/dl, creatinine: 0.8 mg/dl, Na: mEq/L, K: 4.0 mEq/L

CBC: within normal limit

Clinical Image Studies:
CXR: suspect infiltrative lesion superimposed on the left cardiac phrenic region

CT: an ovoid shape low density lesion in the left lower lung field with gas bubble, extrapulmonary lesion such as pulmonary sequestration, DDx empyema

Aortography: no prominent vascular branch was noted from the aorta to the left lower lung, no evidence of pulmonary sequestration

Other Studies: Pulmonary function test: within normal limit

Gross lesion: The specimen submitted consists of a wedge resected pulmonary tissue fragment measuring 9x8x2cm in size, and 59gms in weight, in fresh state. Grossly, it is red and elastic with fibrosis.

Case Number: 303 **Chinese Society of Comparative Pathology, July 2008**

Jing-Lan Liu (劉淨蘭), MD; Pei-Yi Chu, MD; Kun-Tu, Yeh, MD
Department of Pathology, Changhua Christian Hospital, Changhua (彰化基督教醫院病理科)

CASE RESULT:

Histologic description: Microscopically, sections show a picture of solitary fibrous tumor consisting of spindle cells, arranged in short, ill-defined fasicles or patternless pattern with hyalinization. Areas of pseudoangiectatic spaces lined by spindle or multinucleated mesenchymal tumor cells with hyalinzed vessels of varying sizes are also noted. The immunohistochemical study reports CD34(+), CD99(+), Bcl-2(+), Vimentin(+), SMA(-), Myogenin(-), ALK(-), PAS(-) for the tumor cells.

Morphlogic diagnosis: Solitary fibrous tumor, giant cell variant (giant cell angiofibroma)

Comment: Hemangiopericytom-solitary fibrous tumor (HPC-SFT) is a rare mesenchymal tumor mainly observed in middle aged adults with no sex predilection. Classic solitary fibrous tumor (SFT) formerly considered to be restricted to the pleura. Actually, it can be identified anywhere in the subcutaneous tissue or deep soft tissue, particularly thoracic wall, mediastinum, abdominal cavity, retroperitoneum, head and neck region, as well as extremities. The tumor arising from pleura is usually discovered by incidental findings, but larger one may attribute some compression symptoms.

Most HPC-SFTs are presented as a well-circumscribed mass in the soft tissue or as an exophytic lesion from the serosal surface. It can measure 1 – 25 cm and has a whitish and firm appearance on cut section. Myxoid, cystic degeneration and hemorrhagic change are occasionally seen.

The histologic appearance of HPC-SFTs is highly variable depending on the proportion of tumor cells and stroma components. The cellular end of this spectrum corresponds to classic hemangiopericytoma, and the hyalinized end to classic solitary fibrous tumor. The classic SFT consists of mainly spindle cells arranged in short, ill-defined fascicles or so called “patterless” architecture. The hyalinized keloid-like collagen is a characteristic of SFT. Cracking artifacts developed between the tumor cells and collagen or between collagen fibers. The tumor cells are round to spindle shape with little cytoplasm, indistinct cell borders, and dispersed chromatin within vesicular nuclei.

Several variants of HPC-SFT are identified including lipomatous HPC-SFT, meningeal HPC-SFT and HPC-SFT with giant cells (giant cell angiofibroma). These variants were considered as different neoplasms in the past, but many evidences revealed that they have overlapping clinicopathologic and immunohistochemical features. Dei Tos first introduced the term “giant cell angiofibroma (GCA)” as a distinct entity of neoplasm in orbits based on a series of seven cases in 1995. Recently, GCAs were frequently discovered at extraorbital regions. GCAs, just like SFTs, are well-circumscribed lesions occurred mainly in adults. It shows all the histologic features of a classic SFT but is identified by pseudovascular spaces lined by multinucleated giant cells. Immunohistochemically, GCAs typically expressed CD34, CD99 and bcl2 and focal reactivity for smooth muscle actin and epithelial membrane antigen. It is similar to the immunoprofile of classic SFT.

The clinical behavior of GCA is generally benign, without an absence of invasion, low risk of recurrence even with positive margins and no record of metastasis. The treatment is

surgical resection, but because of its vascular nature, difficulty with hemostasis may be encountered. A recent publication has reported a response to external beam radiotherapy in a patient with persistent symptoms due to residual inoperable disease.

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Case Number: 304 **Chinese Society of Comparative Pathology, July 2008**

Yu-Xing Ding (丁宇星), DVM; Chen- Hsuan Liu (劉振軒), DVM, PhD; Chian-Ren Jeng (鄭謙仁), DVM, PhD*
School of Veterinary Medicine, National Taiwan University, Taipei (臺灣大學獸醫專業學院)

CASE HISTORY:

Signalment: 4-year-old male Tibetain Mastiff dog

History: The dog was presented to NTU VH on Octorber 3rd on account of the history of poor spirit, 22 kg weight loss, panting, and decreased frequency of barking in the past four to five months. A mass on left premolar gingiva was noted by owner as well two weeks ago. The dog was not responsive to chemotherapy and was euthanized. Necropsy for further diagnosis was performed.

Clinical pathology: Unremarkable results were found in routine examination of CBC (RBC, Hb, PCV, MCV, MCH, MCHC, WBC count) and clinical biochemistry (total protein, total bilirubin, ALKP, ALT, AST, glucose, amylase, BUN, Creatinine, Ca^{2+}, Na^{+}, K^{+}, Cl^{-}). In radiographic examination, there was a mass in about 1-2 width of rib present beneath trachea at cranial mediastinum.

Case Number: 304 **Chinese Society of Comparative Pathology, July 2008**

Yu-Xing Ding (丁宇星), DVM; Chen- Hsuan Liu (劉振軒), DVM, PhD; Chian-Ren Jeng (鄭謙仁), DVM, PhD*
School of Veterinary Medicine, National Taiwan University, Taipei (臺灣大學獸醫專業學院)

CASE RESULT:

Gross findings: At necropsy, multiple and variably sized of masses were found in the left premolar gingiva, cranial mediastinum, right caudal pulmonary lobe, bilateral kidneys, right mandibular lymph node, and lumbar-iliac lymph node. In the left premolar gingiva of maxilla, an encapsulated mass about 1×1×2 cm in size with firm texture bulged in the gingiva. In the cranial mediastinum, it presented an encapsulated, large, white to somewhat grayish and multiple-nodular mass sized 12×15×5 cm which located beneath the bifurcation of brachiocephalic artery and right subclavian artery and seemingly attached to it. In kidneys, approximately 90 percent parenchyma of left kidney was occupied and effaced by a large, white to somewhat grayish and multiple-nodular mass with frangible texture on cut surface. There was only a small and encapsulated mass bulging in the right kidney. Both right mandibular lymph node and lumbar-iliac lymph node became larger and swelling, and were also replaced by white to somewhat grayish tissue.

Histopathological findings: Microscopically, all specimens of mass present from involved organs display mainly similar but variable morphological features. Generally speaking, the encapsulated, multilobular, poorly demarcated, infiltrative, mostly densely cellular mass is observed in submucosa of left premolar gingival, cranial mediastinum, alveolar spaces, bronchi, and bronchiole of right caudal pulmonary lobe, most parenchyma in left kidney and focal cortex in right kidney, and the whole right mandibular lymph node and lumbar-iliac lymph node.

Most tumor cells arrange in closely packed and sheet structure with thick fibrous connective tissue in capsule and further separated by finely and irregularly fibrous to fibrovascular stroma, but the rosette-like growth pattern can also be observed as well in premolar gingival mass. The tumor cells display pleomorphic shape from round, oval, spindle, even to polygonal appearances with mostly distinctive cell borders, and eosinophilic, homogeneous and moderate amount of cytoplasm. The nuclei of tumor cells present predominately central located and round, oval to polygonal shape with one to two nucleoli and coarsely-stippled chromatin, but some elongate to spindle shaped nuclei of tumor cells can be detected as well. Mitoses range from 0 to 4 per HPF. Vascular invasion and lymphatic tumor emboli can be easily interpreted.

Immunohistochemistry: Specimens from left premolar gingiva, cranial mediastinum, right caudal pulmonary lobe, bilateral kidneys, and right mandibular lymph node are generally Vimentin positive and partial S-100 positive. However, they display cytokeratin, CD3, CD79a, chromogrnin A, synaptophysin, desmin, myoglobulin, PTAH (phosphotungstic acid haematoxylin), and HMB-45 negative.

Diagnosis: Sarcoma, multifocal, poorly differentiated, left 2nd to 3rd premolar gingiva, right mandibular lymph node, cranial mediastinum, caudal ventral lung, bilateral kidneys, lumbar-iliac lymph node, malignant, undetermined origin.

Comments: In present case, the variably polymorphic morphological changes and indecisive results of immunohistochemistry staining make it difficult to have specific

diagnosis and to find out the primitive origin of this tumor. Few suspected diagnosis were made based on the morphological features on H&E stain, which included large granular lymphoma, alveolar rhabdomyosarcoma, and neuroendocrine tumors. In order to differentiate these diagnoses and locate the possible origin, several different immunohistochemistry staining were performed. However, the characteristic features of these tumors in immunochemistry staining, such as positive CD serial markers in lymphoma, positive perinuclear granules of large granular lymphoma in phosphotungstic acid haematoxylin, the presence of striation of rhabdomyosarcoma in phosphotungstic acid haematoxylin and also desmin or myoglobulin – positive, and chromogrnin A or synaptophysin positive in neuroendocrine tumors, are all failed to be labeled by specific antibodies. The electromicroscopic examination of specimens is carrying on for the possibility of making conclusive diagnosis.

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Case Number: 305 **Chinese Society of Comparative Pathology, July 2008**

Ming-Tsung Lai (賴銘淙), MD, PhD
Department of Pathology, Chang Bing Show Chwan Memorial Hospital, Changhua (彰濱秀傳紀念醫院)

CASE HISTORY:

Signalment: 42-year-old female

Clinical History: A 42 y/o female had history of C/S twice for 15 and 20 years ago, pancreas cyst s/p in MK 85 at TON hospital. She suffered from left hip pain, left leg painful disability for 1-2 months. At first, she was sent to TON hospital for help and the bony original tumor of left hip bone with local and distant metastases to the aforementioned areas was noted by PET. Thus, she came to our orthopaedic OPD for further management. Under the impression of lymphoma or sarcoma, the biopsy will arrange and consultation with chset man for frozen secton of acetabulum and one lymph node in right sternocleidomastoid region then.

Gross Findings: The first biopsy specimen submitted consists of 5 pieces of bony tissue measuring up to 3.5X3X1 cm in size. The second biopsy specimen from neck, submitted, consists of a piece of soft tissue measuring 1.2X0.1X0.1 cm in size.

Case Number: 305 **Chinese Society of Comparative Pathology, July 2008**

Ming-Tsung Lai (賴銘淙), MD, PhD
Department of Pathology, Chang Bing Show Chwan Memorial Hospital, Changhua (彰濱秀傳紀念醫院)

CASE RESULT:

Histopathological Findings: Light microscopically, the sections appeared as follows: Bone shows a picture of necrotizing inflammation and fibrosis with abundant foamy histiocytes, macrophages, multinuclear giant cells and clear spores in the spaces

Histochemical Results: The fungi localized in the bone and soft tissue examined were positive for GMS, mucin, and PAS staining. The T.B bacilli were positive for acid-fast staining.

Immunohistochemical Results: The positive stain of CD68 , but negative for LCA, CD30, CD34, cytokeratin

Diagnosis: Cryptococosis and Tuberculosis in left acetabulum and neck soft tissue

Diagnostic Criteria:
1. Crytococcus: GMS, PAS and Mucin stain in capsule and confirmed by culture
2. Tuberculosis: Acid-fast stain and confirmed by culture or PCR

Discussion: The most common site of skeletal involvement by tuberculosis is the spine. Peripheral joint involvement can affect the synovium, bone and cartilage. Presentation as a tumor mass is unusual, especially combined with cryptococosis. Tuberculosis of bone mimicking a lytic bone tumor in few literatures. The lytic bone lesions have a broad differentiatiated diagosis including benign causes: nonossifying fibroma, metaphyseal fibrous cortical defect, osteoid osteoma, osteoblastoma, bony cyst, giant cell tumor, Labgerhan's cell histiocytosis. Malignant processes include osteosarcoma, fibrosarcoma,lymphoma, metastatic carcinoma, multiple myoma. Infectious lytic bone lesions are most commonly due to gram-positive organisms causing osteomyelitis, thougn gram negative, anaerobic, or atypical organism may also be found. The gold standard for diagnosing bone lesions is a biopsy, with additional laboratory testing as indicated.

In a study by Nichols et al, the presence of granulomas correlated with opportunistic infection in 80 % of 102 cases. In total, six patients had C. neoformans, five of whom had organisms detected by direct staining of bony marrow biopsy specimens. Disseminated cryptococcal disease is often associated with immunodeficient states. Th diagnosis is usually made using standard antigen tests on serum and cerebrospinal fluid in patients with known immunodeficiency. Often, blood and cerebrospinal fluid cultures also yield Cryptococcus neofornans. The diagnosis remained elusive until a bone marrow aspiration, performed as part of an evaluation for suspected neoplasm, revealed the offending organism.

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中華民國比較病理學會章程

第一章　總則

第一條　本會定名為中華民國比較病理學會，英文名稱為 Chinese Society of Comparative Pathology (CSCP) (以下簡稱本會)

第二條　本會依內政部人民團體法設立，為非營利目的之社會團體，以結合人類醫學與動物醫學資源，提倡比較病理學之研究與發展，交換研究教學心得，聯絡會員友誼及促進國際間比較醫學之交流為宗旨。

第三條　本會以全國行政區域為組織區域，會址設於主管機關所在地區，並得報經主管機關核准設主分支機構。前項分支機構組織簡則由理事會擬訂，報請主管機關核准後行之。會址及分支機構之地址於設置及變更時應報請主管機關核備。

第四條　本會之任務如左：

一、　提倡比較病理學之研究與發展。

二、　舉辦學術演講會、研討會及相關訓練課程。

三、　建立國內比較醫學相關資料庫。

四、　發行比較病理學相關刊物。

五、　促進國內、外比較醫學之交流。

六、　其他有關比較病埋學術發展之事項。

第五條　本會之主管機關為內政部。目的事業主管機關依章程所訂之宗旨與任務，主要為行政院衛生署及農業委員會，其目的事業應受各該事業主管機關之指導與監督。

第二章　會員

第六條　本會會員申請資格如下：

一、　一般會員：贊同本會宗旨，年滿二十歲，具有國內外大專院校(或同等學歷)生命科學及其它相關科系畢業資格或高職畢業從事生命科學相關工作滿兩年者。

二、　學生會員：贊同本會宗旨，在國內、外大專院校生命科學或其它相關科系肄業者 (檢附學生身份證明)。

三、　贊助會員：贊助本會工作之團體或個人。

四、　榮譽會員：凡對比較病理學術或會務之推展有特殊貢獻，經理事會提名並經會員大會通過者。

前項一、二、三項會員申請時應填具入會申請書，經一般會員二人之推薦，經理事會通過，並繳納會費。學生會員身份改變成一般會員時，得再補繳一般會員入會費之差額後，即成為一般會員，榮譽會員免繳入會費與常年會費。

第七條　一般會員有表決權、選舉權、被選舉與罷免權，每一會員為一權。贊助會員、學生會員與榮譽會員無前項權利。

第八條　會員有遵守本會章程、決議及繳納會費之義務。

第九條　會員有違反法令、章程或不遵守會員大會決議時，得經理事會決議，予以警告或停權處分，其危害團體情節重大者，得經會員大會決議予以除名。

第十條　會員喪失會員資格或經會員大會決議除名者，即為出會。

第十一條　會員得以書面敘明理由向本會聲明退會。但入會費與當年所應繳納的常年會費不得申請退費。

第三章　組織及職員

第十二條　本會以會員大會為最高權力機構。

第十三條　會員大會之職權如下：

一、　訂定與變更章程。

二、　選舉及罷免理事、監事。

三、　議決入會費、常年會費、事業費及會員捐款之方式。

四、　議決年度工作計畫、報告、預算及決算。

五、　議決會員之除名處置。

六、　議決財產之處分。

七、　議決本會之解散。

八、　議決與會員權利義務有關之其他重大事項。

前項第八款重大事項之範圍由理事會訂定之。

第十四條　本會置理事十五人，監事五人，由會員選舉之，分別成立理事會、監事會。

選舉前項理事、監事時，依計票情形得同時選出候補理事五人，候補監事一人，遇理事或監事出缺時，分別依序遞補之。

本屆理事會得提出下屆理事及監事候選人參考名單。

第十五條　理事會之職權如下：

一、　審定會員之資格。

二、　選舉及罷免常務理事及理事長。

三、　議決理事、常務理事及理事長之辭職。

四、　聘免工作人員。

五、　擬訂年度工作計畫、報告、預算及決算。

六、　其他應執行事項。

第十六條　理監事置常務理事五人，由理事互選之，並由理事就常務理事中選舉一人為理事長。

理事長對內綜理監督會議，對外代表本會，並擔任會員大會、理事會主席。

理事長因事不能執行職務時，應指定常務理事一人代理之，未指定或不能指定時，由常務理事互推一人代理之。

理事長或常務理事出缺時，應於一個月內補選之。

第十七條　監事會之職權如左：

一、監察理事會工作之執行。

二、審核年度決算。

三、選舉及罷免常務監事。

四、議決監事及常務監事之辭職。

五、其他應監察事項。

第十八條　監事會置常務監事一人，由監事互選之，監察日常會務，並擔任監事會主席。

常務監事因事不能執行職務時，應指定監事一人代理之，未指定或不能指定時，由監事互推一人代理之。監事會主席（常務監事）出缺時，應於一個月內補選之。

第十九條　理事、監事均為無給職，任期三年，連選得連任。理事長之連任以一次為限。

第二十條　理事、監事有下列情事之一者，應即解任：

一、喪失會員資格。
二、因故辭職經理事會或監事會決議通過者。
三、被罷免或撤免者。
四、受停權處分期間逾任期二分之一者。

第二十一條　本會置祕書長一人，承理事長之命處理本會事務，令置其他工作人員若干人，由理事長提名經理事會通過後聘免之，並報主管機關備查。但祕書長之解聘應先報主管機關核備。
前項工作人員不得由選任之職員（理監事）擔任。
工作人員權責及分層負責事項由理事會令另定之。

第二十二條　本會得設各種委員會、小組或其它內部作業組織，其組織簡則由理事會擬定，報經主機關核備後施行，變更時亦同。

第二十三條　本會得由理事會聘請無給顧問若干人，其聘期與理事、監事之任期同。

第四章　會議

第二十四條　會員大會分定期會議與臨時會議兩種，由理事長召集，召集時除緊急事故之臨時會議外應於十五日前以書面通知之。定期會議每年召開一次，臨時會議於理事會過半數認為必要，或經會員五分之一以上之請，或監事會半數函請召集時召開之。

第二十五條　會員不能親自出席會員大會時，得以書面委託其他會員代理，每一會員以代理一人為限。

第二十六條　會員大會之決議，以出席人數過半之同意行之。但章程之訂定與變更、會員之除名、理事及監事之罷免、財產之處置、本會之解散及其他與會權利義務有關之重大事項應有出席人數三分之二以上同意。但本會如果辦理法人登記後，章程之變更應以出席人數四分之三以上之同或全體會員三分之二以上書面之同意行之。

第二十七條　理事會及監事會至少每六個月各舉行會議一次，必要時得召開聯席會議或臨時會議。
前項會議召集時除臨時會議外。應於七日以以書面通知，會議之決議各以理事、監事過半數之出席，出席人較多數之同意行之。

第二十八條　理事應出席理事會議，監事應出席監事會議，不得委託出席；理事、監事連續二次無故缺席理事會、監事會者，視同辭職。

第五章　經費及會計

第二十九條　本會經費來源如下：
一、入會費：一般會員新台幣壹仟元，學生會員壹佰元，贊助會員伍仟元，於入會時繳納.
二、常年會費：一般會員新台幣五佰元，學生會員壹佰元.
三、事業費.
四、會員捐款.
五、委託收益.
六、基金及其孳息.
七、其他收入.

第三十條　本會會計年度以國曆年為準，自每年一月一日起至十二月三十一日止。

第三十一條　本會每年於會計年度開始前二個月由理事會編造年度工作計劃、收支預算表、員工待遇表，提會員大會通過（會員大會因故未能如期召開者，先提理監事聯席會議通過），於會計年度開始前報主管機關核備．並於會計年度終了後二個月內由理事會編造年度工作報告、收支決算表、現金出納表、資產負債表、財產目錄及基金收支表，送監事會審核後，造具審核意見書送還理事會，提會員大會通過，於三月底前報主管機關核備（會員大會未能如期召開者，需先報主管機關備查）．

第三十二條　本會解散後，剩餘財產歸屬所在地之地方自治團體或主管機關指定之機關團體所有．

第三十三條　本章程未規定事項，悉依有關法令規定辦理。

第三十四條　本章程經大會通過，報經主管機關核備後施行，變更時亦同。

第三十五條　本章程經本會民國八十五年二月四日第一屆第一次會員大會通過，並報經內政部 85 年 3 月 14 日台(85)內社字第 8507009 號函准予備查。

中華民國比較病理學會
第一次至第四十二次比較病理學研討會病例分類一覽表

分類	病例編號	診斷	動物別	提供單位
腫瘤	1.	Myxoma	Dog	美國紐約動物醫學中心
	2.	Chordoma	Ferret	美國紐約動物醫學中心
	3.	Ependymoblastoma	Human	長庚紀念醫院
	8.	Synovial sarcoma	Pigeon	美國紐約動物醫學中心
	18.	Malignant lymphoma	Human	長庚紀念醫院
	19.	Malignant lymphoma	Wistar rat	國家實驗動物繁殖及研究中心
	24.	Metastatic thyroid carcinoma	Human	省立新竹醫院
	25.	Chordoma	Human	新光吳火獅紀念醫院
	34.	Interstitial cell tumor	Dog	中興大學獸醫學系
	35.	Carcinoid tumor	Human	長庚紀念醫院
	36.	Hepatic carcinoid	Siamese cat	美國紐約動物醫學中心
	38.	Pheochromocytoma	Ferret	美國紐約動物醫學中心
	39.	Extra adrenal pheochromocytoma	Human	新光吳火獅紀念醫院
	40.	Mammary gland fibroadenoma	Rat	國家實驗動物繁殖及研究中心
	41.	Fibroadenoma	Human	省立豐原醫院
	42.	Canine benign mixed type mammary gland tumor	Pointer bitch	中興大學獸醫學系
	43.	Phyllodes tumor	Human	台中榮民總醫院
	44.	Canine oral papilloma	Dog	台灣大學獸醫學系
	45.	Squamous cell papilloma	Human	中國醫藥學院
	47.	Lung: metastatic carcinoma associated with cryptococcal infection. Liver: metastatic carcinoma. Adrenal gland, right: carcinoma (primary)	Human	三軍總醫院
	56.	Gastrointestinal stromal tumor	Human	台中榮民總醫院
	59.	Colonic adenocarcinoma	Dog	美國紐約動物醫學中心
	62.	Submucosal leiomyoma of stomach	Human	頭份為恭紀念醫院
	64.	1.Adenocarcinoma of sigmoid colon 2.Old schistosomiasis of rectum	Human	省立新竹醫院
	71.	Myelolipoma	Human	台北耕莘醫院

72.	Reticulum cell sarcoma	Mouse	國家實驗動物繁殖及研究中心
73.	Hepatocellular carcinoma	Human	新光吳火獅紀念醫院
74.	Hepatocellular carcinoma induced by aflatoxin B1	Wistar strain rats	台灣省農業藥物毒物試驗所
81.	Angiomyolipoma	Human	羅東博愛醫院
82.	Inverted papilloma of prostatic urethra	Human	省立新竹醫院
84.	Nephrogenic adenoma	Human	國泰醫院
86.	Multiple myeloma with systemic amyloidosis	Human	佛教慈濟綜合醫院
87.	Squamous cell carcinoma of renal pelvis and calyces with extension to the ureter	Human	台北病理中心
88.	Fibroepithelial polyp of the ureter	Human	台北耕莘醫院
90.	Clear cell sarcoma of kidney	Human	台北醫學院
93.	Mammary gland adenocarcinoma, complex type , with chondromucinous differentiation	Dog	台灣大學獸醫學系
94.	1.Breast, left, modified radical mastectomy, showing papillary carcinoma, invasive 2.Nipple, left, modified radical mastectomy, papillary carcinoma, invasive 3.Lymph node, axillary, left, lymphadenectomy, palillary carcinoma, metaststic	Human	羅東聖母醫院
95.	Transmissible venereal tumor	Dog	中興大學獸醫學系
96.	Malignant lymphoma, large cell type, diffuse, B-cell phenotype	Human	彰化基督教醫院
97.	Carcinosarcomas	Tiger	台灣養豬科學研究所
98.	Mucinous carcinoma with intraductal carcinoma	Human	省立豐原醫院
99.	Mammary gland adenocarcinoma, type B, with pulmonary metastasis, BALB/cBYJ mouse	Mouse	國家實驗動物繁殖及研中心
100.	Malignant fibrous histiocytoma and paraffinoma	Human	中國醫藥學院
102.	Pleomorphic adenoma (benign mixed tumor)	Human	佛教慈濟綜合醫院
103.	Atypical central neurocytoma	Human	新光吳火獅紀念醫院
104.	Cardiac schwannoma	SD rat	國家實驗動物繁殖及研究中心
109.	Desmoplastic infantile ganglioglioma	Human	高雄醫學院
107.	1.Primary cerebral malignant lymphoma 2.Acquired immune deficiency syndrome	Human	台北市立仁愛醫院

111.	Schwannoma	Human	三軍總醫院
114.	Osteosarcoma	Dog	美國紐約動物醫學中心
115.	Mixed germ-cell stromal tumor, mixed sertoli cell and seminoma-like cell tumor	Dog	美國紐約動物醫學中心
116.	Krukenberg's Tumor	Human	台北病理中心
117.	Primary insular carcinoid tumor arising from cystic teratoma of ovary.	Human	花蓮慈濟綜合醫院
119.	Polypoid adenomyoma	Human	大甲李綜合醫院
120.	Gonadal stromal tumor	Human	耕莘醫院
122.	Gestational choriocarcinoma	Human	彰化基督教醫院
123.	Ovarian granulosa cell tumor	Horse	中興大學獸醫學系
129.	Kaposi's sarcoma	Human	華濟醫院
131.	Basal cell carcinoma (BCC)	Human	羅東聖母醫院
132.	Transmissible venereal tumor	Dog	臺灣大學獸醫學系
137	Canine Glioblastoma Multiforme in Cerebellopontine Angle	Dog	中興大學獸醫病理研究所
143	Osteosarcoma associated with metallic implants	Dog	紐約動物醫學中心
144	Radiation-induced osteogenic sarcoma	Human	花蓮慈濟綜合醫院
145	Osteosarcoma, osteogenic	Dog	臺灣大學獸醫學系
146	Pleomorphic rhabdomyosarcoma	Human	行政院衛生署新竹醫院
147	Papillary Mesothelioma of pericardium	Leopard	屏東科大學獸醫學系
148	Cystic ameloblastoma	Human	台北醫學院
149	Giant cell tumor of bone	Canine	中興大學獸醫學院
150	Desmoplastic small round cell tumor (DSRCT)	Human	華濟醫院
152	Hepatocellular carcinoma	Human	羅東聖母醫院
158	Hemangiopericytoma	Human	羅東聖母醫院
160	Cardiac fibroma	Human	高雄醫學大學病理學科
166	Nephroblastoma	Rabbit	紐約動物醫學中心
168	Nephroblastoma	Pig	台灣動物科技研究所
169	Nephroblastoma with rhabdomyoblastic differentiation	Human	高雄醫學大學病理科
172	Spindle cell sarcoma	Human	羅東聖母醫院
174	Juxtaglomerular cell tumor	Human	新光醫院病理檢驗科
190	Angiosarcoma	Human	高雄醫學大學病理學科
192	Cardiac myxoma	Human	彰化基督教醫院病理科
194	Kasabach-Merrit syndrome	Human	慈濟醫院病理科

195	Metastatic hepatocellular carcinoma, right atrium	Human	新光醫院病理科
197	Papillary fibroelastoma of aortic valve	Human	新光醫院病理科
198	Extraplacental chorioangioma	Human	耕莘醫院病理科
208	Granulocytic sarcoma (Chloroma) of uterine cervix	Human	高雄醫學大學病理學科
210	Primary non-Hodgkin's lymphoma of bone, diffuse large B cell, right humerus	Lymphoma	彰化基督教醫院病理科
213	Lymphoma, multi-centric type	Dog	中興大學獸醫系
214	CD30 (Ki-1)-postitive anaplastic large cell lymphoma (ALCL)	Human	新光醫院病理科
215	Lymphoma, mixed type	Koala	台灣大學獸醫學系
217	Mucosal associated lymphoid tissue (MALT) lymphoma, small intestine	Cat	臺灣大學獸醫學研究所
218	Nasal type NK/T cell lymphoma	Human	高雄醫學大學病理科
222	Acquired immunodeficiency syndrome (AIDS)with disseminated Kaposi's sarcoma	Human	慈濟醫院病理科
224	Epithelioid sarcoma	Human	彰化基督教醫院病理科
226	Cutaneous B cell lymphoma , eyelid , bilateral	Human	羅東聖母醫院病理科
227	Extramammary Paget's disease (EMPD) of the scrotum	Human	萬芳北醫皮膚科,病理科
228	Skin, back, excision, CD30+diffuse large B cell lymphoma, Soft tissue, leg , side not stated, excision, vascular leiomyoma	Human	高雄醫學大學附設醫院病理科
231	Malignant melanoma, metastasis to intra-abdominal cavity	Human	財團法人天主教耕莘醫院病理科
232	Vaccine-associated rhabdomyosarcoma	Cat	台灣大學獸醫學系
233	1. Pleura: fibrous plaque, 2. Lung: adenocarcinoma, 3. Brain: metastatic adenocarcinoma	Human	高雄醫學大學附設中和醫院病理科
235	1. Neurofibromatosis, type I 2. Malignant peripheral nerve sheath tumor (MPNST)	Human	花蓮慈濟醫院病理科
239	Glioblastoma multiforme	Human	羅東聖母醫院
240	Pineoblastoma	Wistar rat	綠色四季
241	Chordoid meningioma	Human	高醫病理科
243	Infiltrating lobular carcinoma of left breast with meningeal carcinomatosis and brain metastasis	Human	花蓮慈濟醫院病理科
245	Microcystic Meningioma.	Human	耕莘醫院病理科
247	Well-differentiated fetal adenocarcinoma without lymph node	Human	新光吳火獅紀念醫院

		metastasis		
	249	Adenocarcinoma of lung.	Human	羅東聖母醫院
	252	Renal cell carcinoma	Canine	國立台灣大學獸醫學系獸醫學研究所
	253	Clear cell variant of squamous cell carcinoma, lung	Human	高雄醫學大學附設中和醫院病理科
	256	Metastatic adrenal cortical carcinoma	Human	耕莘醫院病理科
	258	Hashimoto's thyroiditis with diffuse large B cell lymphoma and papillary carcinoma	Human	高雄醫學大學附設中和醫院病理科
	262	Medullar thyroid carcinoma	Canine	臺灣大學獸醫學系
	264	Merkel cell carcinoma	Human	羅東博愛醫院
	266	Cholangiocarcinoma	Human	耕莘醫院病理科
	268	Sarcomatoid carcinoma of renal pelvis	Human	花蓮慈濟醫院病理科
	269	Mammary Carcinoma	Canine	中興大學獸醫學系
	270	Metastatic prostatic adenocarcinoma	Human	耕莘醫院病理科
	271	Malignant canine peripheral nerve sheath tumors	Canine	臺灣大學獸醫學系
	272	Sarcomatoid carcinoma, lung	Human	羅東聖母醫院
	273	Vertebra,T12,laminectomy, metastatic adenoid cystic carcinoma	Human	彰化基督教醫院
	274	rhabdomyosarcoma	Canine	臺灣大學獸醫學系
	275	Fetal rhabdomyosarcoma	SD Rat	中興大學獸醫學系
	276	Adenocarcinoma, metastatic, iris, eye	Human	高雄醫學大學
	277	Axillary lymph node metastasis from an occult breast cancer	Human	羅東博愛醫院
	278	Hepatocellular carcinoma	Human	國軍桃園總醫院
	279	Feline diffuse iris melanoma	Faline	中興大學獸醫學系
	280	Metastatic malignant melanoma in the brain and inguinal lymph node	Human	花蓮慈濟醫院病理科
	281	Tonsil Angiosarcoma	Human	羅東博愛醫院
	282	Malignant mixed mullerian tumor	Human	耕莘醫院病理科
	283	Renal cell tumor	Rat	中興大學獸醫學系
	284	Multiple Myeloma	Human	花蓮慈濟醫院病理科
	285	Myopericytoma	Human	新光吳火獅紀念醫院
	287	Extramedullary plasmacytoma with amyloidosis	Canine	臺灣大學獸醫學系
	288	Metastatic follicular carcinoma	Human	羅東聖母醫院病理科
	289	Primitive neuroectodermal tumor (PNET), T-spine.	Human	羅東博愛醫院病理科
	292	Hemangioendothelioma of bone	Human	花蓮慈濟醫院病理科
	293	Malignant tumor with perivascular epithelioid differentiation, favored malignant PEComa	Human	彰化基督教醫院
細菌	6.	Tuberculosis	Monkey	臺灣大學獸醫學系
	7.	Tuberculosis	Human	省立新竹醫院
	12.	H. pylori-induced gastritis	Human	台北病理中心

13.	Pseudomembranous colitis	Human	省立新竹醫院
26.	Swine salmonellosis	Pig	中興大學獸醫學系
27.	Vegetative valvular endocarditis	Pig	台灣養豬科學研究所
28.	Nocardiosis	Human	台灣省立新竹醫院
29.	Nocardiosis	Largemouth bass	屏東縣家畜疾病防治所
32.	Actinomycosis	Human	台灣省立豐原醫院
33.	Tuberculosis	Human	苗栗頭份為恭紀念醫院
53.	Intracavitary aspergilloma and cavitary tuberculosis, lung.	Human	羅東聖母醫院
54.	Fibrocalcified pulmonary TB, left Apex. Mixed actinomycosis and aspergillosis lung infection with abscess DM, NIDDM.	Human	林口長庚紀念醫院
58.	Tuberculous enteritis with perforation	Human	佛教慈濟綜合醫院
61.	Spirochetosis	Goose	國立嘉義農專獸醫科
63.	Proliferative enteritis (*Lawsonia intracellularis* infection)	Porcine	屏東縣家畜疾病防治所
68.	Liver abscess (Klebsillae pneumoniae)	Human	台北醫學院
77.	1. Xanthogranulomatous inflammation with nephrolithiasis, kidney, right. 2. Ureteral stone, right.	Human	羅東聖母醫院
79.	Emphysematous pyelonephritis	Human	彰化基督教醫院
89.	1. Severe visceral gout due to kidney damaged 2. Infectious serositis	Goose	中興大學獸醫學系
108.	Listeric encephalitis	Lamb	屏東縣家畜疾病防治所
113.	Tuberculous meningitis	Human	羅東聖母醫院
134.	Swine salmonellosis with meningitis	Swine	中興大學獸醫學系
135.	Meningoencephalitis, fibrinopurulent and lymphocytic, diffuse, subacute, moderate, cerebrum, cerebellum and brain stem, caused by Streptococcus spp. infection	Swine	國家實驗動物繁殖及研究中心
140	Coliform septicemia of newborn calf	Calf	屏東縣家畜疾病防治所
161	Porcine polyserositis and arthritis （Glasser's disease）	Pig	中興大學獸醫學院
162	Mycotic aneurysm of jejunal artery secondary to infective endocarditis	Human	慈濟醫院病理科
170	Chronic nephritis caused by Leptospira spp	Pig	中興大學獸醫學院
173	Ureteropyelitis and cystitis	Pig	中國化學製藥公司

	254	Pulmonary actinomycosis.	Human	耕莘醫院病理科
	259	Tuberculous peritonitis	Human	彰化基督教醫院病理科
	260	Septicemic salmonellosis	Piglet	屏東科技大學獸醫系
	261	Leptospirosis	Human	慈濟醫院病理科
	267	Mycobacteriosis	Soft turtles	屏東科技大學獸醫系
	290	*Staphylococcus* spp. infection	Formosa Macaque	中興大學獸醫病理學研究所
	291	Leptospirosis	Dog	台灣大學獸醫學系
病毒	21.	Newcastle disease	Chickens	台灣大學獸醫學系
	22.	Herpesvirus infection	Goldfish	台灣大學獸醫學系
	30.	Demyelinating canine distemper encephalitis	Dog	台灣養豬科學研究所
	31.	Adenovirus infection	Malayan sun bears	台灣大學獸醫學系
	50.	Porcine cytomegalovirus infection	Piglet	台灣省家畜衛生試驗所
	55.	Infectious laryngo-tracheitis (Herpesvirus infection)	Broilers	國立屏東技術學院獸醫學系
	69.	Pseudorabies (Herpesvirus infection)	Pig	台灣養豬科學研究所
	78.	Marek's disease in native chicken	Chicken	屏東縣家畜疾病防治所
	92.	Foot- and- mouth disease (FMD)	Pig	屏東縣家畜疾病防治所
	101.	Swine pox	Pig	屏東科技大學獸醫學系
	110.	Pseduorabies	Piglet	國立屏東科技大學
	112.	Avian encephalomyelitis	Chicken	國立中興大學
	128.	Contagious pustular dermatitis	Goat	屏東縣&台東縣家畜疾病防治所
	130.	Fowl pox and Marek's disease	Chicken	中興大學獸醫學系
	133.	Japanese encephalitis	Human	花蓮佛教慈濟綜合醫院
	136	Viral encephalitis, polymavirus infection	Lory	美國紐約動物醫學中心
	138	1.Aspergillus spp. encephalitis and myocarditis 2.Demyelinating canine distemper encephalitis	Dog	台灣大學獸醫學系
	153	Enterovirus 71 infection	Human	彰化基督教醫院
	154	Ebola virus infection	African Green monkey	行政院國家科學委員會實驗動物中心
	155	Rabies	Longhorn Steer	台灣大學獸醫學系
	163	Parvoviral myocarditis	Goose	屏東科技大學獸醫學系

	199	SARS	Human	台大醫院病理科
	200	TGE virus	swine	臺灣動物科技研究所
	201	Feline infectious peritonitis(FIP)	Feline	台灣大學獸醫學系
	209	Chicken Infectious Anemia (CIA)	Layer	屏東防治所
	219	1.Lymph node:Lymphdenitis, with lymphocytic depletion and intrahistiocytic basophilic cytoplasmic inclusion bodies. Etiology consistent with Porcine Circovirus(PCV)infection. 2.Lung: Bronchointerstitial pneumonia,moderate, lymphoplasmacytic, subacute.	Pig	臺灣動物科技研究所
	220	Cytomegalovirus colitis	Human	彰化基督教醫院病理科
	221	Canine distemper virus Canine adenovirus type ll co-infection	Canine	國家實驗動物繁殖及研究中心
	223	1. Skin, mucocutaneous junction (lip): Cheilitis, subacute, diffuse, sever, with epidermal pustules, ballooning degeneration, proliferation, and eosinophilic intracytoplasmic inclusion bodies, Saanen goat. 2. Haired skin: Dermatitis, proliferative, lymphoplasmacytic, subacute, diffuse, sever, with marked epidermal pustules, ballooning degeneration, acanthosis, hyperkeratosis, and eosinophilic intracytoplasmic inclusion bodies.	Goat	台灣動物科技研究所
	238	Hydranencephaly	Cattle	國立屏東科技大學獸醫學系
	248	Porcine Cytomegalovirus (PCMV) infection	Swine	國立屏東科技大學獸醫學系
	250	Porcine respiratory disease complex (PRDC) and polyserositis, caused by co-infection with pseudorabies (PR) virus, porcine circovirus type 2 (PCV 2), porcine reproductive and respiratory syndrome (PRRS) virus and *Salmonella typhimurium*.	Swine	屏東縣家畜疾病防所
	255	Vaccine-induced canine distemper	gray foxes	國立台灣大學獸醫學系
	265	Bronchointerstitial pneumonia (PCV II infection)	Swine	台灣大學獸醫學系
	295	Feline infectious peritonitis (FIP)	Cat	中興大學獸醫病理所
黴菌	23.	Chromomycosis	Human	台北病理中心
	47.	Lung: metastatic carcinoma associated with cryptococcal infection. Liver: metastatic carcinoma.	Human	三軍總醫院

		Adrenal gland, right: carcinoma (primary)		
	48.	Adiaspiromycosis	Wild rodents	台灣大學獸醫學系
	52.	Aspergillosis	Goslings	屏東縣家畜疾病防治所
	53.	Intracavitary aspergilloma and cavitary tuberculosis, lung.	Human	羅東聖母醫院
	54.	Fibrocalcified pulmonary TB, left Apex. Mixed actinomycosis and aspergillosis lung infection with abscess DM, NIDDM.	Human	林口長庚紀念醫院
	105.	Mucormycosis Diabetes mellitus	Human	花蓮佛教慈濟綜合醫院
	127.	Eumycotic mycetoma	Human	花蓮佛教慈濟綜合醫院
	138	1.Aspergillus spp. encephalitis and myocarditis 2.Demyelinating canine distemper encephalitis	Dog	台灣大學獸醫學系
寄生蟲	14.	Dirofilariasis	Dog	台灣省家畜衛生試驗所
	15.	Pulmonary dirofilariasis	Human	台北榮民總醫院
	20.	Sparganosis	Human	台北榮民總醫院
	46.	Feline dirofilariasis	Cat	美國紐約動物醫學中心
	49.	Echinococcosis	Human	台北榮民總醫院
	60.	Intestinal capillariasis	Human	台北馬偕醫院
	64.	1.Adenocarcinoma of sigmoid colon 2.Old schistosomiasis of rectum	Human	省立新竹醫院
	66.	Echinococcosis	Chapman's zebra	台灣大學獸醫學系
	67.	Hepatic ascariasis and cholelithiasis	Human	彰化基督教醫院
	106.	Parasitic meningoencephalitis, caused by Toxocara canis larvae migration	Dog	臺灣養豬科學研究所
	139	Disseminated strongyloidiasis	Human	花蓮佛教慈濟綜合醫院
	141	Eosinophilic meningitis caused by Angiostrongylus cantonensis	Human	台北榮民總醫院病理檢驗部
	156	Parastrongylus cantonensis infection	Formosan gem-faced civet	中興大學獸醫學院
	157	Capillaria hepatica, Angiostongylus cantonensis	Norway Rat	行政院農業委員會農業藥物毒物試驗所
	202	Colnorchiasis	Human	高雄醫學院附設醫院
	203	Trichuriasis	Human	彰化基督教醫院

	204	Psoroptes cuniculi infection (Ear mite)	Rabbit	農業藥物毒物試驗所
	205	Pulmonary dirofilariasis	Human	和信治癌中心醫院
	206	Capillaries philippinesis	Human	和信治癌中心醫院
	207	Adenocarcinoma with schistosomiasis	Human	花蓮佛教慈濟綜合醫院
	286	Etiology- consistent with *Spironucleus* (*Hexamita*) *muris*	Rat	國家實驗動物繁殖及研究中心
原蟲	4.	Cryptosporidiosis	Goat	台灣養豬科學研究所
	15.	Amoebiasis	Lemur fulvus	台灣養豬科學研究所
	16.	Toxoplasmosis	Squirrel	台灣養豬科學研究所
	17.	Toxoplasmosis	Pig	屏東技術學院獸醫學系
	51.	Pneumocystis carinii pneumonia	Human	台北病理中心
	57.	Cecal coccidiosis	Chicken	中興大學獸醫學系
	65.	Cryptosporidiosis	Carprine	台灣養豬科學研究所
	211	Avian malaria, African black-footed penguin	Avian	臺灣動物科技研究所
	242	Neosporosis	Cow	國立屏東科技大學獸醫學系
	263	Intestinal amebiasis	Human	彰化基督教醫院病理科
立克次體	229	Necrotizing inflammation due to scrub typhus	Human	佛教慈濟醫院病理科
	251	Scrub typhus with diffuse alveolar damage in bilateral lungs.	Human	佛教慈濟醫院病理科
皮膚	216	Cytophagic histiocytic panniculitis with terminal hemophagocytic syndrome	Human	佛教慈濟綜合醫院病理科
其它	9.	Perinephric pseudocyst	Cat	台灣大學獸醫學系
	10.	Choledochocyst	Human	長庚紀念醫院
	11.	Bile duct ligation	Rat	中興大學獸醫學系
	37.	Myositis ossificans	Human	台北醫學院
	75.	Acute yellow phosphorus intoxication	Rabbits	中興大學獸醫學系
	76.	Polycystic kidney bilateral and renal failure	Cat	美國紐約動物醫學中心
	151	Osteodystrophia fibrosa	Goat	台灣養豬科學研究所&台東縣家畜疾病防治所
	80.	1.Glomerular sclerosis and hyalinosis, segmental, focal, chronic, moderate 2.Benign hypertension	SHR rat	國防醫學院 & 國家實驗動物繁殖及研究中心
	83.	Phagolysosome-overload nephropathy	SD rats	實驗動物繁殖中心
	85.	Renal amyloidosis	Dog	台灣養豬科學研究所
	89.	1.Severe visceral gout due to kidney damaged	Goose	中興大學獸醫學系

	2.Infectious serositis		
91.	Hypervitaminosis D	Orange-rumped agoutis	台灣大學獸醫學系
118.	Cystic endometrical hyperplasia	Dog	臺灣養豬科學研究所
121.	Cystic subsurface epithelial structure (SES)	Dog	國科會實驗動物中心
124.	Superficial necrolytic dermatitis	Dog	美國紐約動物醫學中心
125.	Solitary congenital self-healing histiocytosis	Human	羅東博愛醫院
126.	Alopecia areata	Mouse	實驗動物繁殖及研究中心
142	Avian encephalomalacia (Vitamin E deficiency)	Chicken	國立屏東科技大學獸醫學系
159	Hypertrophic cardiomyopathy	Pig	台灣大學獸醫學系
165	Chinese herb nephropathy	Human	三軍總醫院病理部及腎臟科
167	Acute pancreatitis with rhabdomyolysis	Human	慈濟醫院病理科
171 183	Malakoplakia Darier's disease	Human Human	彰化基督教醫院 高雄醫學大學病理科
191	1. Polyarteritis nodosa 2. Hypertrophic Cardiomyopathy	Feline	台灣大學獸醫學系
193	Norepinephrin cardiotoxicity	Cat	台中榮總
196	Cardiomyopathy (Experimental)	Mice	綠色四季
212	Kikuchi disease (histiocytic necrotizing lymphandenitis)	Lymphandenitis	耕莘醫院病理科
225	Calcinosis circumscripta, soft tissue of the right thigh, dog	Dog	台灣大學獸醫所
230	Hemochromatosis, liver, bird	Bird	台灣大學獸醫學系
234	Congenital hyperplastic goiter	Holstein calves	屏東縣家畜疾病防治所
236	Hepatic lipidosis (fatty liver)	Rats	中興大學獸醫學病理學研究所
237	Arteriovenous malformation (AVM) of cerebrum	Human	耕莘醫院病理科
244	Organophosphate induced delayed neurotoxicity in hens	Hens	中興大學獸醫學病理學研究所
257	Severe lung fibrosis after chemotherapy in a child with Ataxia-Telangiectasia	Human	慈濟醫院病理科
294	Arteriovenous malformation of the left hindlimb	Dog	台灣大學獸醫學系

會 員 資 料 更 新 服 務

各位會員：

您好！如果您的會員資料有更新或誤刊情形，麻煩您填妥表格後寄回學會秘書處或電話連絡：

中華民國比較病理學會秘書處
10617 臺北市大安區羅斯福路四段 1 號
國立臺灣大學獸醫系三館 106 室 蕭世烜秘書長 收
Tel: (02) 33663858
Fax: (02) 23682423
e-mail address: shsiao1@ntu.edu.tw

----------中華民國比較病理學會----------

會員資料更改卡

姓　　名：_____　　會員類別：□一般會員
□學生會員
□贊助會員

最高學歷：_____
服務單位：_____職　　稱：_____
永久地址：_____
通訊地址：_____
電　　話：_____傳　　真：_____
E-Mail Address：_____

中華民國比較病理學會
誠摯邀請您加入

入　會　辦　法

一、本會會員申請資格為：

（一）一般會員：贊同本會宗旨，年滿二十歲，具有國內外大專院校（或同等學歷）生命科學及其它相關科系畢業資格或高職畢業從事生命科學相關工作滿兩年者。

（二）學生會員：贊同本會宗旨，在國內、外大專院校生命科學或其他相關科系肄業者（請檢附學生身份證明）。

（三）贊助會員：贊助本會工作之團體或個人。

（四）榮譽會員：凡對比較病理學術或會務之推廣有特殊貢獻，經理事會提名並經會員大會通過者。

二、會員：

（一）入 會 費：一般會員新台幣一仟元，學生會員一佰元，贊助會員伍仟元，於入會時繳納。

（二）常年會費：一般會員新台幣伍佰元，學生會員一佰元。

【註：學生會員身份變更為一般會員時，只需繳交一般會員之常年會費】

三、請填妥入會申請表郵寄或傳真方式寄回中華民國比較病理學會秘書處收。

地址：10617 臺北市大安區羅斯福路四段 1 號 國立臺灣大學獸醫系三館 106 室
蕭世烜秘書長 收

電話：02-33663858、傳真 02-23682423。

中華民國比較病理學會入會申請及會員卡

會籍電腦編號 _____

姓名	中文		性別	男 □ 女 □	出生	民國　年　月　日 身分證字號	出生地	省 縣/市
	英文		會員身份: □一般 □學生 □贊助					

學歷	(1)	稱謂(請圈選) 先生 小姐 醫師 獸醫師	
		研究員 博士 教授 主任 其他: _____	
	(2)	研究興趣	(1)
	(3)		(2)
	(4)		(3)

	機關名稱	職務	起	止
主要經歷			年　月	年　月
			年　月	年　月
			年　月	年　月
現職			年　月	年　月

通訊地址: 現在　　電話：　　傳真：

永久　　電話：　　傳真：

電子郵遞(E-mail)地址：

茲　贊　同

貴會宗旨擬加入爲會員嗣後並願遵守一切規章共圖發展

此　　致

中華民國比較病理學會

申請人　　簽章

介紹人　　簽章

介紹人　　簽章

中華民國　　年　　月　　日

審核結果