

Chinese Society of Comparative Pathology

中華民國比較病理學會

第 73 次比較病理學研討會

免疫媒介疾病專題

(Immune-mediated Diseases)



主辦單位

Chinese Society of Comparative Pathology

中華民國比較病理學會

醫療財團法人羅許基金會羅東博愛醫院

August 12, 2018 (中華民國 107 年 8 月 12 日)

SCHEDULE
73th MEETING OF COMPARATIVE PATHOLOGY
 中華民國比較病理學會 第 73 次比較病理學研討會
 免疫媒介疾病專題

時間：107 年 8 月 12 日(星期日)

地點：醫療財團法人羅許基金會羅東博愛醫院 住院大樓五樓大禮堂

地址：宜蘭縣羅東鎮南昌街 83 號

電話：0963750228

Time (時間)	Schedule (議程)		Moderator (主持)
08:30~09:20	Registration (報到)		
09:20~09:30	Opening Ceremony (致詞) 許永祥 理事長/ 施洽雯主任		
09:30~10:30	專題演講	專題演講者：蘇桂英 醫師 (慈濟大學醫學系專任助理教授) 題目：IgG4-related disease 之診斷治療新進展	張惠雯 秘書長
10:30~11:00	Coffee Break (拍團體照)		
11:00~11:25	Case 504	Shih, Chia-Wen (施洽雯) , M.D., M.S. ¹ , Yeh, Hsuen-Tang (葉顯堂), M.D. ² 1.Department of Pathology, Lotung Poh-Ai Hospital (羅東博愛醫院病理科) 2.Department of General Surgery, Lotung Poh-Ai Hospital (羅東博愛醫院一般外科)	張惠雯 秘書長
11:25~11:50	Case 505	Yang, Yu-Chieh (楊雨潔) , MD Student; Hsu Yung-Hsiang (許永祥), MD. School of Medicine, Tzu Chi University, Hualien, Taiwan (佛教慈濟綜合醫院暨慈濟大學)	張惠雯 秘書長
11:50~13:10	Lunch (餐廳) Board Meeting (理監事會議)		
13:10~13:35	Case 506	蘇雪妍 , 病理科 住院醫師; 陳燕麟, 病理科 主治醫師 天主教耕莘醫院	朱旆億 理事
13:35~14:00	Case 507	Li, Wen-Ta (李文達) , DVM, PhD; Jeng, Chian-Ren (鄭謙仁), DVM, PhD; Pang, Victor, Fei (龐飛), DVM, PhD; Wang, Fun-In (王汎熒), DVM, PhD; Liu, Chen-Hsuan (劉振軒), DVM, PhD; Chang, Hui-Wen (張惠雯), DVM, PhD. Graduate Institute of Molecular and Comparative Pathobiology, School of Veterinary Medicine, National Taiwan University (國立台灣大學獸醫專業學院分子暨比較病理生物學研究所)	朱旆億 理事
14:00~14:25	Case 508	Pei-Yi Chu (朱旆億) , MD, PhD; Ya-Tze Hsiau (蕭雅澤), MD. Department of Pathology, Show Chwan Memorial Hospital, Changhua, Taiwan (彰化秀傳醫院病理科)	朱旆億 理事
14:25~15:00	Coffee Break		

15:00~15:25	Case 509	Hao-Kai, Chang (張皓凱) , DVM, PhD candidate; Hue-Ying, Chiou (邱慧英), DVM, PhD Graduate Institute of Veterinary Pathobiology, National Chung Hsing University (國立中興大學獸醫病理生物學研究所)	劉振軒 常務理事
15:25~15:50	Case 510	Hou, Fu-Hsiang (侯富祥) , DVM, PhD candidate Graduate Institute of Veterinary Pathobiology, National Chung Hsing University (國立中興大學獸醫病理生物學研究所)	劉振軒 常務理事
16:00-16:50	General Discussion (綜合討論) 許永祥 理事長/劉振軒 常務理事		

目 錄

一、	Schedule (議程表)	1
二、	地圖	2
三、	目錄	3
四、	專題演講	4
五、	Case Diagnosis	5
六、	Comparative Pathology Case 504	6
	Comparative Pathology Case 505	13
	Comparative Pathology Case 506	16
	Comparative Pathology Case 507	19
	Comparative Pathology Case 508	22
	Comparative Pathology Case 509	25
	Comparative Pathology Case 510	28
六、	中華民國比較病理學會章程	31
七、	第八屆理監事名單簡歷冊	35
九、	106 年度各類經費表	37
十、	107 年度工作計劃	41
	107 年度收支預算表	42
八、	數位組織切片資料庫	43
九、	比較病理研討會病例分類一覽表	44
十、	會員資料更新服務	66
十一、	入會辦法	67
十二、	入會申請書	68

Special Lecture (專題演講)

題目：IgG4-related disease 之診斷治療新進展

蘇桂英

慈濟大學醫學系專任助理教授

IgG4-related disease (IgG4RD) 是一種近年才被定義出來的新疾病，以血清 IgG4 指數上升、受侵犯組織有大量 IgG4 染色呈陽性的漿細胞浸潤、纖維化為主要特徵。病人因受侵犯組織的慢性發炎及纖維化而造成腫大及傷害，嚴重者可造成器官衰竭而死亡。

IgG4RD 所影響的部位，除了大家熟知的胰臟、肝膽、唾腺與淚腺之外，也可影響幾乎全身各器官系統（如中樞神經、甲狀腺、肺、腸胃道、腎臟、攝護腺、後腹腔、淋巴結）。因為侵犯的部份不同導致臨床表現多變，要診斷 IgG4RD 頗具挑戰性。而過去不明原因纖維化疾病（如 Ormond's disease, Riedel's thyroiditis, sclerosing mesenteritis, and Mikulicz disease）目前都被歸類為 IgG4RD 的一員。

IgG4RD 對類固醇的治療反應很好，及時的正確診斷可以預防嚴重的併發症與不可逆的器官受損。有些病人則需要再加上免疫抑制劑或是標靶治療。然而，IgG4RD 不容易診斷，很重要的原因之一是臨床上目前沒有一個很好的生物標誌，血中的 IgG4 值上升雖然是 IgG4RD 的重要線索，卻也常造成誤導，因為 IgG4 值上升也可見於其他疾病（例如血管炎、修格蘭氏症、癌症、淋巴瘤、Castleman's disease）；另一方面，正常的血清 IgG4 值不能用來排除 IgG4RD 的可能。腫塊切片對於診斷很重要，其典型的表現為組織中浸潤著許多的 IgG4 漿細胞、淋巴球，及纖維化。這些漿細胞為多株性(polyclonal)，亦可以是寡株(oligoclonal)，之後轉化為惡性腫瘤如淋巴瘤的機會可能增加。

目前被廣泛用來診斷 IgG4RD 的診斷標準，是由日本厚生勞動省召集的研究群，於 2011 年首度提出的 IgG4RD 綜合診斷標準(Comprehensive diagnostic criteria for IgG4-related disease)。此綜合診斷標準是由三項基本要素組成：(1).臨床上有單個或多個典型的瀰漫性或局限性腫大；(2).血清 IgG4 值上升(≥ 135 mg/dL)；(3).具有組織學的兩項特徵，(i) 顯著的淋巴球及漿細胞浸潤及纖維化、(ii) IgG4 染色陽性漿細胞浸潤，即 IgG4/IgG 細胞比例 $>40\%$ ，且 IgG4 漿細胞 > 10 cells/HPF。這三項要素全部符合，則可確定(definite)診斷為 IgG4RD；若符合(1)臨床和(3)組織學，則為可能(probable)診斷；若只符合(1)臨床及(2)血清，而無組織學的證據，其診斷強度則下降至疑似(possible)。由此可知病理組織的表現於診斷 IgG4RD 的重要性。

另外，要特別注意可能的鑑別診斷，如惡性腫瘤(癌症、淋巴瘤)、或上述會造成血清 IgG4 上升的疾病。再者，若病人無法以綜合診斷標準來診斷為 IgG4RD，則另有器官特定的診斷標準可用來診斷。

MEETING OF COMPARATIVE PATHOLOGY
August 12, 2018
中華民國比較病理學會第 73 次比較病理學研討會
CASE DIAGNOSIS
73 cp slide website
1070812

Case No.	Presenter	Slide No.	Diagnosis
Case 504	Shih, Chia-Wen (施洽雯)	LP-1047	Autoimmune pancreatitis (IgG4 related pancreatitis). http://www.ivp.nchu.edu.tw/slide_view.php?id=1488
Case 505	Yang, Yu-Chieh (楊雨潔)	A2017-6a	Thrombotic microangiopathy with hemorrhagic infarct of brain, acute myocardial ischemia and acute kidney injury http://www.ivp.nchu.edu.tw/slide_view.php?id=1484
Case 506	蘇雪妍	375209E	Type B1 thymoma (stage pT1) http://www.ivp.nchu.edu.tw/slide_view.php?id=1494
Case 507	黃威翔 (代)	NTU2016829	The most likely diagnosis is erythema multiforme (EM). http://www.ivp.nchu.edu.tw/slide_view.php?id=1489
Case 508	Pei-Yi Chu (朱旆億)	618_5564	Metastatic melanoma http://www.ivp.nchu.edu.tw/slide_view.php?id=1483
Case 509	Hao-Kai, Chang (張皓凱)	27ST, 27SP, 27H	Doxorubicin-induced diseases http://www.ivp.nchu.edu.tw/slide_view.php?id=1492 http://www.ivp.nchu.edu.tw/slide_view.php?id=1491 http://www.ivp.nchu.edu.tw/slide_view.php?id=1490
Case 510	Hou, Fu-Hsiang (侯富祥)	CO16246A	Porcine reproductive and respiratory syndrome (PRRS) http://www.ivp.nchu.edu.tw/slide_view.php?id=1485

Case number: 504

Slide number: LP_1047

Slide view: http://www.ivp.nchu.edu.tw/slide_view.php?id=1488

Shih, Chia-Wen (施洽雯), M.D., M.S.¹; Yeh, Hsuen-Tang (葉顯堂), M.D.²

1. Department of Pathology, Lotung Poh-Ai Hospital (羅東博愛醫院病理科)

2. Department of General Surgery, Lotung Poh-Ai Hospital (羅東博愛醫院一般外科)

CASE HISTORY:

Signalment: 67-year-old man.

Clinical History:

A 67-year old man was referred to the Department of Gastroenterology of Lotung Poh-Ai Hospital by his LMD (Local Medical Doctor) with the problem of abdominal pain and a pancreatic tumor found by abdominal echo. Abdominal CT (computed tomography) showed a tumor in pancreatic body and measuring 3.1 x 2.2 x 1.8 cm. Focal delayed mild heterogenous contrast enhancement was noted. No significant distal pancreatic duct dilatation nor vascular involvement was identified. No other mass or lymph node was seen. Pancreatic cancer was suspected. The patient has past history of hypertension and under medical treatment for 10 years. No past history of diabetes mellitus. He underwent distal pancreatectomy with tumor resection. The specimen was sent to the Department of Pathology for pathologic diagnosis.

Macroscopically, the specimen submitted consisted of partial pancreas and a spleen. The pancreas measuring 7.2 x 3.4 x 2.1 cm with a tumor measuring 3.8 x 3.2 x 2.1 cm. The tumor was grayish-brown in color and elastic firm in consistency. No hemorrhage nor necrosis was noted.

Clinical Pathology:

BUN: 9 mg/dL (8-20 mg/dL), Creatinine: 0.9 mg/dL (0.7-1.3 mg/dL), Glucose: 151 mg/dL (70-100 mg/dL), Na: 140 mmol/L (135-145 mmol/L), K: 3.8 mmol/L (3.5-5.1 mmol/L), RBC: 4.26x10⁶/uL (4.6-6.2x10⁶/uL), Hb: 13.3 gm/dL (14.0-18.0 gm/dL), Hct: 39.3 % (40-54%), Plt: 19.6 x10⁴/dL (15-40 x10⁴/dL), WBC: 4900/uL (4500-11000/uL), Lymphocyte: 20.5% (20.0-45.0%), Neutrophil: 67.9% (45.0-75.0%), Monocyte:7.0% (0.0-9.0%), Eosinophil: 4.2% (1.0-3.0%), Basophil: 0.4% (0.0-1.0%) . Laboratory tests of tumor markers were within the normal range with CA-199: <0.8 U/mL (<37.00 U/mL), CEA: 4.35 ng/mL (<5.0 ng/mL).

CASE RESULT:

Histopathologic Findings:

Microscopically, the tumor showed marked destruction of the normal pancreatic tissue with some remained pancreatic tissue including poorly preserved pancreatic acini, nests of islet cells and proliferated small ducts. Some of the interlobular or intralobular ducts were dilated and infiltrated

or surrounded by chronic inflammatory cells with many plasma cells. Fibrosis, lymphoid follicles and eosinophils were also seen. No significant hemorrhage nor necrosis was noted.

Immunohistochemistry:

Sections of tissue specimen were subjected for immunohistochemical evaluation. On immunohistochemical analysis, the inflammatory cells were positive for CD3, CD20, CD138, IgG and IgG4.

Differential diagnosis:

1. Lymphoma.
2. Chronic pancreatitis.
3. Autoimmune pancreatitis.

Diagnosis: Autoimmune pancreatitis (IgG4 related pancreatitis).

Comments:

Sarles et al. first suspected autoimmune pancreatitis (AIP) in 1961 when they found an idiopathic chronic pancreatitis with hypergammaglobulinemia in a patient. Subsequently, most of the early literature about AIP came from Japan where the concept of AIP was first proposed in 1995 by Yoshida et al. In 2001, Hamano et al. reported increased serum levels of immunoglobulin G4 (IgG4) in patients with AIP. Subsequently in 2004 a critical milestone was reached when Kamisawa et al. found intensely positive IgG4 cells in extrapancreatic organ in AIP patients. Thus, the concept of IgG4-related systemic disease emerged. IgG4-related disease has been recently-recognized as a systemic inflammatory disorder characterized by stereotypic histopathological features of a dense lymphoplasmacytic infiltrate, “storiform” fibrosis, and obliterative phlebitis. It is a systemic process which may involve one or multiple organs, either synchronously or metachronously. A host of organ-specific pathologies previously thought to be unrelated are now recognized in the spectrum of IgG4-related disease, including: salivary glands (Mikulicz’s syndrome), thyroid gland (Riedel’s thyroiditis), orbit (orbital pseudotumor), aorta (non-infectious/inflammatory aortitis or periaortitis), pancreas (AIP), retroperitoneum (Ormond’s disease or retroperitoneal fibrosis), and kidneys (tubulointerstitial nephritis).

Two types of AIP, 1 and 2, are presently recognized, found to share overlapping histopathological and clinical characteristics, but also important differences.

Type 1 AIP belongs to the IgG4-related diseases which are immune-mediated and share clinical, pathological and serological features. These include the tumor-like enlargement of the involved organs, an inflammatory infiltration by lymphoplasmacytic cells with a predominance of IgG4-positive plasma cells, venulitis, extended sclerosis and fibrosis. Elevated serum levels of IgG4 are present in 60–70% of patients with IgG4-related disease. Type 1 AIP has a peak incidence in the

sixth or seventh decade of life and is at least twice as common in men as in women. In contrast, type 2 AIP does not belong to the IgG4-related diseases, affects younger patients in the fourth decade and is evenly distributed between genders. The histological features may include lymphoplasmacytic infiltrates, but these are mostly negative for IgG4 immunohistochemical staining. The characteristic histological feature is the infiltration by neutrophil granulocytes, sometimes being so dense to appear as micro-abscesses in ducts and lobules. The granulocytic infiltration frequently involves and destroys the epithelium of the pancreatic ducts, thus called granulocyte epithelial lesions.

The estimated prevalence in Japan, where AIP was first described, is 0.82 per 100,000 persons. Japanese series have estimated the prevalence of AIP in patients with chronic pancreatitis to be between 5% and 6%. Several series in the United States have reported that 2% to 3% of pancreatic resections had evidence of AIP at pathologic analysis. Type 1 AIP is the most common form worldwide, accounting for almost all cases in Japan and Korea and more than 80% of cases in Europe and the United States.

The presentation of AIP can be variable. It can be divided into an acute and a sub-acute phase. In the acute phase, the most common clinical presentation for both subtypes of AIP is obstructive jaundice, typically painless, or with mild epigastric pain. In the subacute phase, after initial treatment, AIP can present with pancreatic atrophy leading to steatorrhea resembling chronic pancreatitis. Diabetes mellitus (DM) or impaired fasting glucose is seen in up to 50% of patients with AIP. The clinical picture of pain and elevation of serum amylase is rare.

AIP is considered to be part of systemic IgG4-related disease, therefore, other organs can be involved prior, concomitant, or subsequent to pancreatic involvement. Thus type 1 patients can also present with manifestations, such as biliary disease, symptoms of Sjogren's disease, lung nodules, interstitial nephritis, retroperitoneal fibrosis, orbital pseudotumors, and diffuse or focal lymphadenopathy among others.

IgG4-related pancreatitis can be divided into three types, including diffuse, focal and multifocal. Diffuse type is the most common type of AIP, which represent a diffuse enlarged sausage-like pancreas. Focal type is less common and could manifest as a focal mass, which always involve the pancreatic head and the presentations can lead to a misdiagnosis as pancreatic malignancy.

The exact pathophysiology of AIP has yet to be fully elucidated. It is an inflammatory and fibrosing disease marked by pancreatic lymphoplasmacytic infiltrates. An autoimmune cause of AIP has been inferred due to the profound response to steroid therapy and the pancreatic infiltrates of various types of immune cells, including CD4-positive T-cells, IgG4-producing plasma cells (in type 1 AIP), and granulocytes (in type 2 AIP). The most striking observation is the association between

serum IgG4 and AIP. In healthy subjects, IgG4 constitutes the smallest fraction of total IgG in plasma (usually less than 5%) and elevation in serum IgG4 is seen in only a limited number of autoimmune and parasitic diseases.

The characteristics and image findings of IgG4-related diseases depend on the involved organs. Pancreatic imaging is essential in the diagnosis of AIP. It can be subdivided into pancreatic parenchymal imaging and pancreatic ductal imaging. Parenchymal imaging by CT scan or magnetic resonance imaging (MRI) is usually performed as part of initial work up of obstructive jaundice. Though MRI and CT have comparative results, the lower cost and more availability of CT has made it rapidly the imaging modality of choice to diagnose AIP.

The CT appearance of AIP was first described in 1998. In two case series' of five and three patients, CT demonstrated a diffusely enlarged pancreas in all patients. Some reports show diffuse enlargement has been shown among 11%-56% of patients; focal or mass-like enlargement among 28%-59% of patients; and no enlargement, or a normal appearance of the pancreas, in a minority of patients, 9%-16%.

The traditional 'gold standard' for the diagnosis of AIP is characteristic histology. AIP shows well-defined histopathological changes in the pancreas that are easily differentiated from changes occurring in other types of pancreatitis. The histopathological pattern of type 1 AIP is called lymphoplasmacytic sclerosing pancreatitis (LPSP). It is characterized by a periductal lymphoplasmacytic infiltrate, peculiar storiform fibrosis and obliterative phlebitis, and abundant IgG4 immunostaining (> 40% of IgG+ plasma cell positive for IgG4, and >10/HPF IgG4-positive cells). The histological hallmark of type 2 AIP is the presence of granulocytic epithelial lesions in pancreatic ducts, which can lead to duct destruction. Obliterative phlebitis is uncommon in type 2 AIP, and there are scant to no IgG4-positive cells.

Elevated IgG4 levels were thought to be a specific diagnostic tool for AIP, but some patients are seronegative and about 10% of patients are positive without having AIP. Hamano et al. recommended. A cut-off value of 135 mg/dL for serum IgG4 concentration to differentiate AIP from pancreatic cancer, which had an accuracy of 97%, a sensitivity of 95% and specificity of 97%. A Mayo Clinic cohort study including 45 AIP patients and 465 controls used a cut-off value of 140 mg/dl for IgG4 serum levels which gave a sensitivity, specificity and positive predictive value of 76%, 93% and 36% respectively. A meta-analysis of seven studies, evaluating the usefulness of serum IgG4 in diagnosing AIP, showed variation in sensitivity and specificity ranging from 67–94% and 89–100%, respectively. Type 1 AIP almost always has an elevated serum IgG4, whereas type 2 AIP most often does not have an elevated serum IgG4 level. It is important to keep in mind that up to 5% of control subjects and 10% of patients with pancreatic cancer may have elevated IgG4.

The tumor marker CA19-9 was considered to be specific for pancreatic cancer, but in 47–73% of cases with AIP, CA19-9 is elevated. Therefore, no single diagnostic test is sensitive and specific enough for AIP; rather, all the criteria have to be evaluated together combined with the clinical answer to treatment.

Many diagnostic criteria have evolved over the last 15 years and reflected different approaches of medical practice between East and West. The first sets of diagnostic criteria were established by the Japanese Pancreatic Society in 2002 and 2006 (JPS 2002, 2006) and consisted of three main items: characteristic radiographic findings (including endoscopic retrograde pancreatocholangiography), serology tests, and histopathological findings. IgG4 was added to the serological evaluation in JPS 2006.

In 2010 during the 14th Congress of the International Association of Pancreatology, the International Consensus Diagnostic Criteria (ICDC) were proposed in attempt to globally unify the AIP diagnostic criteria. The ICDC use the combination of 5 cardinal features for the diagnosis of AIP in adults: pancreatic imaging, serology, extrapancreatic manifestations (sclerosing cholangitis, renal mass or nephritis, retroperitoneal fibrosis, and submandibular masses), histology and immunostaining of the pancreas and steroid responsiveness.

AIP is a rare but important differential diagnosis from pancreatic cancer. This autoimmune disease can mimic pancreatic cancer by its clinical symptoms, including weight loss and jaundice. Furthermore imaging findings may include a mass of the pancreas. The varied appearance on cross-sectional imaging of AIP can make for a diagnostic quandary. For example, in a case series of the early clinical experience encompassing 37 patients with AIP between the years 1989 and 2005, 6 patients had been initially misdiagnosed with pancreatic cancer, and two patients had been initially misdiagnosed with biliary malignancy. In another early report, 9 patients among a series of 17 patients with AIP were initially suspected to have pancreatic cancer.

Unlike other forms of pancreatitis, AIP is very responsive to steroid therapy, therefore making therapy a component of the diagnostic criteria. For now, steroids remain the mainstay treatment of AIP, although the relapse rate is significant. Steroids have been shown not only to improve AIP symptoms, labs and radiographs, but also possibly prevent further complications such as sclerosing cholangitis, bile duct stenosis and retroperitoneal fibrosis. It is also important to keep in mind that changes in serum IgG4 levels vary with treatment and should not be used as a criterion to determine response to therapy. Moon et al. have suggested that two weeks may be sufficient to determine the response and if there is no improvement or if the CA 19-9 level is rising, then the diagnosis of AIP should be reconsidered and further efforts to rule out pancreatic cancer should be pursued.

A wide range of relapse rates after an initial course of steroids have been reported. Relapses are generally more common in type 1 AIP than in type 2 AIP. A large recent multinational analysis reported relapses in 31% of patients with type 1 AIP and 9% of patients with type 2 AIP after steroid discontinuation. Treatment of relapse is usually achieved with the same initial dose of corticosteroids,

Conclusion: AIP is a rare form of chronic pancreatitis that has only recently been recognized as a separate type of pancreatitis in the last two decades. Along with clinical, laboratory, and image data, histopathology plays an important role in the diagnosis and arrangement of AIP, and more broadly, within the spectrum of IgG4-related disease. For now, steroids remain the mainstay treatment of AIP, although the relapse rate is significant. Importantly, surgery is unnecessary.

References:

- 1 Klemperer P, Rabin CB. Primary neoplasm of the pleura: a report of five cases. *Arch Pathol* 1931; 11: 385-412.
2. Shanbhogue AK, Prasad SR, Takahashi N, Vikram R, Zaheer A, Sandrasegaran K. Somatic and visceral solitary fibrous tumors in the abdomen and pelvis: cross-sectional imaging spectrum. *Radiographics* 2011; 31: 393-408.
3. Zhang WD, Chen JY, Cao Y, Liu QY, Luo RG. Computed tomography and magnetic resonance imaging findings of solitary fibrous tumors in the pelvis: correlation with histopathological findings. *Eur J Radiol* 2011; 78: 65-70.
4. Wat SY, Sur M, Dhamanaskar K. Solitary fibrous tumor (SFT) of the pelvis. *Clin Imaging* 2008; 32: 152-156.
5. Gold JS, Antonescu CR, Hajdu C, Ferrone CR, Hussain M, Lewis JJ, Brennan MF, Coit DG. Clinicopathologic correlates of solitary fibrous tumors. *Cancer* 2002; 94: 1057-1068.
6. Yi B, Bewtra C, Yusef K, Silva E. Giant pelvic solitary fibrous tumor obstructing intestinal and urinary tract: a case report and literature review. *Am Surg* 2007; 73: 478-480.
7. England DM, Hochholzer L, McCarthy MJ. Localized benign and malignant fibrous tumors of the pleura. A clinicopathologic review of 223 cases. *Am J Surg Pathol* 1989; 13: 640-658.
8. Yokoi T, Tsuzuki T, Yatabe Y, Suzuki M, Kurumaya H, Koshikawa T, Kuhara H, Kuroda M, Nakamura N, Nakatani Y, Kakudo K. Solitary fibrous tumour: significance of p53 and CD34 immunoreactivity in its malignant transformation. *Histopathology* 1998; 32: 423-432.
9. Cranshaw IM, Gikas PD, Fisher C, Thway K, Thomas JM, Hayes AJ. Clinical outcomes of extra-thoracic solitary fibrous tumours. *Eur J Surg Oncol* 2009; 35: 994-998.

10. Zerón-Medina J, Rodríguez-Covarrubias F, García-Mora A, Guerrero-Hernandez M, Chablé-Montero F, Albores-Saavedra J, Medina-Franco H. Solitary fibrous tumor of the pelvis treated with preoperative embolization and pelvic exenteration. *Am Surg* 2011; 77: 112-113.
11. Wignall OJ, Moskovic EC, Thway K, Thomas JM. Solitary fibrous tumors of the soft tissues: review of the imaging and clinical features with histopathologic correlation. *AJR Am J Roentgenol* 2010;195:W55-62..
12. Mohajeri A, Tayebwa J, Collin A, et al. Comprehensive genetic analysis identifies a pathognomonic NAB2/ STAT6 fusion gene, non-random secondary genomic imbalances, and a characteristic gene expression profile in solitary fibrous tumor. *Genes Chromosomes Cancer* 2013;52:873–886.
13. Koelsche C, Schweizer L, Renner M, Warth A, Jones DT, Sahm F, Reuss DE, Capper D, Knosel T, Schulz B, Petersen I, Ulrich A, Renker EK, Lehner B, Pfister SM, Schirmacher P, von Deimling A, Mechttersheimer G: Nuclear relocation of STAT6 reliably predicts NAB2/STAT6 fusion for the diagnosis of Solitary Fibrous Tumour. *Histopathology* 2014; 65:613–622.
14. Rob JC Vogels, Myrella Vlenterie, Yvonne MH Versleijen-Jonkers, Emiel Ruijter, Elise M Bekers, Marian AJ Verdijk, Monique M Link, Johannes J Bonenkamp, Winette TA van der Graaf, Pieter J Slootweg, Albert JH Suurmeijer, Patricia JTA Groenenl and Uta Flucke: Solitary fibrous tumor – clinicopathologic, immunohistochemical and molecular analysis of 28 cases. *Diagnostic Pathology* 2014; 9:224-232.

Case number: 505

Slide number.: A2017-6a

Slide view: http://www.ivp.nchu.edu.tw/slide_view.php?id=1484

Yang, Yu-Chieh (楊雨潔), MD Student; Hsu Yung-Hsiang (許永祥), MD

School of Medicine, Tzu Chi University, Hualien, Taiwan (佛教慈濟綜合醫院暨慈濟大學)

CASE HISTORY:

Signalment: A 75-year-old female, retired worker.

Clinical History:

The patient presented with acute onset drowsiness and right hemiparalysis. Emergent brain MRI revealed (1) acute infarction over left lentiform nucleus; (2) scattered lacunar infarction; and (3) edematous change over bilateral basal ganglia, midbrain and central gyrus regions. She was transferred to MICU for further management. On the fifth day of MICU stay, inverted T waves on EKG monitor and increased Troponin I level (0.11 ug/L) were noticed. Due to the combination of hemolytic anemia (LDH 802 IU/L; DBI/TBI 0.53/1.53; haptoglobin <7.19mg/dL), thrombocytopenia (65000/uL) and acute neurological change, thrombotic thrombocytopenic purpura (TTP) was diagnosed. Peripheral RBC smear showed fragmented RBC, target cells, spherocytosis, leptocyte and poikilocytosis. Laboratory tests showed negative direct and indirect Coomb's tests; normal PT; and normal APTT. After plasma exchange, the patient's Hb level and platelet count increased. Her consciousness also improved but still couldn't obey order.

To differentiate the etiology of TTP, we tested for autoimmune antibody, which showed: ANA 1:40 (+) nucleolar pattern; anti-SSA positive and anti-SSB positive. Sjögren's syndrome with refractory autoimmune-associated TTP were diagnosed. However, the patient's condition worsened rapidly because of RUL lobar pneumonia. Her serum creatinine and BUN also increased. Despite the use of broad-spectrum antibiotic, she deceased due to acute respiratory failure and septic shock.

Clinical Pathology:

Blood test and biochemistry

Hb	8.7 g/dL	LDL	802 IU/L
WBC	6590/uL	DBI/TBI	0.53/1.53 mg/dL
Platelet	65000/uL	Haptoglobin	<7.9mg/dL

Autoimmune serology

ANA	1:40 (+), nuclear pattern	Anti-dsDNA	Negative
Anti-SSA	Positive	Anti-cardiolaptin IgG	Negative

Anti-SSB	Positive	Anti-cardiolaptin IgM	Negative
p-ANCA	Negative	Anti-CENPB	Negative
c-ANCA	Negative	Anti-RNP	Negative

Gross Findings:

At autopsy, the brain is measuring 800 g in weight and shows hemorrhagic infarct at basal ganglion. The heart is measuring 340 g in weight and shows left ventricular hypertrophy with LV wall measuring up to 3.0 cm in thickness. The right lung is measuring 910 g and the left lung is measuring 600 g in weight, both showing congested with some bronchopneumonia patches.

CASE RESULT:

Histopathologic Findings:

Microscopically, the submandibular gland shows >50 lymphocytes aggregate under 100x microscopic field, consistent with Sjögren's syndrome. The brain shows hemorrhagic infarction. The heart shows focal ischemic necrosis with granulation tissue formation, consistent with acute myocardial injury.. The kidney shows thrombotic microangiopathy with fibrin thrombi within glomeruli, which is the cause of acute kidney injury.

Platelet predominant (Factor VIII stain positive) thrombi involved capillary of brain, myocardium and glomeruli of kidney consistent with TTP.

Pathological Diagnosis:

1. Sjögren's syndrome, submandinular gland
2. Thrombotic microangiopathy with hemorrhagic infarct of brain, acute myocardial ischemia and acute kidney injury.

Differential Diagnosis:

1. Thrombotic thrombocytopenic purpura
2. Hemolytic uremic syndrome
3. Disseminated intravascular coagulation

Discussion:

The clinical information and histopathologic findings suggest thrombotic microangiopathy (TMA) in this case. TTP and hemolytic uremic syndrome (HUS) are both parts of the clinical spectrum of TMA. Previously these two TMAs are differentiated mainly on presence and severity of clinical symptoms including renal and neurologic injury [1]. Following recent discovery of ADAMTS13 protease, it has been reported that a severe deficiency (<5% or <10%) of ADAMTS13 could be identified in most patients with TTP in acute phase [2]. Clinically, TTP is characterized by the diagnostic pentad, including microangiopathic hemolytic anemia, consumptive thrombocytopenia,

neurologic symptoms, renal failure and fever [3]. Although our patient only presented with four features, it has been clearly demonstrated that less than 10% of the patients with acute TTP present all these 5 features [3]. Even though the result of ADAMTS13 is not available in our patient, we made the diagnosis of TTP in this patient based on clinical findings, including prominent neurological involvement, relatively late onset renal injury and good response of plasma exchange therapy.

End-organ dysfunction in TTP is mainly due to microvascular ischemia caused by accumulation of VWF multimers and subsequent platelet-rich microthrombi formation [3]. Renal and myocardial injury are observed in many patients with TTP. Neuroimaging findings in TTP include hematoma, ischemic infarctions and posterior reversible encephalopathy syndrome [4]. Hemorrhagic infarction is rare, but also reported [5]. In our patient, emboli may cause the cerebral infarction. Cerebral hemorrhage may develop following reperfusion of the infarcted tissue and thrombocytopenia.

TTP may be idiopathic or secondary to drugs, infectious agents, pregnancy, underlying malignancy and autoimmune disorders. The spectrum of autoimmune diseases that may cause secondary TTP is wide, which include SLE, rheumatoid arthritis, scleroderma, mixed connective tissue disease and dermatomyositis. TTP associated with SS is rare. A review of literature reveals only 12 cases reported of secondary TTP induced by Sjögren's syndrome [6]. Among these cases, TTP presented in 6 patients without previous diagnosis of Sjögren's syndrome, just as what happened in our case.

In conclusion, we report an autopsy case of Sjögren's syndrome presented with thrombotic thrombocytopenic purpura, complicated with hemorrhagic infarct of brain, acute myocardial injury and acute kidney injury. Thrombotic thrombocytopenic purpura is a rare complication of Sjögren's syndrome, and it may cause serious end-organ dysfunction.

References:

1. Cataland, S. R. and H. M. Wu (2013). "Atypical hemolytic uremic syndrome and thrombotic thrombocytopenic purpura: clinically differentiating the thrombotic microangiopathies." *Eur J Intern Med* 24 (6): 486-491.
2. Mariotte, E., et al. (2016). "Epidemiology and pathophysiology of adulthood-onset thrombotic microangiopathy with severe ADAMTS13 deficiency (thrombotic thrombocytopenic purpura): a cross-sectional analysis of the French national registry for thrombotic microangiopathy." *Lancet Haematol* 3 (5): e237-245
3. Joly, B. S., et al. (2017). "Thrombotic thrombocytopenic purpura." *Blood* 129 (21): 2836-2846.
4. Bakshi, R., et al. (1999). "Thrombotic thrombocytopenic purpura: brain CT and MRI findings in 12 patients." *Neurology* 52 (6): 1285-1288.
5. Alungal, J., et al. (2014). "Multiple hemorrhagic infarcts in thrombotic thrombocytopenic purpura." *Neurol India* 62 (5): 582-583
6. Xu, X., et al. (2018). "Sjögren's syndrome initially presented as thrombotic thrombocytopenic purpura in a male patient: a case report and literature review." *Clin Rheumatol* 37 (5): 1421-1426.

Case number: 506

Slide number: 375209E

Slide view: http://www.ivp.nchu.edu.tw/slide_view.php?id=1494

蘇雪妍, 病理科 住院醫師; 陳燕麟, 病理科 主治醫師

天主教耕莘醫院

Case report

A man with the Myasthenia gravis and type B1 thymoma

Clinical history

This 69 years old male patient had past history of type 2 DM, essential hypertension, GERD and left renal stone s/p ESWL. Last 2 weeks he suffered progressive weakness of neck muscle and drooping of right eyelid. He denied double vision, dysarthria and dysphagia. Sometime he felt head heaviness and hand support was needed. Shortness of breath off and on was also present. Therefore, he came to our neurology OPD. On neurological examination, proximal muscle weakness (especially deltoid and biceps muscles) after 20 times shoulder abduction movement was noted and no other neurological deficit was identified. Routine blood investigations and some autoimmune markers were checked. Anticholine receptor antibody level was elevated (109.4nmol/L) and Myasthenia gravis was diagnosed. He was arranged for further investigations and treatment. After admission, chest CT was done and right anterior mediastinum irregular mass was found. Plasmapheresis was done for 5 times before operation. Then video assistant thoracoscopic bilateral thymectomy was performed.

Clinical diagnosis

Myasthenia gravis with mediastinal tumor

Differential diagnosis of mediastinal tumor

1. Thymoma
2. Thymic follicular hyperplasia
3. Mediastinal lymphoma

Gross examination

Right thymus

- measuring 15 x 4.5 x 3 cm, weighing 60 gm.
- An encapsulated tumor (tumor size 4 x 4 x 3 cm in size). Pink-brown in color and soft in consistency

Left thymus

- measuring 10 x 3 x 1.5 cm, weighing 20 gm
- soft and brown with mixture of adipose and fibrous tissue

Microscopic findings

Microscopically, there are foci of mixtures of lymphocyte-rich and epithelial cells. The tumor cells were small polygonal cells with small round, oval pale nuclei showing dispersed chromatin and conspicuous nucleoli. Lobulated of variable size divided by prominent fibrous septa and focal

hemorrhage are also noticed.

Immunohistochemical stain

- CK19 (+++)
- CD20 focal (++)
- CD5 focal (++)
- CK20 (-)
- P63 (+) in epithelial cells
- TdT + T cells in cortical areas

Diagnosis: Type B1 thymoma (stage pT1)

Discussion

Myasthenia gravis is an autoimmune disorder characterized by weakness and fatigability of skeletal muscles. There are two clinical forms of myasthenia gravis: ocular and generalized. In ocular myasthenia, the weakness is limited to the eyelids and extraocular muscles. In generalized disease, the weakness commonly affects ocular muscles, but it also involves a variable combination of bulbar, limb, and respiratory muscles. In most patients, IgG1- dominant antibodies to acetylcholine receptors and a variable proportion possesses antibodies to muscle-specific tyrosine kinase (MuSK) while the remainder of seronegative MG is being explained through cell-based assays using a receptor-clustering technique and, to a lesser extent, proposed new antigenic targets. The majority of patients with AChR antibody positive myasthenia gravis have thymic abnormalities: hyperplasia in 60 to 70 percent and thymoma in 10 to 30 percent.

Thymoma is a neoplasm of thymic epithelial cells. WHO classified thymoma into: Type A thymoma, Type AB thymoma, Type B1 thymoma, Type B2 thymoma, Type B3 thymoma, Micronodular thymoma with lymphoid stroma, Metaplastic thymoma and other rare thymomas: microscopic, sclerosing and lipofibroadenoma. In the International Thymic Malignancy Interest Group (ITMIG) database, 26% of patients with type A thymoma, 18% of type AB thymoma, 35% of type B1 thymoma, 54% of type B2 thymoma and 50% of type B3 thymoma are associated with myasthenia gravis. In MG patients with a thymoma, the main aim is to treat the tumour rather than for any effect on the MG. Once thymoma is diagnosed, thymectomy is indicated irrespective of the severity of MG. Thymectomy should be performed only after stabilization of the MG. After thymectomy, the AChR antibody titer usually falls less in patients with thymoma than in those with thymic hyperplasia. When long-term immunosuppression is necessary, azathioprine is recommended to allow tapering the steroids to the lowest possible dose whilst maintaining azathioprine. MG often used to cause chronic, severe disability and had a high mortality. However, improved treatments allied with advances in critical care have transformed the long-term prognosis and life expectancy is now near normal.

References

1. Carr AS, Cardwell CR, McCarron PO, McConville J. A systematic review of population based epidemiological studies in Myasthenia Gravis. *BMC Neurol.* 2010;10:46. Epub 2010 Jun 18.
2. Mao ZF et al. Incidence of Thymoma in Myasthenia Gravis: A Systematic Review: *J Clin Neurol* 2012;8:161-169
3. Sophie Binks, Angela Vincent, Jacqueline Palace. Myasthenia gravis: a clinical-immunological update. *J Neurol.* 2016; 263: 826–834
4. Skeie G. O et al. Guidelines for treatment of autoimmune neuromuscular transmission disorders. *European Journal of Neurology* 2010, 17: 893–902
5. WHO Classification of Tumors of the lung, pleura, thymus and heart, 4th Edition, 2015. International Agency for Research on Cancer (IARC)

Case number.: 507

Slide number: NTU 2016-0829

Slide view: http://www.ivp.nchu.edu.tw/slide_view.php?id=1489

Li, Wen-Ta (李文達), DVM, MS; Jeng, Chian-Ren (鄭謙仁), DVM, PhD; Pang, Victor, Fei (龐飛), DVM, PhD; Wang, Fun-In (王汎葵), DVM, PhD; Liu, Chen-Hsuan (劉振軒), DVM, PhD; Chang, Hui-Wen (張惠雯), DVM, PhD

Graduate Institute of Molecular and Comparative Pathobiology, School of Veterinary Medicine, National Taiwan University (國立台灣大學獸醫專業學院分子暨比較病理生物學研究所)

CASE HISTORY

Signalment & History:

A ten year-old castrated male mixed dog received heartworm treatment (doxycycline and ivermectin) for several days. There were multiple areas of erythema, erosion, and hyperpigmentation were noted on the skin around belly and inguinal regions. Skin biopsy was performed.

Gross Findings:

No remarkable findings were noted in the submitted specimens.

CASE RESULT

Histopathological Findings:

Specimens show similar pathological findings. Microscopically, moderate numbers of lymphocytes and macrophages with plasma cells and scattered neutrophils are infiltrated along the dermal–epidermal junction, forming a band-like configuration. The infiltration also extends to superficial hair follicles. The dermal–epidermal junction is partially obscured with elongated/expanded rete ridges. Multifocally, the epidermis is irregularly and mildly thickening with spongiosis, and covered by thick layers of dense hyperkeratotic and parakeratotic keratin. Apoptosis of individualized keratinocytes, characterized by dark eosinophilic cytoplasm and a contracted nucleus, are easily seen at all levels of the epidermis and mainly surrounded by lymphocytes (satellitosis) with occasional presence of neutrophils. An intra-epidermal vesicle is also noted in the present specimen, can be associated with progressive keratinocyte apoptosis. No dermatophytes, *Demodex* spp., bacteria, or *Malassezia* spp. are noted.

Morphological Diagnosis:

Dermatitis, interface, multifocal to coalescing, moderate to severe, subacute, with apoptotic keratinocyte, intra-epidermal vesicle, and pigmentary incontinence, biopsied samples from skin nearby the penis and scrotum

Differential Diagnosis:

The major differential diagnoses of autoimmune and immune-mediated skin diseases are listed in figure 1 and table 1.

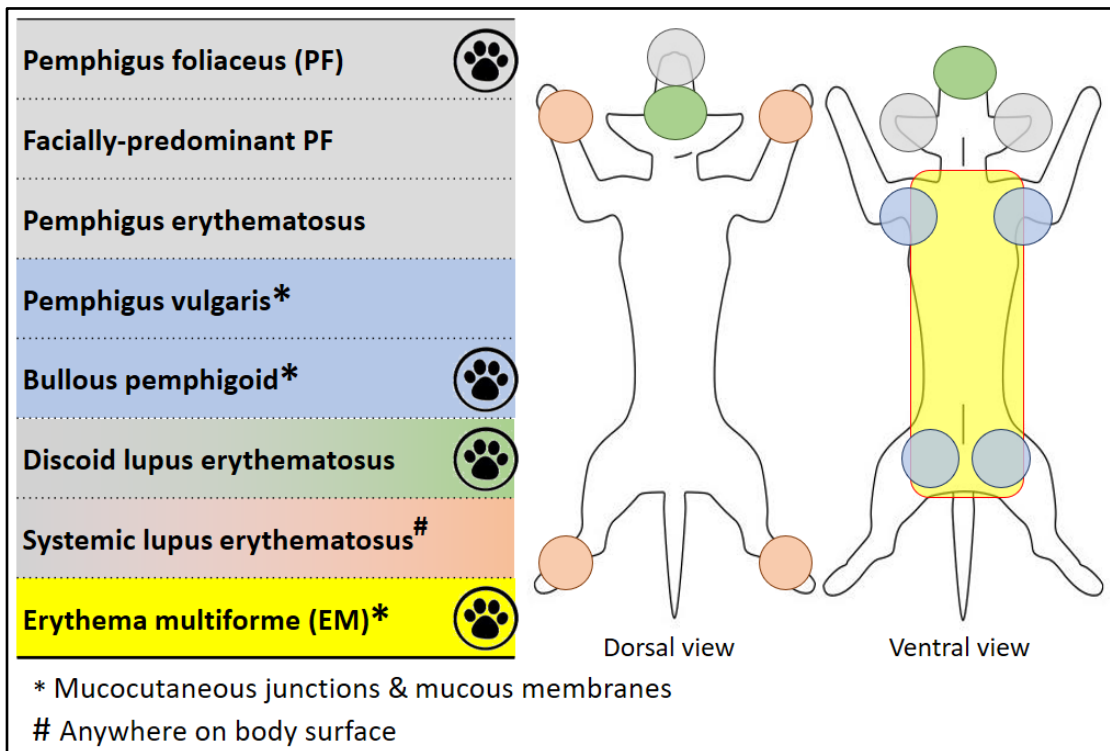


Figure 1. Lesion distributions of autoimmune and immune-mediated skin diseases in dogs.

Table 1. Histopathological features of autoimmune and immune-mediated skin diseases in dogs.

	Pustules	Cleft/vesicles	Keratinocyte		Lichenoid infiltration
			Acantholytic	Apoptotic	
Pemphigus foliaceus (PF)	+	-	+	-	-
Facially-predominant PF	+	-	+	+	+
Pemphigus erythematosus	+	-	+	±	+
Pemphigus vulgaris	+	+	+	-	+
Bullous pemphigoid	-	+	+	-	-
Discoid lupus erythematosus	-	+	-	+	+
Systemic lupus erythematosus	-	+	-	+	+
Erythema multiforme	-	+	-	+	+

Final Diagnosis:

Based on the lesion distributions and histopathological features, the most likely diagnosis is erythema multiforme (EM).

Discussion:

Due to the presence of apoptotic keratinocytes, interface dermatitis and lesion distribution, the erythema multiforme (EM) is the most likely diagnosis, but it still should be differentiated with lupus

erythematosus and pemphigus. Generally, lupus erythematosus has apoptosis principally confined to the basal cell layer, but discoid lupus erythematosus (DLE) may exhibit suprabasilar keratinocytes apoptosis, resemble EM. Nevertheless, the lesions of DLE are commonly restricted to the face, and previous studies suggest the suprabasilar keratinocytes apoptosis may represent direct solar damage to keratinocytes ('sunburn' cells). On the other hand, pemphigus generally involves the skin of dorsal muzzle, planum nasale, ear pinnae, periorbital skin, and pawpads. The characterized features are acantholytic keratinocytes (individualized, rounded, often brightly eosinophilic keratinocytes) within pustule. Occasionally, acantholysis without pustule formation may occur, and the affected keratinocytes are hyper eosinophilic, slightly rounded, and separated from the underlying epidermis.

Acantholytic keratinocytes are different from the keratinocytes apoptosis, which generally have a contracted nucleus. However, apoptosis of keratinocytes do occur in pemphigus (especially facially-predominant pemphigus foliaceus), but their apoptotic cells are mainly surrounded by neutrophils (neutrophilic satellitosis). The lesions of EM may occur anywhere, and body trunk, especially the glabrous skin of the groin and axillae, are frequently involved. The lesions of EM include apoptotic keratinocytes, interface dermatitis, and lymphocytic satellitosis. As above, considering the lesion distributions and histopathological features, the diagnosis of EM can be made. The exact pathogenesis of EM is unknown, but it is considered as a host-specific cell-mediated hypersensitivity directed against various keratinocyte-associated antigens (i.e., chemicals, drugs, infectious agents such as bacteria and viruses, or malignancies), which can alter the keratinocytes and make them become the target of an abnormal immune response.

The use of doxycycline was withdrawn after the result of histopathological examination was reported. The skin lesions of this dog was markedly improved after doxycycline withdrawal and corticosteroid treatment.

References:

1. Ackermann AL, Frank LA, McEntee MF, May ER. 2015. Erythema multiforme associated with zonisamide in a dog. *Vet Dermatol.* 26:391-392.
2. Boehm TMSA, Klinger CJ, Udraitel L, Mueller RS. 2017. Targeting the skin - erythema multiforme in dogs and cats. *Tieraerztl Prax K H.* 45:352-356.
3. Scott DW, Miller WH. 1999. Erythema multiforme in dogs and cats: literature review and case material from the Cornell University College of Veterinary Medicine (1988-96). *Vet Dermatol.* 1999;10:297-309.
4. Scott DW, Miller Jr WH, Griffin CE. Immune-mediated disorders. In: Muller & Kirk's small animal dermatology. 6th ed. Philadelphia: W.B. Saunders. 667-779.
5. Hnilica KA, Patterson AP. 2016. Autoimmune and immune-mediated skin disorders. In: Small animal dermatology - a color atlas and therapeutic guide. 4th ed. Elsevier Health Sciences. 245-301.

Case number: 508

Slide number: 618_5564

Slide view: http://www.ivp.nchu.edu.tw/slide_view.php?id=1483

Pei-Yi Chu (朱旒億), MD, PhD¹; Ya-Tze Hsiao (蕭雅澤), MD¹

¹ Department of Pathology, Show Chwan Memorial Hospital, Changhua, Taiwan (彰化秀傳醫院 病理科)

CASE HISTORY:

Signalment: A 83-year-old female with epigastric pain for a period of time

This 83-year-old female patient presented to Changhua Show Chwan Memorial Hospital because of epigastric discomfort for a period of time. Endoscopic evaluation for upper gastrointestinal tract was performed. Esophageal candidiasis, gastric ulcers and reflux esophagitis were impressive under the endoscopic evaluation. Endoscopic biopsy for the gastric ulcer was done.

Gross Findings:

The submitted specimen is composed of three pieces of tan soft tissue, measuring up to 0.5x0.4x0.3 cm in size, fixed in formalin. All for sections are taken.

CASE RESULT:

Histopathological Findings:

Microscopically, sections and re-cut sections show gastric mucosa with chronic inflammatory cells infiltration and edema in the lamina propria. There are also some atypical discohesive plasmacytoid cells infiltration in the lamina propria. The atypical cells exhibit hyperchromasia, nuclear enlargement, and variation in size and shape of nuclei. No obvious melanin pigments are seen. Immunohistochemical stain for these atypical cells show CD3 (-), CD20 (-), leukocyte common antigen (-), CD5 (-), Bcl-2 (-), CD138 (-), CK (-), and DOG-1 (-). Immunohistochemical stain for these atypical cells show Ki-67(+, 60%). The atypical cells are immunoreactive for S-100 protein, HMB-45 (Human Melanoma Black-45) and MiTF (Microphthalmia transcription factor), suggesting malignant melanoma. No *Helicobacter pylori* is present in the sections.

Pathological Diagnosis: Metastatic melanoma

Differential diagnosis:

1. Poorly differentiated adenocarcinoma
2. Plasmacytoma
3. Lymphoma

Discussion:

This is a very difficult case to our department for there is no any further information about the past history of this patient. At first, low grade lymphoma was impressed; therefore, lymphoma-associated markers (CD3, CD20, LCA, CD5, Bcl-2) were performed immunohistochemically but without any expression in these markers. Poorly differentiated carcinoma was excluded by the negative expression of cytokeratin. Plasmacytoma was also excluded by the negative expression of CD138. Cellular gastrointestinal stromal tumor was unlikely due to the morphologic pictures and no expression of DOG-1. Immunohistochemical stain for these atypical cells show Ki-67(+, 60%). The diagnosis of “chronic inflammation with some atypical cells” was firstly prepared to be signed out.

A past history of vulva melanoma 2 years ago was told and further immunohistochemical stain showed S-100 (+), HMB-45 (+) and MiTF (+). The final diagnosis was metastatic melanoma. Further image study showed multiple sites metastasis, including right lung, bilateral pleura, right neck, right thyroid, right adrenal gland, left kidney, liver, cervix, rectum, multiple lymph nodes, and bone.

Amelanotic melanoma is the most notorious mimickers and causes a lot of misdiagnosis and medicolegal issues in the field of diagnostic pathology. Amelanotic melanoma can mimic any types of cancer without the typical presence of melanin pigments. Gastrointestinal amelanotic melanomas are a rarely encountered diagnostic entity. It is very important to perform whole body survey, thorough history taking, and carefully body skin examination for the primary site outside the gastrointestinal tract, because the primary gastrointestinal amelanotic melanoma is exceedingly rare compared to the metastatic melanoma from sites other than gastrointestinal tract. Melanoma of unknown primary is assigned if no obvious skin melanoma is found.

We presented a patient with gastric metastatic melanoma from the primary vulvar origin. Widely multiple metastasis was also seen. After the diagnosis of multiple metastatic melanoma, the patient received palliative treatment due to limited therapeutic methods. This unusual case emphasizes the important of always keeping the possibility of the diagnostic entity of melanoma in mind when multiple panels of immunohistochemical stain failed to get a conclusion.

S-100, HMB-45, and MiTF are three useful markers in the aid of diagnosis for amelanotic melanoma. Traditionally, the treatment of primary melanoma includes surgery with sentinel lymph node sampling, chemotherapy agents (temozolomide, dacarbazine), and immunotherapy (interleukin-2 or interferon). Miserable outcomes and quite limited overall success were seen in the patients with metastatic melanoma before the new era of anti-PD (Programmed death) therapies. In recent years, many check point antibody inhibitors have been commercialized for targeting PD-1(Programmed death receptor 1), PD-L1 (Ligand for Programmed death receptor 1), and CTLA-4(Cytotoxic T-cell lymphocyte-associated protein 4). However, only limited kinds of cancers, including melanoma, non-small cell lung cancer (NSCLC), renal cell carcinoma (RCC), and urothelial carcinoma, are reported to have significant survival benefits in certain populations. More studies should be done for the research of ideal biomarker to select the appropriate population of patients to receive the immunotherapy.

References:

1. CiRen B, Wang X, Long Z. The evaluation of immunotherapy and chemotherapy treatment on melanoma: a network meta-analysis. *Oncotarget*. 2016 Dec 6;7(49):81493-81511.
2. Bankar S, Patkar S, Desai S, Shrikhande SV. Unusual presentation of melanoma of unknown primary origin: A case report and review of literature. *J Cancer Res Ther*. 2015 Oct-Dec;11(4):1025.
3. Eivazi-Ziaei J, Esmaili H. Metastatic malignant melanoma affecting stomach. *J Cancer Res Ther*. 2014 Jul-Sep;10(3):733-6.
4. Ramaswamy B, Bhandarkar AM, Venkitachalam S, Trivedi S. Amelanotic malignant melanoma of the cervical oesophagus. *BMJ Case Rep*. 2014 Apr 12;2014. pii: bcr2014204182.
5. Morita FH, Ribeiro U Jr, Sallum RA, Tacconi MR, Takeda FR, da Rocha JR, Ligabó Gde S, de Melo ES, Pollara WM, Ceconello I. Primary malignant melanoma of the esophagus: a rare and aggressive disease. *World J Surg Oncol*. 2013 Aug 23; 11:210.
6. Wolchok JD, Hodi FS, Weber JS, Allison JP, Urban WJ, Robert C, O'Day SJ, Hoos A, Humphrey R, Berman DM, Lonberg N, Korman AJ. Development of ipilimumab: a novel immunotherapeutic approach for the treatment of advanced melanoma. *Ann N Y Acad Sci*. 2013 Jul; 1291:1-13.

Case number: 509

Slide number: 27ST, 27SP, 27H

Slide view:

http://www.ivp.nchu.edu.tw/slide_view.php?id=1492

http://www.ivp.nchu.edu.tw/slide_view.php?id=1491

http://www.ivp.nchu.edu.tw/slide_view.php?id=1490

Hao-Kai, Chang (張皓凱), DVM, PhD candidate; Hue-Ying, Chiou (邱慧英), DVM, PhD^{1*}

¹ *Graduate Institute of Veterinary Pathobiology, National Chung Hsing University (國立中興大學獸醫病理生物學研究所)*

CASE HISTORY:

Signalment: 19-day-old chicken, for experiment used

According to the information provided by the sponsor, the chickens were from the experimental antitumor activity and toxicity of a doxorubicin new formulation study. The chickens were sacrificed on day 19 of the study. The representative tissue samples, including brain, heart, liver, spleen, gizzard (ventriculus), intestine and kidney, were collected.

Gross Findings:

No gross information provided by the sponsor.

CASE RESULT:

Histopathological Findings:

There were numerous microscopic changes noted in the collected organs, including heart, gizzard, liver, and spleen.

In the low-power field, the rounded margin of the apex of heart with left ventricular dilatation was noted. Myocardial wall was thickened, and showed massive pallor area with loose alignment of the myofiber. Myocytes of the myocardium were severe, diffuse vacuolar degeneration, hyaline change, fragmentation and necrosis. Loose alignment of the myocardial fibers was caused by the severe edema and loss of the myocytes. Large numbers of foamy macrophages infiltrated intermyocardially, with mild to moderate myocardial hemorrhage.

The gizzard showed severe transmural necrosis. In the high-power fields, the keratinoid layer and muscular layer of the gizzard contained multifocal to coalescing ulcerative necrosis with abundant cellular debris, foamy macrophages, and erythrocytes. Residual gizzard glandular epithelium presented hyperplasia of the foveolar cell, with hypersecretion of the mucinous-like

materials. Smooth muscle of the tunica muscular showed diffuse vacuolar degeneration. Fibrinous materials were attached to the serosal surface of the gizzard multifocally. Proventriculus presented mild hyperplasia of the foveolar cells of the mucous gland without any distinct necrosis.

Spleen was severe atrophy with multiple massive pallor area in the low-power fields. Parenchyma of the spleen showed diffusely severe necrosis, with abundant cellular debris, foamy macrophage and reticular connective structures remained.

Necrosis, serositis and steatosis were noted in the liver. The hepatocellular parenchyma was interrupted by locally-extensive (individual and coalescing foci of necrosis?) necrosis accompanying proliferated lobular fibrous connective tissue. More than 10 mitotic figures were seen in the hepatocytes per 10 high power fields. The serosal surface of the liver was diffusely covered by a layer of fibrinous material admixed with proliferative activities of fibrous connective tissue.

Pathological Diagnosis:

1. Necrosis, severe, diffuse, acute to subacute, heart
2. Necrosis, hemorrhagic, transmural, severe, multifocal to coalescing, acute to subacute, gizzard
3. Necrosis, severe, diffuse, acute, spleen
4. Necrosis, moderate, multifocal, subacute, with fibrinous serositis, liver

Differential diagnosis:

4. Poisoning
5. Nutritional deficiencies
6. Doxorubicin-induced diseases

Discussion:

Doxorubicin is the generic name of Adriamycin[®], or Rubex[®]. Doxorubicin is an ancient anthracycline antibiotic, which was introduced for the use of cancer treatment in about 1960⁷. Doxorubicin is commonly used as a chemotherapeutic agent for breast cancer, bladder cancer, endometrial cancer, multiple myeloma, Kaposi's sarcoma, lymphoma and lymphocytic leukemia, etc⁷. The cytostatic effects of the doxorubicin can involve inhibition of topoisomerase II and RNA polymerase II, intercalation into chromosomal DNA and formation of complexes with iron, provoking erroneous transcription and replication as well as generation of reactive oxygen species (ROS). ROS can impair cell viability by damage to proteins, lipids, DNA, and induce apoptosis⁵. The cytotoxic effects of doxorubicin are relevant not only to anti-cancer activity, but also to side effects such as cardiomyopathy, nephropathy, fatal typhlitis and bone marrow depression. Cardiotoxicity was the main side-effect of the doxorubicin. The mechanisms that are believed to cause cardiomyopathy include oxidative stress, downregulation of genes for contractile proteins and p53-mediated apoptosis⁵.

The cardiotoxicity from doxorubicin can appear as acute reversible myocarditis, subacute cardiomyopathy and chronic cardiomyopathy. In the previous studies, acute myocarditis constitutes 11% of all incidents and it can occur even with only one dosage. The subacute cardiomyopathy can occur 30 days from the last dose of the treatment and up to 10 years afterwards in the human⁵. The cardiac morphologic and functional derangements of doxorubicin cardiomyopathy are highly similar to the dilated cardiomyopathy. Patchy myocardial interstitial fibrosis and scattered vacuolated cardiomyocytes are the major histopathological changes in the doxorubicin cardiomyopathy in the previously studies. The areas of fibrosis are usually widespread and areas of acute myocyte damage are infrequent. Partial or total loss of myofibrils and myocyte vacuolar degeneration are essential features of doxorubicin cardiotoxicity. The nucleus-chromatin disorganization and replacement of chromatin by pale filaments are also features of doxorubicin cardiomyopathy².

The histopathology findings of heart in the chicken of present case were more severe than the previous studies. Massive vacuolar degeneration and loss of myofibrils were observed in the present case, without distinct fibrosis. Beyond the myocardial lesions, transmural necrosis of gizzard and diffuse necrosis of spleen were also fatal lesions. Necrosis of the gizzard was a rare lesion noted in the previous studies. Actin of the smooth muscle in the chicken gizzard presents only 4 out of the 375 amino acid residues are different to the cardiac muscle of the rabbit and mice. The side effect of the doxorubicin can induce polymerization of cardiac actin of mice *in vitro*. Therefore, similar lesions between chicken gizzard and mammal myocardium may be caused by the similar amino acid residues of the actin¹.

In short-term therapy with doxorubicin in human, the bone marrow suppression with the resultant leukopenia is the major dose-limiting toxicity. Doxorubicin is toxic to hematopoietic precursor cells and it can produce immediate and prolonged bone marrow (BM) depressions. Therefore, though the bone marrow was not examined in the present study, splenic necrosis and atrophy were considered as secondary doxorubicin-related effects of BM depression¹.

References:

7. Angsutararux, P., Luanpitpong, S., & Issaragrisil, S. Chemotherapy-induced cardiotoxicity: overview of the roles of oxidative stress. *Oxidative medicine and cellular longevity*, 2015.
8. Chatterjee, K., Zhang, J., Honbo, N., & Karliner, J. S. Doxorubicin cardiomyopathy. *Cardiology*, 2010, 115(2), 155-162.
9. Lemoniatis, M. (2015). Adriamycin-Induced Cardiomyopathy. *Journal of Medical Cases*, 6(5), 226-228.
10. Saltiel, E., & McGuire, W. Doxorubicin (adriamycin) cardiomyopathy—a critical review. *Western Journal of Medicine*, 1983, 139(3), 332.

Case number: 510

Slide no.: CO16246A

Slide view: http://www.ivp.nchu.edu.tw/slide_view.php?id=1485

Fu-Hsiang, Hou (侯富祥), DVM, MS; Wei-Cheng, Lee (李維誠), DVM, PhD^{1*}

¹ *Graduate Institute of Veterinary Pathobiology, National Chung Hsing University (國立中興大學獸醫病理生物學研究所)*

CASE HISTORY:

Signalment: An 11-week-old, experimental pig, castrated male, LYD

The pigs were introduced to experimental animal house at 7-week-old from a conventional PRRSV-free pig farm. All pigs were artificially inoculated with PRRSV after one week of acclimation. Clinical signs showed fever, anorexia, tachypnea, dyspnea and even abdominal breathing. Pigs were sacrificed at 3-week-post-challenge for pathological examination.

Gross Findings:

Pigs challenged with PRRSV showed wasting and rough hair in appearance. Several pigs present cyanosis of body terminate and ears and swelling of eyelids. Swelling of multiple joints, with turbid, yellowish fluid accumulated, were noticed on some pigs. Turbid fluid accumulated in pleural and abdominal cavities and fibrin adhered on viscera were found on some pigs. Extensive to diffuse consolidation, with meaty texture, and flashing were noted on lungs, which failed to collapse. Impressions of ribs were also observed. Consolidation with hard texture and colored of brown-to-dark-red were noted on the apical and cardiac lobes of some pigs. The tracheobronchial lymph nodes were markedly enlarged. Tissue slides present in this report was collected from a pig with no obvious evidence of secondary bacterial infections on gross examination.

CASE RESULT:

Histopathological Findings:

Diffusely thickening of alveolar wall and increased cellularity were noted on sections of lung. Marked hyperplasia and hypertrophy of type II pneumocyte were found. Infiltration of mononuclear cell were also noted on peribronchial and perivascular areas and alveolar wall. Necrotic cell clump accumulated in alveolar space with few neutrophil infiltration was observed in regions of severe interstitial pneumonia. Lymph node showed moderate hyperplasia of lymphoid follicle with clear germinal center formation, which composed of predominantly lymphoblast.

Pathological Diagnosis:

5. Pneumonia, interstitial, moderate, diffuse, chronic, lung
6. Lymphadenopathy, with reactive follicle hyperplasia and hypertrophy, moderate, chronic, tracheobronchial lymph node

Differential diagnosis:

1. Type II porcine circovirus infection
2. Classic swine fever

Discussion:

Porcine reproductive and respiratory syndrome (PRRS) is one of the most important disease in modern swine industry. The causative pathogen, PRRS virus (PRRSV), is a small, enveloped, single-stranded, positive-sense RNA virus, which has been classified as one member of *Arteriviridae* family, *Nidovirales* order. Infection of PRRSV predominantly leads to respiratory disorders in pigs of all ages and reproductive loss in breeding population. The severity of PRRS is largely influenced by multiple factors including host genetic variation, ages and immune status, viral virulence, management and the environmental conditions. PRRSV infection has also been broadly proved to serve as primary pathogen and interacts with other infectious agents to develop more complicated pathogenicity and impair host respiratory system.

PRRSV infection cause more severe pneumonia in young pigs compared to adult and may be complicated with secondary pathogen infections. Gross lesion of lung is characterized by extensive to diffuse consolidation. Additionally, multiple lymph nodes may be obviously enlarged. The microscopic lesions of PRRSV-caused pneumonia are featured by multifocal to diffuse interstitial thickening of alveolar walls, which typically characterized by type II pneumocyte hypertrophy and hyperplasia and infiltration of mononuclear inflammatory cells. Necrotic cell clump accumulated in alveolar space, which contribute to proliferative necrotizing pneumonia, may present in virulent PRRSV strain infection or when complicated with concurrent bacterial infections. In lymph node, follicular hyperplasia and hypertrophy are commonly found in PRRSV-infected pigs. Perifollicular area and medullary cords may expand due to mixed population of mononuclear cell hyperplasia. Germinal center necrosis may also present in acute phase of PRRSV infection. Other lesions including nonsuppurative encephalitis and gliosis, multifocal hemorrhage in viscera, mononuclear cell infiltration in myocardial interstitium have also been reported in previous studies.

PRRSV elicits poor innate and adaptive immune responses associated with immune modulation and incomplete viral clearance in most of the pigs. The innate immune system is the first line of host defense against viral infections. Infection with PRRSV induces significant suppression of NK cell cytotoxic activity as early as day two post infection and continued for three to four weeks. In addition, the quantity of innate cytokines secreted in PRRSV-infected pigs is significantly lower than with other viral infections. In PRRSV-infected pigs, several Th2 cytokine, especially IL-4 and IL-10, are notably secrete in early stage, which shift the host immune response bias to humeral responses. Thus, activation of cell-mediated immunity is delayed and dampened, which takes four to six week to develop. Infection with PRRSV stimulates an antibody response by 7 to 9 days post infection. However, there are several potential mechanisms help virus escape from host immune response: (a) glycan shielding effects of N-linked glycosylation in important epitopes; (b) presence of an immunodominant decoy epitope in upstream of the neutralizing epitope; (c) polyclonal B cell

activation resulting in hyperplastic lymph nodes packed with Ig-containing cells. This is paralleled by hypergammaglobulinemia in which newly synthesized Ig levels can increase as much as 1,000-fold in 3 weeks post infection although 1% of these are PRRSV specific. In contrast to the neutralizing antibodies appear weeks later, this antibody showed no evidence of protection against PRRSV infection. This polyclonal B cell activation and weakened cell-mediated immunity caused by PRRSV-triggered Th2-biased immunity eventually leads to the inefficiency and exhaustion of host immune system and persistent viral infection.

References:

1. Cho, J.G., Dee, S.A., 2006. Porcine reproductive and respiratory syndrome virus. *Theriogenol.* 66, 655-662.
2. Halbur, P.G., Paul, P.S., Frey, M.L., Landgraf, J., Eernisse, K., Meng, X.J., Lum, M.A., Andrews, J.J., Rathje, J.A., 1995. Comparison of the pathogenicity of two US porcine reproductive and respiratory syndrome virus isolates with that of the Lelystad virus. *Vet. Pathol.* 32, 648-660.
3. Lunney, J.K., Fang, Y., Ladinig, A., Chen, N., Li, Y., Rowland, B., Renukaradhya, G.J., 2016. Porcine Reproductive and Respiratory Syndrome Virus (PRRSV): Pathogenesis and Interaction with the Immune System. *Annu. Rev. Anim. Biosci.* 4, 129-154.
4. Rossow, K.D., 1998. Porcine reproductive and respiratory syndrome. *Vet. Pathol.* 35, 1-20.

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、 其他有關比較病理學術發展之事項。
- 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。
- 第二十二條 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。
- 第二十三條 本會置秘書長一人，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。但秘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。
- 第二十四條 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。
- 第二十五條 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

- 第二十六條 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。
- 第二十七條 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。
- 第二十八條 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。
- 第二十九條 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。應於七日以前以書面通知，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。
- 第三十條 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

- 第三十一條 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：一般會員新台幣壹仟元，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 第八屆理監事簡歷冊

序號	職別	姓名	性別	學歷	經歷	現任本職
1	理事長	許永祥	男	國立台大醫學院病理研究所碩士	台大醫院病理科住院醫師	慈濟醫院病理科主任教授
2	常務理事	劉振軒	男	美國加州大學戴維斯校區比較病理學博士	國立臺灣大學獸醫專業學院院長	台灣大學分子暨比較病理生物學研究所教授
3	常務理事	施洽雯	男	國立國防醫學院病理研究所	中山醫學院病理科副教授	羅東博愛醫院病理科主任
4	常務理事	鄭謙仁	男	美國北卡羅萊納州立大學博士	台灣大學獸醫學系教授兼所長	台灣大學獸醫學系教授
5	常務理事	邱慧英	女	國立台大獸醫專業學院博士	台灣養豬科學研究所	國立中興大學獸醫病理生物學研究所 助理教授
6	理事	朱旆億	男	國立臺灣大學醫學系	輔仁大學醫學系兼任助理教授	彰化秀傳紀念醫院病理科主任
				國立臺灣大學獸醫專業學院博士		
7	理事	李進成	男	英國倫敦大學神經病理博士	長庚醫院內科醫師	新光吳火獅紀念醫院病理檢驗科醫師
8	理事	阮正雄	男	日本國立岡山大學大學院醫齒藥總合研究科博士	台北醫學大學副教授兼細胞科學中心主任	輔英科技大學附設醫院
9	理事	林永和	男	國立台大病理研究所碩士	台北醫學院病理科講師	台北醫學院病理科副教授
10	理事	祝志平	男	台大病理研究所	台北醫學院講師	彰化秀傳紀念醫院病理部

11	理事	賴銘淙	男	清華大學生命科學院博士	彰濱秀傳紀念醫院病理科主任	衛生福利部臺中醫院病理學科主任
12	理事	賈敏原	男	國立臺灣大學獸醫專業學院 博士	國衛院研究員	國立中興大學獸醫系助理教授
13	理事	張俊梁	男	國防醫學院醫學科學研究所博士		國防醫學院兼任助理教授
14	理事	陳姿妤	女	國立中興大學獸醫病理學研究所碩士	生技中心研究員	國家實驗動物中心病理獸醫師
15	理事	鄭明芳	男	國立陽明大學口腔生物研究所博士	國防醫學院醫學系病理學科暨病理及寄生蟲研究所	805 醫院病理主任
16	常務監事	廖俊旺	男	國立台灣大學獸醫學研究所博士	農業藥物毒物試驗所應用毒理組副研究員	國立中興大學獸醫病理生物學研究所教授
17	監事	蔡慧玲	女	台灣女科技人學會		監事
18	監事	楊俊宏	男	長庚大學生物醫學研究所博士		農委會農業藥物毒物試驗所
19	監事	簡耀君	男	國立臺灣大學獸醫學研究所獸醫學碩士	長青動物醫院病理部主任	長青動物醫院病理部主任
20	監事	彭奕仁	男	國防醫學院醫學科學研究所博士班學生		三軍總醫院病理部主治醫師
21	秘書長	張惠雯	女	國立臺灣大學獸醫專業學院 博士		台灣大學分子暨比較病理生物學研究所 助理教授

中華民國比較病理學會

基金收支表

中華民國 106 年 1 月 1 日至 106 年 12 月 31 日止

單位：新臺幣(元)

收		入		支		出	
科目	金額	科目	金額	科目	金額	科目	金額
準備基金	10,400	準備基金	0				
歷年累存	10,400						
本年度提撥	2,400						
				結餘			12,800

理事長：

常務監事：

秘書長：

會計：

說明：本會暫無基金專戶，於年底時依盈餘情形提列為不可動支的準備基金，於活期存簿中(合作金部)目前歷年累存之準備基金為臺灣幣仟捌百元。

中華民國比較管理學會
現金出納表

中華民國 106 年 1 月 1 日至 106 年 12 月 31 日止

單位：新臺幣(元)

收		支		出
科目	名稱	科目	名稱	金額
上期	結存			
本期	收入	86,540 本	支	53,676
合計	計	101,748 本	結	134,612
		188,288 合	存	188,288
			計	

理事長

常務監事

秘書長

會計









中華民國比較病理學會
資產負債表

中華民國 106 年 12 月 31 日 單位：新臺幣(元)

資 產	負債 基金 暨 餘備
歷年歲末累計結餘 86,540	合作金庫活存 84,895
提撥準備基金 0	現金 49,717
106 年度餘額 48,072	
合 計 134,612	合 計 134,612

理事長: 

常務監事: 

秘書長: 

會計: 


中華民國比較病理學會
收支決算表
中華民國 106 年 1 月 1 日至 106 年 12 月 31 日
單位：新臺幣(元)

款	項	目	名稱	決算數	預算數	決算與預算比較數		說明
						增加	減少	
1			本會經費收入	101,748	58,500	43,248		
			人會費	11,600	4,000	7,600		一般會員 11 人，學生 8 人
			常年會費 (三年內)	54,100	30,000	24,100		一般會員 39 人，學生 22 人
			贊助會費	32,000	20,000	12,000		廠商捐款
			利息收入	48	80		32	
2			其他收入	4,000	4,420		420	單次報名
			本會經費支出	53,676	58,500		4,824	
			人事費	6,000	8,000		2,000	
			兼職人員車馬費	0	8,000	6,000	8,000	
			其它人事費	6,000	0		0	專題演講者車馬費(共 3 位)
2			辦公費	11,634	14,000		2,366	
			印刷費	9,488	12,000		2,512	
			旅運費	0	0		0	
			郵電費	546	2,000		1,454	印刷第 69、70 及 71 次會議手冊
3			公共關係費	1,600	0	1,600		
			業務費	34,023	25,800	8,223		
			會議費	34,023	25,800	8,223		
			雜費支出 (獸醫再教育登錄)	2,019	10,000		11,981	
3			提撥基金	2,400	700		700	
			本期餘額	48,072	0			

理事長：

常務監事：

秘書長：

會計：

中華民國比較病理學會

107 年度工作計劃

一、會務

1. 徵求會員

持續進行學會推廣及會員招募，擴大會員陣容，

2. 整理會籍與清查會費

i. 更新整理會籍資料，並製作會員通訊錄

ii. 清查會員繳費狀況，進行催繳，缺繳三年以上徹底實行停權

3. 召開會議

召開會員大會一次，審查 107 年度工作報告與經費收支狀況，研議
107 年度之工作計劃及預算

4. 學術活動

持續辦理三次研討會，並邀請國內外專家學者做學術性的演講

二、業務

1. 繳納會費

2. 文書處理

整理與更新會員信箱，刪除無效信箱

3. 病例資料處理

掃描研討會議病例切片，供會員研究教學使用

4. 研討會活動照片、會員狀態及網頁維護更新

5. 進行獸醫再教育學分申請及協助會員學分認證

中華民國比較府理學會
收支預算表

中華民國 107 年 1 月 1 日至 107 年 12 月 31 日

單位：新臺幣(元)

款	項	目	科	目	名稱	本年度 預算數	上年度 預算數	本年度與上年度 預算比較數		說明
								增加	減少	
1	1			本會經費收入	85,080	58,500	26,580		學生入會 100 元;一般會員 1000 元	
	2			人會費	6,000	4,000	2,000		學生會員 100 元;一般會員 1000 元	
	3			常年會費	35,000	30,000	5,000		贊助廠商 5000 元	
	4			贊助會費	40,000	20,000	20,000			
	4			利息收入	80	80				
	5			其他收入	4,000	4,420		420		
2	1			本會經費支出	65,880	58,500	7,380			
	1			人事費	6,000	8,000		2,000		
	2			兼職人員車馬費	0	8,000		8,000		
	2			其他人事費	6,000		6,000		講師費 2000 元	
	1			辦公費	15,380	14,000	1,380		會議手冊印製	
	2			印刷費	14,080	12,000	2,080		病例切片郵寄	
	2			旅運費	300	0	300			
	3			郵電費	1,000	2,000		1000		
	4			公共關係費	0	0				
3	1			業務費	35,800	25,800	10,000		如有盈餘,得依規定提列 5% 以上	
	1			會議費	35,800	25,800	10,000			
	4			雜費支出	8,000	10,000		2,000		
	5			提撥基金	0	700				
3				本期餘額	19,200	0	300			

會計：任張

秘書長：夏培

常務監事：後旺

理事長：本許

數位組織切片資料庫

How-To Access Comparative Pathology Virtual Slides
Hosted at the Web Library in NTU Vet Med Digital Pathology Lab
(中華民國比較病理學會數位式組織切片影像資料庫)

Comparative Pathology glass slides are now digitalized and accessible to all participants through the internet and a web browser (see below for detail instruction).

1. Please make sure that your web browser (e.g. Internet Explorer, Firefox or Safari) is equipped with "flash player." If not, it can be added from <http://www.adobe.com/products/flashplayer/> for free.
2. Please go to the Chinese Society of Comparative Pathology web site at <http://www.ivp.nchu.edu.tw/cscp/>
3. Choose the slide images (e.g. 63rd CSCP)
4. Pick any case you'd like to read (e.g. case 435-440)

比較病理研討會病例分類一覽表

中華民國比較病理學會
第一次至第七十次比較病理學研討會病例分類一覽表

分類	病例編號	會議場次	診 斷	動物別	提 供 單 位
腫 瘤	1.	1	Myxoma	Dog	美國紐約動物醫學中心
	2.	1	Chordoma	Ferret	美國紐約動物醫學中心
	3.	1	Ependyoblastoma	Human	長庚紀念醫院
	8.	2	Synovial sarcoma	Pigeon	美國紐約動物醫學中心
	18.	3	Malignant lymphoma	Human	長庚紀念醫院
	19.	3	Malignant lymphoma	Wistar rat	國家實驗動物繁殖及研究中心
	24.	3	Metastatic thyroid carcinoma	Human	省立新竹醫院
	25.	3	Chordoma	Human	新光吳火獅紀念醫院
	34.	4	Interstitial cell tumor	Dog	中興大學獸醫學系
	35.	4	Carcinoid tumor	Human	長庚紀念醫院
	36.	4	Hepatic carcinoid	Siamese cat	美國紐約動物醫學中心
	38.	6	Pheochromocytoma	Ferret	美國紐約動物醫學中心
	39.	6	Extra adrenal pheochromocytoma	Human	新光吳火獅紀念醫院
	40.	6	Mammary gland fibroadenoma	Rat	國家實驗動物繁殖及研究中心
	41.	6	Fibroadenoma	Human	省立豐原醫院
	42.	6	Canine benign mixed type mammary gland tumor	Pointer bitch	中興大學獸醫學系
	43.	6	Phyllodes tumor	Human	台中榮民總醫院
	44.	6	Canine oral papilloma	Dog	台灣大學獸醫學系
	45.	6	Squamous cell papilloma	Human	中國醫藥學院
	47.	7	1. Lung: metastatic carcinoma associated with cryptococcal infection. 2. Liver: metastatic carcinoma. 3. Adrenal gland, right: carcinoma (primary)	Human	三軍總醫院
56.	8	Gastrointestinal stromal tumor	Human	台中榮民總醫院	
59.	8	Colonic adenocarcinoma	Dog	美國紐約動物醫學中心	
62.	8	Submucosal leiomyoma of stomach	Human	頭份為恭紀念醫院	
64.	8	1. Adenocarcinoma of sigmoid colon 2. Old schistosomiasis of rectum	Human	省立新竹醫院	
71.	9	Myelolipoma	Human	台北耕莘醫院	
72.	9	Reticulum cell sarcoma	Mouse	國家實驗動物繁殖及研究中心	

腫 瘤	73.	9	Hepatocellular carcinoma	Human	新光吳火獅紀念醫院
	74.	9	Hepatocellular carcinoma induced by aflatoxin B1	Wistar rats	台灣省農業藥物毒物試驗所
		10	Angiomyolipoma	Human	羅東博愛醫院
		10	Inverted papilloma of prostatic urethra	Human	省立新竹醫院
		10	Nephrogenic adenoma	Human	國泰醫院
		10	Multiple myeloma with systemic amyloidosis	Human	佛教慈濟綜合醫院
		10	Squamous cell carcinoma of renal pelvis and calyces with extension to the ureter	Human	台北病理中心
		10	Fibroepithelial polyp of the ureter	Human	台北耕莘醫院
	90.	10	Clear cell sarcoma of kidney	Human	台北醫學院
	93.	11	Mammary gland adenocarcinoma, complex type , with chondromucinous differentiation	Dog	台灣大學獸醫學系
	94.	11	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, papillary carcinoma, metastatic	Human	羅東聖母醫院
	95.	11	Transmissible venereal tumor	Dog	中興大學獸醫學系
	96.	11	Malignant lymphoma, large cell type, diffuse, B-cell phenotype	Human	彰化基督教醫院
	97.	11	Carcinosarcomas	Tiger	台灣養豬科學研究所
	98.	11	Mucinous carcinoma with intraductal carcinoma	Human	省立豐原醫院
	99.	11	Mammary gland adenocarcinoma, type B, with pulmonary metastasis, BALB/cBYJ mouse	Mouse	國家實驗動物繁殖及研究中心
	100.	11	Malignant fibrous histiocytoma and paraffinoma	Human	中國醫藥學院
102.	11	Pleomorphic adenoma (benign mixed tumor)	Human	佛教慈濟綜合醫院	
腫 瘤	103.	13	Atypical central neurocytoma	Human	新光吳火獅紀念醫院
		13	Cardiac schwannoma	SD rat	國家實驗動物繁殖及研究中心
		13	Desmoplastic infantile ganglioglioma	Human	高雄醫學院

腫 瘤	13	1.Primary cerebral malignant lymphoma 2.Acquired immune deficiency syndrome	Human	台北市立仁愛醫院	
	13	Schwannoma	Human	三軍總醫院	
	13	Osteosarcoma	Dog	美國紐約 動物醫學中心	
	14	Mixed germ-cell stromal tumor, mixed sertoli cell and seminoma-like cell tumor	Dog	美國紐約 動物醫學中心	
	14	Krukenberg's Tumor	Human	台北病理中心	
	14	Primary insular carcinoid tumor arising from cystic teratoma of ovary.	Human	花蓮慈濟綜合醫院	
	14	Polypoid adenomyoma	Human	大甲李綜合醫院	
	14	Gonadal stromal tumor	Human	耕莘醫院	
	14	Gestational choriocarcinoma	Human	彰化基督教醫院	
	14	Ovarian granulosa cell tumor	Horse	中興大學獸醫學系	
	15	Kaposi's sarcoma	Human	華濟醫院	
	15	Basal cell carcinoma (BCC)	Human	羅東聖母醫院	
	15	Transmissible venereal tumor	Dog	臺灣大學獸醫學系	
	17	Canine Glioblastoma Multiforme in Cerebellopontine Angle	Dog	中興大學獸醫病理研究所	
	143	18	Osteosarcoma associated with metallic implants	Dog	紐約動物醫學中心
	144	18	Radiation-induced osteogenic sarcoma	Human	花蓮慈濟綜合醫院
	145	18	Osteosarcoma, osteogenic	Dog	臺灣大學獸醫學系
	146	18	Pleomorphic rhabdomyosarcoma	Human	行政院衛生署新竹醫院
	147	18	Papillary Mesothelioma of pericardium	Leopard	屏東科大學獸醫學系
	148	18	Cystic ameloblastoma	Human	台北醫學院
149	18	Giant cell tumor of bone	Canine	中興大學獸醫學院	
150	18	Desmoplastic small round cell tumor (DSRCT)	Human	華濟醫院	
152	18	Hepatocellular carcinoma	Human	羅東聖母醫院	
158	20	Hemangiopericytoma	Human	羅東聖母醫院	
160	20	Cardiac fibroma	Human	高雄醫學大學病理學科	
166	21	Nephroblastoma	Rabbit	紐約動物醫學中心	
168	21	Nephroblastoma	Pig	台灣動物科技研究所	
169	21	Nephroblastoma with rhabdomyoblastic differentiation	Human	高雄醫學大學病理科	
172	21	Spindle cell sarcoma	Human	羅東聖母醫院	
174	21	Juxtaglomerular cell tumor	Human	新光醫院病理檢驗科	
190	27	Angiosarcoma	Human	高雄醫學大學病理學科	

腫 瘤	192	27	Cardiac myxoma	Human	彰化基督教醫院病理科
	194	27	Kasabach-Merrit syndrome	Human	慈濟醫院病理科
	195	27	Metastatic hepatocellular carcinoma, right atrium	Human	新光醫院病理科
	197	27	Papillary fibroelastoma of aortic valve	Human	新光醫院病理科
	198	27	Extraplacental chorioangioma	Human	耕莘醫院病理科
	208	30	Granulocytic sarcoma (Chloroma) of uterine cervix	Human	高雄醫學大學病理學科
	210	30	Primary non-Hodgkin's lymphoma of bone, diffuse large B cell, right humerus	Human	彰化基督教醫院病理科
	213	30	Lymphoma, multi-centric type	Dog	中興大學獸醫系
	214	30	CD30 (Ki-1)-positive anaplastic large cell lymphoma (ALCL)	Human	新光醫院病理科
	215	30	Lymphoma, mixed type	Koala	台灣大學獸醫學系
	217	30	Mucosal associated lymphoid tissue (MALT) lymphoma, small intestine	Cat	臺灣大學獸醫學研究所
		31	Nasal type NK/T cell lymphoma	Human	高雄醫學大學病理科
		31	Acquired immunodeficiency syndrome (AIDS)with disseminated Kaposi's sarcoma	Human	慈濟醫院病理科
		32	Epithelioid sarcoma	Human	彰化基督教醫院病理科
		32	Cutaneous B cell lymphoma, eyelid , bilateral	Human	羅東聖母醫院病理科
		32	Extramammary Paget's disease (EMPD) of the scrotum	Human	萬芳北醫皮膚科病理科
		32	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
		34	Malignant melanoma, metastasis to intra-abdominal cavity	Human	財團法人天主教耕莘醫院病理科
		34	Vaccine-associated rhabdomyosarcoma	Cat	台灣大學獸醫學系
		34	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
	34	1. Neurofibromatosis, type I 2. Malignant peripheral nerve sheath tumor (MPNST)	Human	花蓮慈濟醫院病理科	
	35	Glioblastoma multiforme	Human	羅東聖母醫院	

35	Pineoblastoma	Wistar rat	綠色四季
35	Chordoid meningioma	Human	高醫病理科
35	Infiltrating lobular carcinoma of left breast with meningeal carcinomatosis and brain metastasis	Human	花蓮慈濟醫院病理科
35	Microcystic Meningioma.	Human	耕莘醫院病理科
36	Well-differentiated fetal adenocarcinoma without lymph node metastasis	Human	新光吳火獅紀念醫院
36	Adenocarcinoma of lung.	Human	羅東聖母醫院
36	Renal cell carcinoma	Canine	國立台灣大學獸醫學系 獸醫學研究所
36	Clear cell variant of squamous cell carcinoma, lung	Human	高雄醫學大學附設中和醫院病理科
37	Metastatic adrenal cortical carcinoma	Human	耕莘醫院病理科
37	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
38	Medullar thyroid carcinoma	Canine	臺灣大學獸醫學系
39	Merkel cell carcinoma	Human	羅東博愛醫院
39	Cholangiocarcinoma	Human	耕莘醫院病理科
39	Sarcomatoid carcinoma of renal pelvis	Human	花蓮慈濟醫院病理科
39	Mammary Carcinoma	Canine	中興大學獸醫學系
39	Metastatic prostatic adenocarcinoma	Human	耕莘醫院病理科
39	Malignant canine peripheral nerve sheath tumors	Canine	臺灣大學獸醫學系
39	Sarcomatoid carcinoma, lung	Human	羅東聖母醫院
40	Vertebra, T12, laminectomy, metastatic adenoid cystic carcinoma	Human	彰化基督教醫院
40	rhabdomyosarcoma	Canine	臺灣大學獸醫學系
40	Fetal rhabdomyosarcoma	SD Rat	中興大學獸醫學系
40	Adenocarcinoma, metastatic, iris, eye	Human	高雄醫學大學
40	Axillary lymph node metastasis from an occult breast cancer	Human	羅東博愛醫院
40	Hepatocellular carcinoma	Human	國軍桃園總醫院
40	Feline diffuse iris melanoma	Feline	中興大學獸醫學系
40	Metastatic malignant melanoma in the brain and inguinal lymph node	Human	花蓮慈濟醫院病理科
41	Tonsil Angiosarcoma	Human	羅東博愛醫院

	41	Malignant mixed mullerian tumor	Human	耕莘醫院病理科
	41	Renal cell tumor	Rat	中興大學獸醫學系
	41	Multiple Myeloma	Human	花蓮慈濟醫院病理科
	41	Myopericytoma	Human	新光吳火獅紀念醫院
	41	Extramedullary plasmacytoma with amyloidosis	Canine	臺灣大學獸醫學系
	42	Metastatic follicular carcinoma	Human	羅東聖母醫院病理科
	42	Primitive neuroectodermal tumor (PNET), T-spine.	Human	羅東博愛醫院病理科
	42	Hemangioendothelioma of bone	Human	花蓮慈濟醫院病理科
	42	Malignant tumor with perivascular epithelioid differentiation, favored malignant PEComa	Human	彰化基督教醫院
	43	Mucin-producing cholangiocarcinoma	Human	基隆長庚醫院
	43	Cutaneous epitheliotropic lymphoma	Canine	臺灣大學獸醫專業學院
	43	Cholangiocarcinoma	Felis Lynx	臺灣大學獸醫專業學院
	43	Lymphoma	Canine	臺灣大學獸醫專業學院
	43	Solitary fibrous tumor	Human	彰化基督教醫院
	43	Multiple sarcoma	Canine	臺灣大學獸醫專業學院
	44	Malignant solitary fibrous tumor of pleura	Human	佛教慈濟綜合醫院暨慈濟大學
	44	Ectopic thymic carcinoma	Human	彰濱秀傳紀念醫院病理科
	44	Medullary carcinoma of the right lobe of thyroid	Human	彰化基督教醫院病理科
	44	Thyroid carcinosarcoma with cartilage and osteoid formation	Canine	臺灣大學獸醫專業學院
	44	Lymphocytic leukemia/lymphoma	Koala	臺灣大學獸醫專業學院
	45	Neuroendocrine carcinoma of liver	Human	佛教慈濟綜合醫院暨慈濟大學
	45	Parachordoma	Human	羅東博愛醫院病理科
	45	Carcinoma expleomorphic adenoma, submandibular gland	Human	天主教耕莘醫院病理科
	45	Melanoma, tongue	Canine	國立臺灣大學獸醫專業學院
	45	Renal cell carcinoma, papillary type	Canine	國立臺灣大學獸醫專業學院
323	46	Metastatic papillary serous cystadenocarcinoma, abdomen	Human	國軍桃園總醫院
324	46	Malignant gastrointestinal stromal tumor	Human	天主教耕莘醫院

腫 瘤	329	47	Sclerosing stromal tumor	Human	彰化基督教醫院
	330	47	Pheochromocytoma	Human	天主教耕莘醫院
	334	48	Metastatic infiltrating ductal carcinoma, liver	Human	佛教慈濟綜合醫院
	335	48	Adenoid cystic carcinoma, grade II, Rt breast	Human	天主教耕莘醫院
	336	48	Malignant lymphoma, diffuse, large B-cell, right neck	Human	林新醫院
	337	48	Pulmonary carcinoma, multicentric	Dog	國立臺灣大學獸醫專業學院
	338	48	Malignant melanoma, multiple organs metastasis	Rabbit	國立中興大學獸醫學院
	340	49	Mucinous-producing urothelial-type adenocarcinoma of prostate	Human	天主教耕莘醫院
	342	49	Plexiform fibromyxoma	Human	彰化基督教醫院
	343	49	Malignant epithelioid trophoblastic tumor	Human	佛教慈濟綜合醫院
	344	49	Epithelioid sarcoma	Human	林新醫院
	346	49	Transmissible venereal tumor	Dog	國立臺灣大學獸醫專業學院
	347	50	Ewing's sarcoma (PNET/ES tumor)	Human	天主教耕莘醫院病理科
	348	50	Malignant peripheral nerve sheath tumor, epithelioid type	Human	林新醫院病理科
	349	50	Low grade fibromyxoid sarcoma	Human	高雄醫學大學附設中和紀念醫院病理科
	351	50	Orbital embryonal rhabdomyosarcoma	Dog	Gifu University, Japan (岐阜大学)
	354	50	Granular cell tumor	Dog	國立臺灣大學獸醫專業學院
	356	50	Malignant neoplasm of unknown origin, cerebrum	Dog	國立臺灣大學獸醫專業學院
	357	51	Small cell Carcinoma, Urinary bladder	Human	天主教耕莘醫院
	364	51	Perivascular epithelioid cell tumor, in favor of lymphangiomyomatosis	Human	高雄醫學大學附設中和紀念醫院病理科
	365	52	Angiosarcoma, skin (mastectomy)	Human	天主教耕莘醫院病理科
	366	52	Rhabdomyoma (Purkinjeoma), heart	Swine	屏東縣家畜疾病防治所
	368	52	Langerhans cell sarcoma, lung	Human	高雄醫學大學附設中和紀念醫院病理科
	369	52	Biliary cystadenocarcinoma, liver	Camel	國立屏東科技大學獸醫教學醫院病理科
	371	52	Malignant melanoma, nasal cavity	Human	羅東博愛醫院病理科
	373	53	Malignant giant cell tumor of tendon sheath	Human	天主教耕莘醫院病理科

腫瘤

376	53	Malignant mesothelioma of tunica vaginalis	Golden hamster	中興大學獸醫病理生物學研究所
377	53	Perivascular Epithelioid Cell Tumor (PEComa) of the uterus	Human	彰化基督教醫院病理部
378	53	Medullary carcinoma	Human	高雄醫學大學病理部
389	55	Mantle cell lymphoma involving ascending colon, cecum, ileum, appendix and regional lymph nodes with hemorrhagic necrosis in the colon and leukemic change.	Human	奇美醫院病理部
390	55	Pulmonary Squamous Cells Carcinoma of a Canine	Dog	國立屏東科技大學獸醫教學醫院病理科
391	55	Squamous cell carcinoma, lymphoepithelioma-like type	Human	高醫附設醫院病理科
393	55	Malignant peripheral nerve sheath tumor (MPNST), subcutis, canine.	Dog	中興大學獸醫學系
394	55	Desmoplastic malignant melanoma (mimic malignant peripheral nerve sheath tumor)	Human	中山醫學大學醫學系病理學科暨附設醫院病理科
397	56	Atypical meningioma	Human	奇美醫院病理科
401	57	Lymph nodes, excision - Hodgkin's lymphoma, mixed cellularity	Human	天主教耕莘醫院
402	57	1. Leukemia, nonlymphoid, granulocytic, involving bone marrow, spleen, liver, heart, lungs, lymph nodes, kidney, hardian gland, duodenum and pancreas. 2. Pinworm infestation, moderate, large intestines. 3. Fibrosis, focal, myocardium.	Mouse	國家實驗動物中心
403	57	Non-secretory multiple myeloma with systemic amyloidosis	Human	佛教慈濟綜合醫院暨慈濟大學病理科
404	57	1. Hepatocellular adenocarcinoma, multifocal, severe, liver 2. Hemorrhage, moderate, acute, body cavity 3. Bumble foot, focal, mild, chronic, food pad 4. cyst and atherosclerosis, chronic, testis	Goose	國立中興大學獸醫病理生物學研究所
406	57	Castleman's disease	Human	羅東博愛醫院
407	58	Hepatoid adenocarcinoma of colon with multiple liver metastases	Human	羅東博愛醫院
408	58	Cardiac and pulmonary melanoma	Pig	國立中興大學獸醫病理生物學研究所
409	58	Double Tumors: (1) small cell carcinoma of lung	Human	佛教慈濟綜合醫院暨慈濟大學病理科

		(2) Hodgkin's lymphoma, mixed cellularity type. Acrokeratosis paraneoplastica		
410	58	Von Hippel–Lindau disease	Human	奇美醫院病理部
411	58	Multiple neoplasia	Tiger	國立屏東科技大學獸醫教學醫院病理科
412	58	Hepatocellular carcinoma and multiple myeloma	Human	中山醫學大學醫學系病理學科暨附設醫院病理科
413	59	DEN plus AAF carcinogens induced hepatic tumor in male rats	Rat	中興大學獸醫病理生物學研究所
417	59	Alveolar soft part sarcoma	Human	高雄醫學大學附設中和紀念醫院病理科
418	60	Seminoma associated with supernumerary testicles	Human	羅東博愛醫院
422	61	Retinoblastoma in a baby girl	Human	彰化基督教醫院
423	61	Colloid goiter in a female Radiated tortoise (<i>Astrochelys radiata</i>)	Tortoise	台灣大學獸醫專業學院分子暨比較病理生物學研究所
424	61	Lymphoepithelial carcinoma in a women	Human	羅東博愛醫院
425	61	Histiocytic sarcoma in a SJL/J mouse	mouse	國家實驗動物中心
428	62	Malignant lymphoma, diffuse large B-cell (DLBCL) in a women	Human	國軍桃園總醫院病理檢驗部
429	62	Immune reconstitution inflammatory syndrome (IRIS)-associated Kaposi's sarcoma in a man	Human	花蓮慈濟醫院
430	62	Mammary adenocarcinoma, tubular form in a female feline	Cat	中興大學獸醫病理生物學研究所
433	62	Rhabdomyosarcoma, retroperitoneal cavity in a female mouse	Mouse	國家實驗動物中心
434	62	Malignant pheochromocytoma with pleural metastasis in a man	Human	天主教聖馬爾定醫院病理科
436	63	Primary non-Hodgkins lymphoma of terminal ileum	Human	國軍桃園總醫院病理檢驗部
438	63	Ectopic thyroid gland tumor	Beagle	台灣大學獸醫專業學院分子暨比較病理生物學研究所
440	63	Hepatocellular cell carcinoma Squamous cell carcinoma	Human	天主教聖馬爾定醫院口腔顎面外科
442	64	Large B cell lymphoma in a man	Human	羅東博愛醫院

腫瘤

444	64	Olfactory neuroblastoma in a female cat	Cat	台灣大學獸醫專業學院分子暨比較病理生物學研究所
445	64	Oligodendroglioma in a man	Human	國軍桃園總醫院病理檢驗部
447	64	Ameloblastoma of mandible in a man	Human	天主教聖馬爾定醫院口腔顎面外科
448	65	EBV associated extranodal NK / T-cell lymphoma, nasal type	Human	羅東博愛醫院
451	65	Mouse, subcutaneously mass – exocrine pancreatic adenocarcinoma, AsPC-1 cells, human origin, heterotopical model	Mouse	國家實驗動物中心
452	65	1. Extranodal NK/T-cell lymphoma, nasal type 2. 2. Regional lymph nodes and omentum are involved.	Human	台中醫院
457	66	Metastatic squamous cell carcinoma (SCC)	Horse	台灣大學獸醫專業學院分子暨比較病理生物學研究所
459	66	Squamous intraepithelial lesion (SIL)	Human	高雄醫學大學附設醫院病理部
460	66	Subcutaneous liposarcoma and uterine endometrial stromal sarcoma	African hedgehog	中興大學獸醫病理生物學研究所
463	67	Splenic undifferentiated pleomorphic sarcoma in a Djungarian hamster	Hamster	國立中興大學獸醫教學醫院鳥禽與野生動物科
465	67	Plasmacytoid urothelial carcinoma	Dog	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所
467	67	1.Poorly differentiated hemangiosarcoma in face 2.Squamous cell carcinoma in ear	Civet	農委會特有生物研究保育中心
473	68	Simple mammary gland adenocarcinoma	Guinea pig	中興大學獸醫病理生物學研究所
476	69	Mediastinum dedifferentiated liposarcoma	Human	羅東博愛醫院
477	69	Uterus adenosarcoma	Hedgehog	中興大學獸醫病理生物學研究所
478	69	Primary pericardial mesothelioma in a woman	Human	佛教慈濟綜合醫院暨慈濟大學病理科
479	69	Pulmonary solid adenocarcinoma	Dog	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所

481	70	Paraganglioma of liver	Human	佛教慈濟綜合醫院暨慈濟大學病理科
482	70	Adenocarcinoma, transmural, recurrent, with desmoplasia and metastasis to regional lymph node, jejunum and ileocecal junction Mast cell tumor, moderately-differentiated, multiple, jejunal and ileocecal masses	Cat	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所
483	70	Solitary fibrous tumor of pelvis	Human	羅東博愛醫院病理科
484	70	Chronic lymphocytic leukemia, with systemic dissemination, bone marrow, intestine, generalized lymph node, spleen, liver, kidney and lung	Dog	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所
485	70	Intestine, large, colon, ascending, -- - Carcinoma, poorly differentiated (pT4aN1b). (ADVANCED) 2. Stomach, distal, --- Adenocarcinoma, moderately differentiated (pT1bNO) (EARLY) (Synchronous cancer)	Human	秀傳醫療社團法人秀傳紀念醫院
487	70	Angiomyolipoma of the liver	Human	衛生福利部臺中醫院病理科
490	71	Xp11.2 translocation renal cell carcinoma	Human	羅東博愛醫院病理科
491	71	Anaplastic renal cell carcinoma	Djungarian hamster	國立中興大學獸醫病理生物學研究所
493	71	Mucin-producing urothelial-type adenocarcinoma of the prostate (MPUAP)	Human	天主教耕莘醫療財團法人耕莘醫院
494	71	Left paratesticular dedifferentiated liposarcoma with leiomyomatous differentiation.	Human	天主教耕莘醫療財團法人耕莘醫院
495	71	Renal nephroblastoma, blastema-predominant with metastasis to gingiva, renal mass	Dog	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所
496	71	Testis, left: Malignant mixed germ cell–sex cord stromal tumor (spermatocytic germinoma and Sertoli cell tumor), with angiolymphatic invasion. Testis, right: Germ cell atrophy, multifocal, moderate.	Dog	長青動物醫院
499	72	Brain, frontal lobe, Lt., Malignant melanoma, consistent with metastatic cutaneous malignant melanoma.	Human	國軍桃園總醫院

	501	72	Anaplastic carcinoma thyroid (spindle cell type)	Human	天主教耕莘醫院	
	502	72	Primitive neuroectodermal tumor (PNET), most likely originating from ureter, with metastasis to liver and involvements of urinary bladder, uterus and left adrenal gland	Formosan serow	臺灣大學獸醫學系	
	503	72	Metastatic follicular carcinoma	Human	衛生福利部台中醫院	
細菌		1	Tuberculosis	Monkey	臺灣大學獸醫學系	
		7.	1	Tuberculosis	Human	省立新竹醫院
		12.	2	H. pylori-induced gastritis	Human	台北病理中心
		13.	2	Pseudomembranous colitis	Human	省立新竹醫院
		26.	3	Swine salmonellosis	Pig	中興大學獸醫學系
		27.	3	Vegetative valvular endocarditis	Pig	台灣養豬科學研究所
		28.	4	Nocardiosis	Human	台灣省立新竹醫院
		29.	4	Nocardiosis	Largemouth bass	屏東縣家畜疾病防治所
		32.	4	Actinomycosis	Human	台灣省立豐原醫院
		33.	4	Tuberculosis	Human	苗栗頭份為恭紀念醫院
		53.	7	Intracavitary aspergilloma and cavitary tuberculosis, lung.	Human	羅東聖母醫院
		54.	7	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.	7	Tuberculous enteritis with perforation	Human	佛教慈濟綜合醫院
		61.	8	Spirochetosis	Goose	國立嘉義農專獸醫科
		63.	8	Proliferative enteritis (Lawsonia intracellularis infection)	Porcine	屏東縣家畜疾病防治所
		68.	9	Liver abscess (Klebsillae pneumoniae)	Human	台北醫學院
			10	Xanthogranulomatous inflammation with nephrolithiasis, kidney, right. Ureteral stone, right.	Human	羅東聖母醫院
		10	Emphysematous pyelonephritis	Human	彰化基督教醫院	
	89.	10	Severe visceral gout due to kidney damaged Infectious serositis	Goose	中興大學獸醫學系	
		13	Listeric encephalitis	Lamb	屏東縣家畜疾病防治所	
		13	Tuberculous meningitis	Human	羅東聖母醫院	

細菌

	16	Swine salmonellosis with meningitis	Swine	中興大學獸醫學系
	16	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
	17	Coliform septicemia of newborn calf	Calf	屏東縣家畜疾病防治所
	20	Porcine polyserositis and arthritis (Glasser's disease)	Pig	中興大學獸醫學院
	20	Mycotic aneurysm of jejunal artery secondary to infective endocarditis	Human	慈濟醫院病理科
	21	Chronic nephritis caused by Leptospira spp	Pig	中興大學獸醫學院
	21	Ureteropyelitis and cystitis	Pig	中國化學製藥公司
	36	Pulmonary actinomycosis.	Human	耕莘醫院病理科
	37	Tuberculous peritonitis	Human	彰化基督教醫院病理科
	38	Septicemic salmonellosis	Piglet	屏東科技大學獸醫系
	38	Leptospirosis	Human	慈濟醫院病理科
	39	Mycobacteriosis	Soft turtles	屏東科技大學獸醫系
	42	Staphylococcus spp. infection	Formosa Macaque	中興大學獸醫病理學研究所
	42	Leptospirosis	Dog	台灣大學獸醫學系
	43	Leptospirosis	Human	花蓮慈濟醫院
	43	Cryptococcus and Tuberculosis	Human	彰濱秀傳紀念醫院
319	46	Placentitis, Coxiella burnetii	Goat	台灣動物科技研究所
321	46	Pneumonia, Burkholderia pseudomallei	Goat	屏東縣家畜疾病防治所
339	48	Mycoplasmosis	Rat	國家實驗動物中心
352	50	Chromobacterium violaceum Septicemia	Gibbon	Bogor Agricultural University, Indonesia
353	50	Salmonellosis	Pig	國立中興大學獸醫學院
367	52	Melioidosis (Burkholderia pseudomallei), lung	Human	花蓮慈濟醫院
370	52	Suppurative bronchopneumonia (Bordetellae trematum) with Trichosomoides crassicauda infestation	Rat	國立中興大學獸醫學院
374	53	Pulmonary coccidiomycosis	Human	彰化基督教醫院
375	53	Paratuberculosis in Macaca cyclopis	Macaca cyclopis	國立屏東科技大學獸醫學院

	379	53	Bovine Johne's disease (BJD) or paratuberculosis of cattle	Dairy cow	屏東縣家畜疾病防治所
	380	53	NTB, Mycobacterium abscessus	Human	佛教慈濟綜合醫院暨慈濟大學病理科
	382	54	Leptospirosis	Pig	國立屏東科技大學獸醫學院
	384	54	Neisseria Infected Pneumonitis	Cat	中興大學獸醫學系
	385	54	Mycobacteria avian complex dacryocystitis	Human	花蓮佛教慈濟綜合醫院
	387	54	Swine Erysipelas	Pig	屏東縣家畜疾病防治所
	396	56	Suppurative meningitis caused by Streptococcus spp in pigs	Pig	國立中興大學獸醫病理生物學研究所
	399	56	Listeric encephalitis in dairy goats	Goat	屏東縣家畜疾病防治所
	435	63	Tuberculosis	Human	花蓮佛教慈濟綜合醫院
	438	63	Porcine proliferative enteritis (PPE)	Pig	國立中興大學獸醫病理生物學研究所
	446	64	Actinomycosis (lumpy jaw) in a dairy cattle	Cattle	國立中興大學獸醫病理生物學研究所
	450	65	Mycobacterium avium infection	Human	花蓮佛教慈濟綜合醫院
	464	67	Ulcerative actinomycotic squamous plaque with focal (basal) severe dysplasia, mucosa, gingivobuccal junction, right lower gingiva in a man	Human	嘉義聖馬爾定醫院
	469	68	Scrub typhus	Human	佛教慈濟綜合醫院暨慈濟大學
	489	71	Malakoplakia due to Escherichia coli infection, left testis	Human	佛教慈濟綜合醫院暨慈濟大學
	492	71	Cystitis, bilateral ureteritis and pyelonephritis, hemorrhagic, necrotic, purulent, severe, diffuse, chronic progressive, urinary bladder, ureters and kidneys	Dog	國立中興大學獸醫病理生物學研究所
病毒	21.	3	Newcastle disease	Chicken	台灣大學獸醫學系
	22.	3	Herpesvirus infection	Goldfish	台灣大學獸醫學系
	30.	4	Demyelinating canine distemper encephalitis	Dog	台灣養豬科學研究所
	31.	4	Adenovirus infection	Malayan sun bears	台灣大學獸醫學系
	50.	7	Porcine cytomegalovirus infection	Piglet	台灣省家畜衛生試驗所
	55.	7	Infectious laryngo-tracheitis (Herpesvirus infection)	Broilers	國立屏東技術學院獸醫學系
	69.	9	Pseudorabies (Herpesvirus infection)	Pig	台灣養豬科學研究所
	78.	10	Marek's disease in native chicken	Chicken	屏東縣家畜疾病防治所

病毒

92.	11	Foot- and- mouth disease (FMD)	Pig	屏東縣家畜疾病防治所
101.	11	Swine pox	Pig	屏東科技大學獸醫學系
	13	Pseudorabies	Piglet	國立屏東科技大學
	13	Avian encephalomyelitis	Chicken	國立中興大學
	15	Contagious pustular dermatitis	Goat	屏東縣&台東縣家畜疾病防治所
	15	Fowl pox and Marek's disease	Chicken	中興大學獸醫學系
	16	Japanese encephalitis	Human	花蓮佛教慈濟綜合醫院
	17	Viral encephalitis, poliovirus infection	Lory	美國紐約動物醫學中心
	17	1. Aspergillus spp. encephalitis and myocarditis 2. Demyelinating canine distemper encephalitis	Dog	台灣大學獸醫學系
	19	Enterovirus 71 infection	Human	彰化基督教醫院
	19	Ebola virus infection	African Green monkey	行政院國家科學委員會實驗動物中心
	19	Rabies	Longhorn Steer	台灣大學獸醫學系
	20	Parvoviral myocarditis	Goose	屏東科技大學獸醫學系
	28	SARS	Human	台大醫院病理科
	28	TGE virus	swine	臺灣動物科技研究所
	28	Feline infectious peritonitis(FIP)	Feline	台灣大學獸醫學系
	30	Chicken Infectious Anemia (CIA)	Layer	屏東防治所
219	31	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	31	Cytomegalovirus colitis	Human	彰化基督教醫院病理科
221	31	Canine distemper virus Canine adenovirus type II co-infection	Canine	國家實驗動物繁殖及研究中心
223	32	1. Skin, mucocutaneous junction (lip): Cheilitis, subacute, diffuse, sever, with epidermal pustules, ballooning degeneration, proliferation, and eosinophilic intracytoplasmic inclusion bodies, Saanen goat.	Goat	台灣動物科技研究所

		2. Haired skin: Dermatitis, proliferative, lymphoplasmacytic, subacute, diffuse, sever, with marked epidermal pustules, ballooning degeneration, acanthosis, hyperkeratosis, and eosinophilic intracytoplasmic inclusion bodies.		
238	35	Hydranencephaly	Cattle	國立屏東科技大學獸醫學系
248	36	Porcine Cytomegalovirus (PCMV) infection	Swine	國立屏東科技大學獸醫學系
250	36	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	37	Vaccine-induced canine distemper	gray foxes	國立台灣大學獸醫學系
265	39	Bronchointerstitial pneumonia (PCV II infection)	Swine	台灣大學獸醫學系
295	42	Feline infectious peritonitis (FIP)	Cat	中興大學獸醫病理所
362	51	Canine distemper virus infection combined pulmonary dirofilariasis	Dog	國家實驗研究院
381	54	Polyomavirus infection of urinary tract	Human	羅東博愛醫院
405	57	Porcine circovirus-associated lymphadenitis	Swine	國立屏東科技大學獸醫教學醫院病理科
414	59	Rabies virus infection	Human	佛教慈濟綜合醫院暨慈濟大學病理科
415	59	Canine distemper virus infection	Dog	台灣大學獸醫專業學院分子暨比較病理生物學研究所
420	60	Respiratory syncytial virus infection	Human	佛教慈濟綜合醫院暨慈濟大學病理科
421	60	Porcine epidemic diarrhea (PED)	Piglet	國立中興大學獸醫病理生物學研究所
455	66	Goose Haemorrhagic Polyomaviruses (GHPV)	Goose	農委會家畜衛生試驗所
456	66	HPV associated small cell neuroendocrine carcinoma of uterine cervix	Human	羅東博愛醫院病理科

	458	66	Roventricular dilatation disease (PDD)	Cacatuini	國立中興大學獸醫病理生物學研究所
	468	68	Avian poxvirus	Eagle	國立中興大學獸醫病理生物學研究所
	472	68	Suspected viral infection with secondary aspergillosis	Parrot	國立中興大學獸醫病理生物學研究所
黴菌	23.	3	Chromomycosis	Human	台北病理中心
	47.	7	Lung: metastatic carcinoma associated with cryptococcal infection. Liver: metastatic carcinoma. Adrenal gland, right: carcinoma (primary)	Human	三軍總醫院
	48.	7	Adiaspiromycosis	Wild rodents	台灣大學獸醫學系
	52.	7	Aspergillosis	Goslings	屏東縣家畜疾病防治所
	53.	7	Intracavitary aspergilloma and cavitory tuberculosis, lung.	Human	羅東聖母醫院
	54.	7	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.	13	Mucormycosis Diabetes mellitus	Human	花蓮佛教慈濟綜合醫院
		15	Eumycotic mycetoma	Human	花蓮佛教慈濟綜合醫院
		17	1. Aspergillus spp. encephalitis and myocarditis 2. Demyelinating canine distemper encephalitis	Dog	台灣大學獸醫學系
		43	Systemic Candidiasis	Tortoise	中興大學獸醫學院
		45	Alfatoxicosis in dogs	Canine	國立臺灣大學獸醫專業學院
		322	Allergic fungal sinusitis	Human	羅東博愛醫院
		326	Meningoencephalitis, Aspergillus flavus	Cat	國立臺灣大學獸醫專業學院
		331	Histoplasmosis	Human	花蓮慈濟醫院病理科
		332	Pulmonary Blastomycosis	Rat	中興大學獸醫學院
		355	Encephalitozoonosis	Rabbit	國立中興大學獸醫學院
	356	Eosinophilic granuloma with fungal infection, Skin	Cat	國立臺灣大學獸醫專業學院	
	386	Dermatophytic pseudomycetoma	Cat	台灣動物科技研究所	
	395	Systemic Cryptococcus neoformans infection in a Golden Retriever	Dog	國立台灣大學分子暨比較病理生物學研究所	
	441	Protothecosis	Dog	國家實驗動物繁殖及研究中心	

	449	65	Porcine epidemic diarrhea (PED)	Piglet	國立台灣大學分子暨比較病理生物學研究所
寄生蟲	14.	2	Dirofilariasis	Dog	台灣省家畜衛生試驗所
	15.	2	Pulmonary dirofilariasis	Human	台北榮民總醫院
	20.	3	Sparganosis	Human	台北榮民總醫院
	46.	7	Feline dirofilariasis	Cat	美國紐約動物醫學中心
	49.	7	Echinococcosis	Human	台北榮民總醫院
	60.	8	Intestinal capillariasis	Human	台北馬偕醫院
	64.	8	Adenocarcinoma of sigmoid colon Old schistosomiasis of rectum	Human	省立新竹醫院
	66.	8	Echinococcosis	Chapman's zebra	台灣大學獸醫學系
	67.	9	Hepatic ascariasis and cholelithiasis	Human	彰化基督教醫院
		13	Parasitic meningoencephalitis, caused by <i>Toxocara canis</i> larvae migration	Dog	臺灣養豬科學研究所
		17	Disseminated strongyloidiasis	Human	花蓮佛教慈濟綜合醫院
		17	Eosinophilic meningitis caused by <i>Angiostrongylus cantonensis</i>	Human	台北榮民總醫院 病理檢驗部
	156	19	<i>Parastrongylus cantonensis</i> infection	Formosan gem-faced civet	中興大學獸醫學院
		19	<i>Capillaria hepatica</i> , <i>Angiostrongylus cantonensis</i>	Norway Rat	行政院農業委員會 農業藥物毒物試驗所
	29	Colnorchiasis	Human	高雄醫學院附設醫院	
	29	Trichuriasis	Human	彰化基督教醫院	
寄生蟲		29	<i>Psoroptes cuniculi</i> infection (Ear mite)	Rabbit	農業藥物毒物試驗所
		29	Pulmonary dirofilariasis	Human	和信治癌中心醫院
		29	Capillaries philippinesis	Human	和信治癌中心醫院
		29	Adenocarcinoma with schistosomiasis	Human	花蓮佛教慈濟綜合醫院
		41	Etiology-consistent with <i>Spironucleus (Hexamita) muris</i>	Rat	國家實驗動物繁殖及研究中心
	327	46	Dermatitis, mange infestation	Serow	中興大學獸醫學院
	328	46	<i>Trichosomoides crassicauda</i> , urinary bladder	Rat	國家實驗動物中心
	362	51	Canine distemper virus infection combined pulmonary dirofilariasis	Dog	國家實驗研究院
	370	52	Suppurative bronchopneumonia (<i>Bordetellae trematum</i>) with <i>Trichosomoides crassicauda</i> infestation	Rat	國立中興大學獸醫學院
	416	59	Toxoplasmosis in a finless porpoise	Finless porpoise	國立屏東科技大學獸醫教學醫院病理科

		63	Liver milk spots in pig	Pig	中興大學獸醫病理生物學研究所
	453	66	Liver fluke infection	Buffalo	中興大學獸醫病理生物學研究所
	471	68	Haemosporidian parasite infection	pigeon	國立台灣大學分子暨比較病理生物學研究所
原蟲	4.	1	Cryptosporidiosis	Goat	台灣養豬科學研究所
	15.	2	Amoebiasis	Lemur fulvus	台灣養豬科學研究所
	16.	2	Toxoplasmosis	Squirrel	台灣養豬科學研究所
	17.	2	Toxoplasmosis	Pig	屏東技術學院獸醫學系
	51.	7	Pneumocystis carinii pneumonia	Human	台北病理中心
	57.	8	Cecal coccidiosis	Chicken	中興大學獸醫學系
	65.	8	Cryptosporidiosis	Carprine	台灣養豬科學研究所
	211	30	Avian malaria, African black-footed penguin	Avian	臺灣動物科技研究所
	242	35	Neosporosis	Cow	國立屏東科技大學獸醫學系
	263	38	Intestinal amebiasis	Human	彰化基督教醫院病理科
	320	46	Cutaneous leishmaniasis	Human	佛教慈濟綜合醫院
	325	46	Myocarditis/encephalitis, Toxoplasma gondii	Wallaby	國立臺灣大學獸醫專業學院
	443	65	Brain toxoplasmosis in a man	Human	佛教慈濟綜合醫院病理科
	462	67	Toxoplasmosis	Human	佛教慈濟綜合醫院病理科
	470	68	Leucocytozoonosis	chickens	中興大學獸醫病理生物學研究所
立克次體	229	32	Necrotizing inflammation due to scrub typhus	Human	佛教慈濟醫院病理科
	251	36	Scrub typhus with diffuse alveolar damage in bilateral lungs.	Human	佛教慈濟醫院病理科
皮膚	216	30	Cytophagic histiocytic panniculitis with terminal hemophagocytic syndrome	Human	佛教慈濟綜合醫院病理科
	359	51	Eosinophilic granuloma with fungal infection, Skin	Cat	國立臺灣大學獸醫專業學院
	360	51	Septa panniculitis with lymphocytic vasculitis	Human	慈濟綜合醫院暨慈濟大學
其它	9.	2	Perinephric pseudocyst	Cat	台灣大學獸醫學系
	10.	2	Choledochocyst	Human	長庚紀念醫院
	11.	2	Bile duct ligation	Rat	中興大學獸醫學系

37.	4	Myositis ossificans	Human	台北醫學院
75.	9	Acute yellow phosphorus intoxication	Rabbits	中興大學獸醫學系
76.	10	Polycystic kidney bilateral and renal failure	Cat	美國紐約動物醫學中心
80.	10	Glomerular sclerosis and hyalinosis, segmental, focal, chronic, moderate Benign hypertension	SHR rat	國防醫學院 & 國家實驗動物繁殖及研究中心
83.	10	Phagolysosome-overload nephropathy	SD rats	國家實驗動物繁殖及中心
85.	10	Renal amyloidosis	Dog	台灣養豬科學研究所
89.	10	Severe visceral gout due to kidney damaged infectious serositis	Goose	中興大學獸醫學系
91.	10	Hypervitaminosis D	Orange-rumped agoutis	台灣大學獸醫學系
	14	Cystic endometrial hyperplasia	Dog	臺灣養豬科學研究所
	14	Cystic subsurface epithelial structure (SES)	Dog	國科會實驗動物中心
	15	Superficial necrolytic dermatitis	Dog	美國紐約動物醫學中心
	15	Solitary congenital self-healing histiocytosis	Human	羅東博愛醫院
	15	Alopecia areata	Mouse	國家實驗動物繁殖及研究中心
	17	Avian encephalomalacia (Vitamin E deficiency)	Chicken	國立屏東科技大學獸醫學系
151	18	Osteodystrophia fibrosa	Goat	台灣養豬科學研究所&台東縣家畜疾病防治所
	20	Hypertrophic cardiomyopathy	Pig	台灣大學獸醫學系
	21	Chinese herb nephropathy	Human	三軍總醫院病理部及腎臟科
	21	Acute pancreatitis with rhabdomyolysis	Human	慈濟醫院病理科
	21	Malakoplakia	Human	彰化基督教醫院
	25	Darier's disease	Human	高雄醫學大學病理科
191	27	1. Polyarteritis nodosa 2. Hypertrophic Cardiomyopathy	Feline	台灣大學獸醫學系
193	27	Norepinephrin cardiotoxicity	Cat	台中榮總
196	27	Cardiomyopathy (Experimental)	Mice	綠色四季
212	30	Kikuchi disease (histiocytic necrotizing lymphadenitis)	Lymphadenitis	耕莘醫院病理科
225	32	Calcinosis circumscripta, soft tissue of the right thigh, dog	Dog	台灣大學獸醫所
230	34	Hemochromatosis, liver, bird	Bird	台灣大學獸醫學系
234	34	Congenital hyperplastic goiter	Holstein calves	屏東縣家畜疾病防治所

其它

其他	236	34	Hepatic lipidosis (fatty liver)	Rats	中興大學獸醫學病理學研究所
	237	35	Arteriovenous malformation (AVM) of cerebrum	Human	耕莘醫院病理科
	244	35	Organophosphate induced delayed neurotoxicity in hens	Hens	中興大學獸醫學病理學研究所
	257	37	Severe lung fibrosis after chemotherapy in a child with Ataxia- Telangiectasia	Human	慈濟醫院病理科
	294	42	Arteriovenous malformation of the left hindlimb	Dog	台灣大學獸醫學系
	299	43	Polioencephalomalacia	Goat kid	屏東家畜疾病防治所
	310	44	Hyperplastic goiter	Piglet	屏東家畜疾病防治所
	311	44	Melamine and cyanuric acid contaminated pet food induced nephrotoxicity	Rat	中興大學獸醫學病理學研究所
	318	45	Alfatoxicosis	Canine	國立臺灣大學獸醫專業學院
	333	47	Lordosis, C6 to C11	Penguin	國立臺灣大學獸醫專業學院
	341	49	Pulmonary placental transmogrification	Human	羅東博愛醫院
	345	49	Acute carbofuran intoxication	Jacana	國立中興大學獸醫學院
	350	50	Malakoplakia, liver	Human	慈濟綜合醫院暨慈濟大學
	351	50	Eosionphilic granuloma, Right suboccipital epidural mass	Human	羅東博愛醫院病理科
	359	51	Eosinophilic granuloma with fungal infection, Skin	Cat	國立臺灣大學獸醫專業學院
	360	51	Septa panniculitis with lymphocytic vasculitis	Human	慈濟綜合醫院暨慈濟大學
	361	51	Hepatotoxicity of SMA-AgNPs	Mouse	國立中興大學獸醫病理生物學研究所
	363	51	Hypertrophy osteopathy	Cat	國立臺灣大學獸醫專業學院
	372	52	Snake bite suspected, skin and spleen	Monkey (red guenon)	國立臺灣大學獸醫專業學院
	383	54	Langerhans cell histiocytosis	Human	聖馬爾定醫院病理科
388	54	Canine protothecosis	Dog	國立臺灣大學獸醫專業學院	
392	55	Lithium nephrotoxicity	Human	佛教慈濟綜合醫院暨慈濟大學病理科	
398	56	Gamma-knife-radiosurgery-related demyelination	Human	佛教慈濟綜合醫院暨慈濟大學病理科	

400	56	Canine Disseminated form Granulomatous Meningoencephalitis (GME)	Dog	國立屏東科技大學獸醫教學醫院病理科
419	60	Mucopolysaccharidosis	Cat	國立中興大學獸醫病理生物學研究所
426	61	Phleboliths in a man	Human	台北醫學大學附設醫院口腔外科口腔病理科
427	61	Visceral gout in a Green iguana (Iguana iguana)	Iguana	中興大學獸醫病理生物學研究所
431	62	pulmonary alveolar proteinosis in a man	Human	羅東博愛醫院病理科
432	62	Congenital pulmonary airways malformation, type 2 in a women	Human	高雄醫學大學附設醫院
437	63	Large solitary luteinized follicular cyst of pregnancy and puerperium	Human	羅東博愛醫院病理科
454	66	Eosinophilic granuloma	Human	佛教慈濟綜合醫院暨慈濟大學病理科
461	67	Intestinal emphysema	Pig	中興大學獸醫病理生物學研究所
466	67	Nodular goiter	Human	彰化秀傳醫院病理科
474	68	Parastrongyliasis (Previously called Angiostrongyliasis)	squirrel	中興大學獸醫病理生物學研究所
475	69	Bronchogenic cyst	Dog	國立臺灣大學獸醫專業學院
480	69	Toxic pneumonitis caused by inhalation of waterproofing spray	Dog	中興大學獸醫學病理學研究所
486	70	IgG4-related sclerosing cholangitis (ISC)	Human	天主教耕莘醫療財團法人耕莘醫院
488	70	Crohn's disease	Human	彰化基督教醫院病理部
Gross	64	Hydronephrosis	Pig	中興大學獸醫病理生物學研究所
Gross	65	1. Traumatic pericarditis, severe, chronic progressive, diffuse, heart. 2. Hardware disease	Cattle	中興大學獸醫病理生物學研究所
497	72	Combined central and peripheral demyelination (CCPD)	Dog	國立臺灣大學獸醫專業學院
498	72	Inflammatory demyelinating pseudotumour	Human	佛教慈濟綜合醫院暨慈濟大學病理科
500	72	Ischemic stroke in a dog	Dog	中興大學獸醫病理生物學研究所

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

張惠雯 助理教授

cscptaiwan@gmail.com

02-33661296

106 台北市羅斯福路四段一號 國立台灣大學 獸醫專業學院

-----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：一般會員新台幣壹仟元，學生會員壹佰元。
【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、入會費及常年會費繳交方式：以銀行轉帳或匯款（006 合作金庫銀行、帳號：0190-717-052017、戶名：中華民國比較病理學會）；並請填妥入會申請表連同銀行轉帳交易明細表或匯款單以郵寄或傳真方式寄回中華民國比較病理學會秘書處 張惠雯老師收。地址：106 台北市羅斯福路四段一號 國立台灣大學 獸醫專業學院
電話：02-33661296

中華民國比較病理學會入會申請及會員卡

會電腦編號

姓名	中文		姓別	<input type="checkbox"/> 男 <input type="checkbox"/> 女	出生 身 份 証	民國	年	月	日	出生地	
	英文		會員身份： <input type="checkbox"/> 一般 <input type="checkbox"/> 學生 <input type="checkbox"/> 贊助								
學歷	(1)				稱謂(圈選)	先生	小姐	醫師	獸醫師	教授	博士
	(2)				研究員	主任	其他:				
	(3)				研究 興 趣	(1)					
	(4)					(2)					
主要 經 歷	機關名稱			職務	起			止			
					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： 電子信箱(E-mail)：											
茲 贊 同 貴會宗旨擬加入為會員嗣後並願遵守一切章共圖發展 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	