

**Chinese Society of Comparative Pathology**

中華民國比較病理學會  
第 83 次比較病理學研討會  
消化道病理討論專題二



主辦單位

**Chinese Society of Comparative Pathology**

中華民國比較病理學會

國立臺灣大學獸醫專業學院

中華民國 111 年 4 月 16 日 (April 16, 2022)

## Schedule

### 83<sup>rd</sup> MEETING OF COMPARATIVE PATHOLOGY

中華民國比較病理學會 第 83 次比較病理學研討會

#### 消化道病理討論專題二

時間：111 年 4 月 16 日（星期六）

形式：線上會議（Google meet）

電話：02-33663760

Time (時間)	Schedule (議程)		Moderator (主持)
8:30~9:20	Registration (報到)		
9:20~9:30	Opening Ceremony (致詞) 鄭謙仁 理事長		
9:30~10:30	專題演講	主講：彭奕仁 副教授 題目：non-alcoholic fatty liver disease	鄭謙仁 理事長
10:30~10:45	Break		
10:45~11:45	專題演講	主講：廖俊旺 教授 題目：有關健康食品護肝動物模式病理評估	鄭謙仁 理事長
11:45~13:30	午餐 及 理監事會議（理監事會議定於 11:45~13:00，會議連結見 email）		
13:30~13:40	會員大會		
13:40~14:05	Case 569	Shih Chia-Wen (施洽雯), M.D., M.S. <sup>1</sup> ; Lu Chang-Yun (呂長運), M.D. <sup>2</sup>  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)  Slide: <a href="http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2004">http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2004</a>	黃威翔 秘書長
14:05~14:30	Case 570	Hao-Kai, Chang (張皓凱)*, DVM, VP <sup>1</sup> ; Hsien Chang, Lin (林顯昌), MS <sup>1</sup> ; Chi-Ya, Hung(洪琪雅), MS <sup>1</sup> ; Yi-Shun Lee (李奕萱), MS <sup>1</sup>  <sup>1</sup> Li-Tzung Biotech Inc.(立眾生技有限公司)  Slide: <a href="http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2005">http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2005</a> Slide: <a href="http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2006">http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2006</a>	黃威翔 秘書長

14:30~14:55	Case 571	<p>Tsao, Wen-Tien (曹文恬), DVM, MS<sup>1</sup>; Jiang, Jia-Wei (江家瑋), DVM, MS<sup>1</sup>; Luo, I-Chi (羅怡琪), DVM, MS<sup>1</sup></p> <p><sup>1</sup>HOPE Veterinary Pathology Diagnostic Center (霍普獸醫病理診斷中心)</p> <p>Slide: <a href="http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2027">http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2027</a></p>	
14:55~15:05	Break		
15:05~15:30	Case 572	<p>Shao-Wei Yang (楊少葳), DVM<sup>1</sup>; Po-Chen Liu (劉柏辰), DVM, BS<sup>2</sup>; Hue-Ying Chiou (邱慧英), DVM, PhD.<sup>3</sup>; Jui-Hung Shien (沈瑞鴻), DVM, PhD.<sup>1</sup>; Jiunn-Wang Liao (廖俊旺), DVM, PhD.<sup>2,3,*</sup></p> <p><sup>1</sup> Department of veterinary medicine, National Chung Hsing University (國立中興大學獸醫學系)</p> <p><sup>2</sup> Animal Disease Diagnostic Center, National Chung Hsing University (國立中興大學動物疾病診斷中心)</p> <p><sup>3</sup> 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)</p> <p>Slide: <a href="http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2003">http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2003</a></p>	黃威翔 秘書長
15:30~15:55	Case 573	<p>Chang, Junn-Liang (張俊梁), MD, PhD, Liu, Kuang-Ting (劉光庭), MT, MS, Chang, Yueh-Ching (張月清) MT, MS,</p> <p>Department of Pathology and Laboratory Medicine, Taoyuan Armed Forces General Hospital, Taoyuan City, Taiwan. (國軍桃園總醫院病理檢驗部)</p> <p>Taipei Veterans General Hospital Taoyuan Branch (臺北榮民總醫院桃園分院)</p> <p>Slide: <a href="http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2000">http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2000</a></p> <p>Slide: <a href="http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=1999">http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=1999</a></p>	黃威翔 秘書長
15:55~	General Discussion (綜合討論) 鄭謙仁 理事長		

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## Special Lecture (專題演講)

### Non-alcoholic fatty liver disease

彭奕仁 (Yi-Jen Peng) 副教授

三軍總醫院病理部/國防醫學院醫學系病理學科

Non-alcoholic fatty liver disease (NAFLD) affects one quarter of the global population and associated to obesity, metabolic syndrome and type 2 diabetes mellitus. NAFLD can progress to non-alcoholic steatohepatitis (NASH), cirrhosis and associated with hepatocellular carcinoma. Lipid accumulates within hepatocytes leading lipotoxicity, mitochondrial dysfunction, inflammation, and fibrosis. NAS (NAFLD activity score) is commonly used for semi-quantitatively histologic evaluation: steatosis (0–3), lobular inflammation (0–3), hepatocellular ballooning (0–2) and fibrosis (0–4). Fibrosis is the determinant of clinical outcomes in patients with NASH. Restrict lifestyle medication may regress disease progression including reduced content of free sugars, refined carbohydrates and saturated fat. However, there are currently no approved pharmacologic therapies for NASH. Several NASH drugs are currently in phase II and II development. The pathogenesis is complex, personalized NASH therapeutics might be required



## **Special Lecture (專題演講)**

**有關健康食品護肝動物模式病理評估**

**(Pathology Evaluation of Liver Protection in Animal Models for Health Foods)**

**廖俊旺 教授 (Prof. Jiunn-Wang Liao)**

**中興大學獸醫學院獸醫病理生物學研究所**

**(Graduate Institute of Veterinary Pathobiology, National Chung Hsing University)**

The liver disease represents one of a major global public health problem. The viral hepatitis, through A to E, is the diseases of the first formal declaration by WHO. The second one relating is alcoholic liver disease and non-alcoholic fatty liver disease (NAFLD). The presence of liver steatosis not only causes by alcohol consumption and steatogenic drugs, but also the other factors to induce lipid accumulation in hepatocytes, such as high fat diet.

Currently, NAFLD is the most common chronic liver disease with an estimated prevalence of 25% worldwide. The prevalence of NAFLD parallels the global increase in overweight and obesity which is the result of an increase of caloric intake over expenditure that leads to an increase in body mass index (BMI). It is estimated that there are at least 1.46 billion obese adults worldwide. As a result, NAFLD will become the most common cause of liver cirrhosis, decompensated liver disease or hepatocellular carcinoma (HCC) in the short term, and thus the most important indication for liver transplantation.

Liver biopsy is the ‘golden standard’ for NASH diagnosis in clinical setting and a simple NAFLD scoring system with high reproducibility is applicable for different rodent models and for all stages of NAFLD etiology. Numerous rodent models using dietary-based rodent models of methionine and choline deficiency, high fat, cholesterol, fructose, or chemical/drug-induced models of carbon tetrachloride, N-acetyl-p-aminophenol (APAP), thioacetamide (TAA), or alcohol induced fatty liver models which have been setup and applied in preclinical rodent models of liver protection for Health Foods supplement in Taiwan. No single animal model has encompassed the full spectrum of human disease progression, but they can imitate particular characteristics of human disease. Known the fatty liver of the histopathological characteristics and score evaluations between human and rodent models, the researchers could choose the appropriate animal model for their research.





# Case Diagnosis

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消化道病理專題二

民國 111 年 4 月 16 日

( 閱片網址 : <http://www.ivp.nchu.edu.tw/slidecenter.php?id=513> )

Case No.	Presenter	Slide No.	Diagnosis
Case 569	施洽雯	LP22-588	Gastric Schwannoma Slide: <a href="http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2004">http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2004</a>
Case 570	張皓凱	2021-S714 2021-S700	Protothecosis, dog Slide: <a href="http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2005">http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2005</a> Slide: <a href="http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2006">http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2006</a>
Case 571	曹文恬	21-645	Feline inductive odontogenic tumor (FIOT), cat Slide: <a href="http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2027">http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2027</a>
Case 572	楊少葳	CP22-02001A	Systemic Coccidiosis, ducks Slide: <a href="http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2003">http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2003</a>
Case 573	張俊梁	190320H_T2 190320E_T1	Multiple primary malignant (MPM) (Synchronous / metachronous? or metastatic) non-Hodgkin lymphomas (DLBCLs) of the jejunum with JJ intussusception with mesenteric lymph nodal and pleural involvement. Slide: <a href="http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2000">http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2000</a> Slide: <a href="http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=1999">http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=1999</a>



## **Case Number: 569**

**Slide Number:** LP22-588

**Slide View:** [http://www.ivp.nchu.edu.tw/ivp\\_slide\\_view.php?id=2004](http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2004)

Shih Chia-Wen (施洽雯), M.D., M.S.<sup>1</sup>; Lu Chang-Yun (呂長運), M.D.<sup>2</sup>

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

### **CASE HISTORY:**

**Signalment:** 52-year-old woman. .

#### **Clinical History:**

A 52-year-old woman who has suffered from occasional chest pain at night for a period. The chest pain was not related to effort and more frequent in recent one month. For she had history of MPV (mitral valve prolapse) told by YMUH and surgery was suggested, she came to the OPD of CVS (cardiovascular surgery) of LO-Tung Poh-Ai hospital for further evaluation. She denied past history of hypertension, coronary artery disease and DM (diabetes mellitus). The abdominal sonography showed a hypoechoic tumor closely to left lateral segment of liver and probably within gastric wall and measuring 1.8 x 1.5 cm. The CT scan showed a submucosal tumor at lesser curvature of stomach with mild enhancement and measuring 2.2 cm in diameter. No necrosis or calcification was noted. The liver and spleen showed normal size with smooth contour and normal density. A 1.5 cm hypodense lesion at S3 of liver with peripheral nodular enhancement was also noted and hemangioma was suspected. There was no evidence of lymphadenopathy. The chest X-ray was normal. Esophagogastroduodenoscopy was performed and showed a submucosal tumor at lesser curvature side of angle. Under the impression of suspicious GIST, laparoscopic gastric tumor resection was performed. The specimen was sent to the department of pathology for pathologic diagnosis. Grossly, the specimen submitted consisted of a partial stomach measuring 2.3 x 2.2 x 1.8 cm.. Cut section showed a well-defined tumor in muscle layer and measuring up to 2.0 x 1.8 x 1.3 cm. The tumor was grayish-brown in color and soft-elastic in consistency. No hemorrhage or necrosis was noted.

#### **Clinical Pathology:**

BUN: 13 mg/dL (6-20 mg/dL), Creatinine: 0.8 mg/dL (0.5-1.1 mg/dL), Glucose: 104 mg/dL (70-100 mg/dL), Na: 141 mmol/L (135-145 mmol/L), K: 4.3 mmol/L (3.5-5.1 mmol/L), AST (GOT): 17 U/L (5-40 U/L), ALT (GPT): 13 U/L (5-40 U/L), RBC: 4.46x10<sup>6</sup>/uL (4.2-5.4 x10<sup>6</sup>/uL), Hb: 13.2 gm/dL (12.0-16.0 gm/dL), Hct: 39.3 % (37-47%), Plt: 21.6 x10<sup>4</sup>/dL (15-40 x10<sup>4</sup>/dL),

WBC:  $4.3 \times 10^3/\mu\text{L}$  ( $4.5 - 11.0 \times 10^3/\mu\text{L}$ ), AFP: 7.71 ng/mL (<7 ng/mL). CEA: 2.4 ng/mL (<5 ng/mL), CA199: <0.6 U/mL (<27 U/mL)

## **CASE RESULT:**

### **Histopathologic Findings:**

Histopathological examination revealed a well defined tumor in smooth muscle layers. The mucosa was intact. The tumor is composed of proliferated spindle-shaped cells of varying cellularity, mild irregular in size and shape with spindle and mild hyperchromatic nuclei, moderate amount of cytoplasm and indistinct nucleoli. Areas of palisading arrangement were noted. No tumor necrosis was noted. No significant mitotic figure was noted. No lymphatic duct or blood vessel invasion was noted.

### **Immunohistochemistry:**

Sections of tissue specimen were subjected for immunohistochemical evaluation. On immunohistochemical analysis, the tumor cells were positive for S-100, calretinin, CD56 and CD34 and negative for CD117, Dog 1 and actin. The Ki67 index was less than 1%.

### **Differential diagnosis:**

1. Neurofibroma.
2. Leiomyoma.
3. Gastrointestinal stromal tumor (GIST).
4. Schwannoma.

**Diagnosis:** Gastric Schwannoma.

### **Comments:**

Mesenchymal tumors of the gastrointestinal (GI) tract are mainly comprised of a spectrum of spindle cell tumors which include gastrointestinal stromal tumors (GISTs), leiomyomas, neurofibromas and schwannomas. Among these neoplasms, GISTs are the most common and a great majority (50-60%) of them occur in the stomach.

Gastric schwannoma (GS) was first reported in 1988 by Daimaru et al. who identified schwannoma as a primary gastrointestinal tumor based on the positive S-100 protein immunostaining.

Schwannomas, also known as neurilemmomas or neurinomas, are benign neurogenic tumors, originating from Schwann cells, which normally wrap around the axons of the peripheral nerves.

Theoretically, schwannomas can develop anywhere along the peripheral course of nerve, however, it rarely in the GI tract. GS accounts for only 0.2% of all gastric tumors, 6.3% of gastric mesenchymal tumors, and 4% of all benign tumors of the stomach. To date, about 210 cases of GS have been reported worldwide.

The mean age of the GSs was  $56.82 \pm 13.77$  years (range, 10–90 years), and 86.43% were aged > 40 years. Thus, it appears that GS predominantly affects adults and is generally found in patients aged 40 to 60 years. A marked female preponderance has been reported (female:male ratio of 4:1). The majority of cases of GS are asymptomatic (55%) and that the most common initial symptom is abdominal pain or discomfort (21%) and GI bleeding (13%). The other symptoms, which are very rare, included palpable abdominal mass (3%), poor appetite (3%), dyspepsia (2%), weight loss (1%), and nausea or vomiting (0.6%). Yang et al. reported a rare case of gastroduodenal intussusception due to GS.

GS typically grows as a solitary lesion. The most common site of GS among all of the cases was the gastric body (59.3%), followed by the gastric antrum (26.7%) and fundus (12.0%). GS arising from the cardia was rare (2%). Additionally, the tumor size was variable: the greatest diameter size ranged from 0.8 to 15.5 cm, with a mean of  $4.69 \pm 2.66$  cm (median: 4.0 cm).

Microscopically, the GSs are same as schwannomas in other sites of human body. GS is comprised of spindle cells of varying cellularity with relatively bland cytology and focal nuclear palisading. There was lymphocytic cuffing at the periphery of the tumor. Immunohistochemically, the tumor cells of GSs are positive for S-100 and negative or positive for CD34, and negative for CD117, desmin, DOG1, Ki-67, and smooth muscle actin (SMA). Before the recognition of S-100 antigen and c-kit antigen in GSs and in GISTs, respectively, these neoplasms were most often classified as leiomyoma, leiomyosarcoma, or gastrointestinal autonomic nerve tumor. In 1983, Mazur and Clark first introduced the vague term “gastrointestinal stromal tumor” (GIST). In the past, GSs were included in the GIST category. In 1988, Daimaru et al. successfully identified schwannoma as a primary GI tumor based on the positive S-100 stain. GIST also became a distinct GI cancer diagnostic category when it was discovered that nearly all GIST cells express c-kit protein. The differential diagnosis for a gastric submucosal tumor (SMT) should include gastric schwannomas. Furthermore, GI schwannomas are benign neoplasms with excellent prognosis after surgical resection, whereas 10–30% of GISTs have malignant behavior. Hence, it is important to distinguish GSs from GISTs to make an accurate diagnosis to optimally guide treatment options.

The precise preoperative diagnosis to distinguish between GS and another SMT remains difficult, even with modern imaging modalities such as sonography, endoscopy, CT or positron emission tomography (PET). Only a pathological examination can distinguish GSs from other submucosal tumors, with positive staining for S-100 protein, and negative for c-kit, CD34, desmin, or SMA.

For Gs, a complete resection with a negative surgical margin (R0) of GS is considered the best treatment, with an excellent prognosis. Recently, laparoscopic and endoscopic cooperative surgery (LECS) has been increasingly applied for gastric SMTs. The conventional LECS procedure runs the potential risk of gastric content or tumor cell spilling into the abdominal cavity.

GS is a benign neoplasm with no recurrence irrespective of its size. Recurrent disease has been only observed after incomplete resection. For GSs are usually benign and patients have an excellent prognosis after curative resection. However, there were 10 reported cases of malignant GS in the

past, which represented 4.5% of all reported GSs. In the cases of malignant GS, 5 patients were male and 5 were females, with a mean age of  $49.78 \pm 22.44$  years (range, 10–73 years). Among these cases, the earliest metastasis and recurrence were detected at 3 months after surgery. These patients commonly presented with clinical symptoms such as abdominal pain and GI bleeding. Thus, although this should not be considered definitive criteria by which to classify the tumors as benign or malignant, the presence of such clinical symptoms may provide valuable cues for clinicians. Nevertheless, regular follow-up is necessary for GS.

In summary, we underscore the importance of including gastric schwannomas in the differential diagnosis when preoperative imaging studies reveal a submucosal, exophytic gastric mass. Specific clinical manifestations and imaging findings of gastric schwannomas are rarely observed. Preoperative diagnosis is thus difficult, and a postoperative pathological examination is required to achieve a definitive diagnosis.

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## **Case Number: 570**

**Slide Number:** 2021-S714, 2021-S700

### **Slide View:**

[http://www.ivp.nchu.edu.tw/ivp\\_slide\\_view.php?id=2005](http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2005)(2021-S714)

[http://www.ivp.nchu.edu.tw/ivp\\_slide\\_view.php?id=2006](http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2006)(2021-S700)

Hao-Kai, Chang (張皓凱)\*, DVM, VP<sup>1</sup>; Hsien Chang, Lin (林顯昌), MS<sup>1</sup>; Chi-Ya, Hung(洪琪雅), MS<sup>1</sup>; Yi-Shun Lee (李奕萱), MS<sup>1</sup>

<sup>1</sup> Li-Tzung Biotech Inc.(立众生技有限公司)

## **CASE HISTORY:**

**Signalment:** A 2-year-old, mongrel, neutered bitch

The patient was a young dog kept in a cattle ranch. It had long-term diarrhea and mucus stools, but the spirit and appetite had no obvious abnormality. However, the dog's diarrhea suddenly became severe and bloody diarrhea began. The owner also found that the dog was blind. The clinician performed laparotomy and found thickening of the descending colon, then performed intestinal sampling and sent for histopathology examination.

The dog died a few days after the initial sampling. The clinician performed an autopsy and found multiple miliary nodules on the surfaces of the kidneys, pancreas, and liver in the abdominal cavity. Because the dog lived in a cattle farm, the owner worried that the dog may have other zoonotic problems, so he collected the mesenteric lymph nodes for examination.

## **Gross Findings:**

According to the photos provided by the sending physician, multiple milky white to yellowish white miliary nodules were seen on the surface of the duodenum, pancreas, kidney and liver during autopsy.

The tissue submitted for inspection for the first time was a local sample of the intestine. The sample was extremely small, and only the intestinal mucosa seemed to be thickened with the naked eye.

The mesenteric lymph nodes sampled for examination after the death of the dog was severely swollen in appearance. The lymph node was firm to the touch, and there were inconspicuous miliary nodules about 0.1 cm in diameter on the surface of the lymph nodes, which were slightly firmer to the touch than the surrounding tissue. Its section was milky white, and the cortex and medulla were still recognizable, but not obvious. The medulla of the lymph node was dark brown and is soft to the touch.

## **CASE RESULT:**

### **Histopathological Findings:**

Microscopically, a large number of inflammatory cells infiltrated the mucosa in the intestinal tissue, accompanied by necrosis and hemorrhage. The inflammatory response extends from the mucosal layer to the muscle layer, and the inflammatory cells were mainly macrophages and lymphocytes. At high magnification, numerous non-staining or very hypochromic round to oval structures were seen in the inflamed area.

The mesenteric lymph nodes showed light staining in the cortex, indicating significant loss of lymphocytes, and there was also a large accumulation of hypochromic cells in the medulla. Under high magnification, it could be seen that the hypochromic structures were mostly accumulated in the cytoplasm of foamy macrophages, which were oval or circular. Similar materials accumulation were also seen in partially dilated lymphatic vessels.

To confirm the hypochromic materials form in H&E staining, periodic acid-Schiff (PAS) (TASS02, BioTnA, Taiwan) was used for staining. These substances were strongly positive for PAS. The pathogen's oval or round structure has a strongly PAS-positive outer membrane, which is the wall of its sporangia. The sporangia were hollow, or there were PAS-positive round particles in the cyst cavity. These round particles are sporangiospores.

**Pathological Diagnosis:** Protothecosis, with severe, chronic, necrotizing to necrohemorrhagic, granulomatous colitis and lymphadenitis, colon and mesenteric lymph node

### **Differential diagnosis:**

1. Protothecosis

### **Discussion:**

*Prototheca* spp. is a colorless green alga of the genus *Chlorella*. Currently known species include *P. zopfii*, *P. wickerhamii*, *P. stagnora*, *P. blaschkeae*, *P. ulmea*, *P. cutis*. *P. zopfii*, *P. wickerhamii*, *P. blaschkeae* and *P. cutis* are more pathogenic. *Prototheca* is widely present in the environment, including still pool water, sewage, animal excrement, soil, etc., and there are cases of infection all over the world, among which North America has the most cases reported. Although *prototheca* is widespread throughout the world, animal infections are only rarely reported in dogs, cats, cattle, and wild animals. In cattle, it is mostly mastitis caused by *P. zopfii* and *P. blaschkeae*. In cats, *P. wickerhamii* is more common to cause large, hard nodules on the skin of the limbs, nose, and ear wings. In addition to *P. wickerhamii*, which can cause skin infections in dogs, *P. zopfii* often causes systemic sporadic infections. The common clinical symptoms of canine protothecosis are diarrhea, especially hemorrhagic colitis. In addition, it may cause disseminated infections of the eyeball, ear, skin, skeletal muscle, liver, kidney, heart, central nervous system, etc. Eyeball infection is one of the

most common infection sites in disseminated infection. According to research, about 77% of dogs with diffuse infection have eye lesions. The dog in this case had colonic hemorrhagic necrotizing enteritis, which may have spread from the colon to a systemic infection.

Due to the rare cases of protothecosis in domestic animals, there is a lack of sufficient statistical data on its prevalence, age, and gender. In dogs, Collie, Boxer, and neutered female dogs seem to have more case reports, occurring in a wide range of ages, ranging from 1.5–10 years of age. The pathogen of this disease exists widely in the environment, but there are few cases of infection, which shows that animals with normal immune function are not prone to infection, and there are many other pre-factors that cause immunosuppression in sick animals. Another study showed that prototheca may inhibit the effect of neutrophils after infecting animals, so that there may be no obvious acute inflammatory reaction in tissue sections. After being infected with *P. zopfii*, dogs often have persistent diarrhea at the initial stage, which may last for half a year or even more than one year. In the later stage, hemorrhagic diarrhea, glaucoma, chorioretinitis, and neurological symptoms may begin to appear. The macroscopic lesions are mainly multiple opalescent to gray-white miliary-like small nodules of 1-2 mm scattered in the infected organs, among which the kidneys may have higher pathogenic concentrations, and large lesions are more common. When the disease causes kidney or central nervous system infection, the pathogen may be found in the examination of urine and cerebrospinal fluid. Histologically, this pathogen can often cause focal granulomatous inflammation, accompanied by extensive tissue necrosis, hemorrhage, and inflammatory reaction of mixed lymphocytes, plasma cells and neutrophils. The pathogens are extremely hypochromic under H&E staining, and need to rely on periodic acid-Schiff (PAS), Gomori's methenamine silver (GMS) and other staining for identification. Although the literature has pointed out that Giemsa staining is a method that can be used to identify the pathogen of prototheca, in this case, the staining of the pathogen was not more obvious than that of H&E staining after using Giemsa staining.

In terms of treatment, there is no successful case of treatment for canine disseminated protothecosis, and only cutaneous protothecosis has the possibility of treatment. Excision of the affected skin and combined use of amphotericin B, tetracycline, ketoconazole, fluconazole, clotrimazole and other drugs are possible treatments, but the results are inconsistent in the literature. In cases of disseminated infection, intravenous administration of amphotericin B may prolong the dog's life, but it cannot be cured.

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## **Case Number: 571**

**Slide Number:** 21-645

**Slide View:** [http://www.ivp.nchu.edu.tw/ivp\\_slide\\_view.php?id=2027](http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2027)

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### CASE HISTORY:

Signalment: A 6-month-old, male castrated, mix cat

The young cat found right mandibular swollen, and the x-ray image shows loculated lesion locate between right mandibular canine teeth and premolar teeth, and dislocate incisor teeth. The mass was surgically removed, and the gross lesion was a soft transparent mass with multiple cavities, some sticky and clear fluid was discovered within cavities.

### Gross Findings:

The submitted specimens were multiple small fragments of gingival nodules, and canine teeth was also included.

### CASE RESULT:

#### Histopathological Findings:

Most specimens received are fragile gingival nodules, part of samples remain normal orientation, and indicate the mass is locate in submucosa and adjacent to teeth. The tumor is unencapsulation with infiltrative growth pattern and ill-defined border, the surgical margin is inapparent. Tumor mass form central cystic structure, and peripheral is composed of large amount of odontogenic epithelium, dense arranged dental papilla mesenchymal cell. Odontogenic epithelium cells are arranged in individual follicle, anastomosing trabeculae, plexiform ribbon or ink drop pattern, and usually surrounded by spindle or stellate dental papilla cells. Odontogenic cells is composed of peripheral basilar epithelium and internal polygonal cells with prominent intercellular bridge, stellate reticulum is present occasionally. Besides, the odontogenic cells also form bell or cap-shape and hugging stellate mesenchymal cells. Occasionally, small amount of thin strip of dentin-like matrix is discovered along odontogenic epithelium.

#### Pathological Diagnosis:

Feline inductive odontogenic tumor (FIOT), Rt. mandibular canine teeth mass.

貓誘導性齒源性腫瘤，右側下顎犬齒團塊物。

#### Differential diagnosis:

## Ameloblastic fibroma

### Discussion:

In order to approach odontogenic tumor, understanding the process of odontogenesis is important. Development of the tooth involves the interaction between two principal tissue types, odontogenic epithelium and the subjacent neural crest-derived ectomesenchyme of the jaws. The primitive tooth germ can be simplified into three coherent parts: (i) the odontogenic epithelium (dental lamina-derived enamel organ); (ii) the surrounding ectomesenchyme-derived dental follicle (or dental sac); and (iii) the partially entrapped dental papilla, which is also derived from ectomesenchyme. The enamel organ is responsible for enamel formation, the dental follicle forms the structures associated with the periodontal ligament (PDL), and the dental papilla forms the tooth pulp and dentin.

Tooth embryogenesis moves through predictable and overlapping stages of development referred to as the bud, cap, bell, and crown stages. Each stage refers to the histologic shape of the epithelial tooth germ. The bud stage initiates as an invagination of the overlying oral epithelium into the subjacent connective tissue. The cap stage is characterized by differentiation of the ectomesenchyme (future dental papilla) within a concavity of the dental lamina. In the bell stage, the enamel organ forms a well-defined bell-like structure surrounding the proliferative ectomesenchyme of the dental papilla. Ectomesenchyme-derived odontoblasts produce a strip of dentin along the basement membrane in the late bell stage. During the crown stage, enamel is produced by the ameloblasts and deposited on the surface of the dentin.

Odontogenic tumors generally have 4 histologic features, odontogenic epithelium, dental follicle, dental papilla and dental matrix. The tumors may have multiple components or only present single feature. There are only two members – ameloblastic fibroma (AF) and feline inductive odontogenic tumor classified as mix tumor composed of odontogenic epithelium, ectomesenchyme of the dental papilla and follicle. In mixed odontogenic tumors, the neoplastic odontogenic epithelium *induces* the proliferation of the non-neoplastic ectomesenchymal component.

Feline inductive odontogenic tumor (FIOT) is a rare, mix tumor comprising odontogenic epithelium, ectomesenchyme dental papillae, and dental follicle, it is special kind of ameloblastic fibroma that occurs in young domestic cats generally less than 1 year of age. FIOT occurs in either the maxilla or mandible, although the rostral maxilla appears to be preferentially affected. To a certain degree, the tumor recapitulates an early stage of odontogenesis (the cap stage), and then fails to progress beyond it. The tumors were previous called ameloblastic fibroma or inductive fibroameloblastoma. Infiltrative inductive ameloblastic fibroma was proposed in the textbook published in 2017 for emphasized the infiltrative growth pattern. However, authors published the textbook in 2020 do not necessarily agree the lesion is invariably an infiltrative lesion, and prefer FIOT. Very little is known regarding the biologic behavior of FIOT. Few reports that have made it into the literature suggest that its biological behavior is similar to the AF and may be treated similarly

(surgical resection with 1 cm gross surgical margins). This tumor is not expected to metastasize and has a good prognosis if clean margins can be achieved.

Ameloblastic fibroma also identified in other species, most commonly reported in cattle, and rare in other animals but have been diagnosed in cats, horses and dogs. AF is rarely identified in humans, and occurs as a central or peripheral lesion most often in adolescents (mean age of occurrence is 14.8 years, range from 7 weeks to 62 years). AF is a benign, slow-growing, expansile, and non-infiltrative tumor, mainly occurs in posterior mandible. Radiographically, the tumor presents as a well demarcated radiolucency, often in connection with a malpositioned tooth. Typical treatment consists of enucleation and curettage. Rarely, AF may progress to malignancy (ameloblastic fibrosarcoma).

In conclusion, FIOT is a rare odontogenic tumor that occur in young cats, and predominantly in the anterior maxilla. If the examined lesion has evidence of proliferative (neoplastic) epithelium and is derived from an adult or aged cat, the squamous cell carcinoma should be given some serious consideration due to high incidence.

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## Case Number: 572

Slide Number: CP22-02001A

Slide View: [http://www.ivp.nchu.edu.tw/ivp\\_slide\\_view.php?id=2003](http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2003)

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### CASE HISTORY

**Signalment:** 21-day-old, mule ducks

A duck farm in the central region of Taiwan raised about 6,000 Mule ducks. At the age of 21 days when they left the nursery, these ducks showed depression, vomiting, and bloody diarrhea. The morbidity rate was about 40% and the cumulative mortality rate was about 33.5% (2,010/6,000). The farm veterinarian recommended the administrations of a duck viral hepatitis vaccine and LS<sup>TM</sup> 220 premix (contains 110 g of Lincomycin HCl and 110 g of Spectinomycin Sulfate per kg) during outbreak. Four sick ducks were submitted to the Animal Disease Diagnostic Center, NCHU, for pathological diagnosis and pathogen examination.

### **Gross Findings:**

The external examination on sick ducks showed cloacal bloody dysentery, and some ducks displayed open-mouth breathing symptom. Grossly, ducks had enlarged liver and spleen with multiple white foci, cloudy and thickened pericardial sacs, liver capsule and air sacs. In addition, multiple dark red foci were also noted in the mucosal surface of the small intestine.

### CASE RESULT

#### **Histopathologic Findings:**

##### Gastrointestinal tract

The villi in the small intestine and cecum are extensively necrotic and exfoliated, and there is hemorrhage and inflammatory cell infiltration, mainly composed of lymphocytes and plasma cells. Numerous coccidia with different stages are observed in the epithelium of villi or crypts of the entire small intestine segment. The trophozoites are round with different sizes, about 2-3×2-5 μm, and the overall staining is basophilic. The schizonts are round or irregular in shape and vary in size, about 6-10×15-20 μm, and contain numerous basophilic crescent-shaped merozoites. The microgametocytes are round or oval in shape, about 8 x 10 μm in size, and small basophilic granules can be seen in the cytoplasm. The macrogametocytes are round, about 4-6 × 7-8 μm in size, and contain many

eosinophilic granules in the cytoplasm. Small eosinophilic granules are observed arranged around the cell membrane, with a large eosinophilic granule in the center. The zygotes are round or oval in shape, about  $5-6 \times 7-8 \mu\text{m}$  in size, with variable cytoplasmic structures or a thickened membrane similar to the oocyst.

### **Liver**

Focal degeneration and necrosis of hepatocytes are found, and eosinophilic exudate can be seen in the hepatic sinus; inflammatory cells mainly infiltrated by lymphocytes and plasma cells near the liver triad. Multiple coccidial schizonts can be also seen near the blood vessels, which are round or irregular in shape, about  $8-12 \times 9-14 \mu\text{m}$ , and contain a large number of basophilic crescent-shaped merozoites. Infiltration of some eosinophils and phagocytosis of schizonts by macrophage are also observed.

### **Spleen**

The lymphocytes in the white pulp are decreased, and the reticuloendothelial tissue is exposed, accompanied by a little accumulation of fibrinous exudate next to the arterioles. Multiple coccidia schizonts can also be found near the blood vessels, which are round or irregular in size, about  $9-16 \times 12-18 \mu\text{m}$ , and contain a large number of basophilic crescent-shaped merozoites; Lymphocytes in the white pulp near the foci are necrotic, and some macrophages are also observed to phagocytose the schizonts.

### **Air sac**

Locally extensive granulomatous necrosis is found on the surface of air sac, and is showing accumulation of fibrinous exudate, and bacterial colonies, which surrounded by macrophages in the periphery of the necrotic area, and infiltrated by inflammatory cells dementedly by heterophils and lymphocytes

### **Lung**

The interstitium is thickened, and there is a small amount of fibrinous exudate in the parabrochi space. Infiltration of inflammatory cells such as lymphocytes and heterophils found in bronchial cavity and the interstitium, and multifocal to coalescing necro-granuloma foci surrounded by macrophages can also be seen in the interstitium. Cryptosporidium parasites, which are basophilic, round or oval, and vary in size, can also be seen on the surface edge of bronchial ciliated epithelium.

### **Heart**

There are extensive granulomatous necrosis foci, fibrinous exudate, and bacterial clumps can be seen in the epicardium.

### **Bursa of Fabricius**

Cortical and medullary lymphocytes are lost in some lymphoid follicles, and the proportion of epithelioid reticuloendothelial tissue increases. Pseudostratified columnar epithelium proliferates in some areas, and Cryptosporidium parasites, which are basophilic, round or oval, and vary in size, can also be seen on the surface edge of epithelial cells.

### **Morphological diagnosis:**

- Enteritis, necro-hemorrhagic, diffuse, severe, subacute, with myriad intralesional coccidia, small intestine
- Hepatitis, lymphoplasmacytic, locally extensive, moderate, subacute to chronic, with intralesional coccidial schizonts, liver
- Splenitis, multifocal, mild to moderate, subacute, with multiple coccidial schizonts, spleen
- Airsacculitis, necro-granulomatous, multifocal to coalescing, severe, chronic-active, with intralesional bacterial colonies, air sacs
- Broncho-interstitial pneumonia, diffuse, mild, chronic, with intraepithelial *Cryptosporidium* sp., lung
- Epicarditis, necro-granulomatous, locally extensive, severe, chronic-active, with intralesional bacterial colonies, heart
- Bursitis, proliferative, diffuse, severe, with numerous intraepithelial apicomplexan schizonts consistent with *Cryptosporidium* sp. and severe lymphoid depletion, bursa of Fabricius

### **Laboratory examination**

#### 1. Microbiological examination

Sampling from air sacs and livers of sick ducks, using Blood agar plate (TSA contain 5% sheep blood) and MacConkey agar at  $36^{\circ}\text{C} \pm 0.5^{\circ}\text{C}$  for micro-aerobic culture (adding 5%  $\text{CO}_2$ ) for 24 hours and observes for three days. In the results of culture on Blood agar plate, gray translucent, round colonies without hemolysis are found.

After purification of the colonies grown on the blood agar plate, the bacteria were further identified by 16S rRNA sequencing method. The identification result of the bacteria isolated from the air sac specimen is *Riemerella anatipestifer*.

#### 2. Molecular biological examination

The liver, spleen, and kidney of the ducks were collected and ground into an emulsion to extract their nucleic acid. Specific primer pairs for Parvovirus (DPV) and Duck hepatitis A virus (DHAV) are used. PCR and RT-PCR methods amplify the nucleic acid of the target virus, and then use gel electrophoresis to check for a band of the expected size. Results in all tissue samples revealed that DPV and DHAV are negative reaction.

#### 3. Special staining

Periodic Acid-Schiff stain: *Cryptosporidium* spp. were stained blue signal in bronchi and bursa of Fabricius.

### **Differential Diagnosis:**

1. Coccidiosis
2. Duck virus hepatitis
3. Duck virus enteritis
4. Parvovirus infections of waterfowl
5. Fowl cholera (Avian pasteurellosis)

6. Infectious serositis (*Riemerella anatipestifer* infection)
7. Colibacillosis

**Final diagnosis:**

Systemic coccidiosis combined with infectious serositis in mule ducks

**Discussion:**

The four 21-day-old ducks submitted for inspection were mainly found to have bloody diarrhea, open-mouth breathing symptoms, epicarditis, airsacculitis and systemic coccidial infection, resulting in a large number of deaths. The differential diagnosis of diseases that cause high mortality in ducks is as follows. Viral diseases include duck viral hepatitis, duck viral enteritis (duck plague) and parvovirus of waterfowl. Bacterial diseases include fowl cholera, infectious serositis (new duck disease) and severe colibacillosis. Parasitic diseases such as severe coccidiosis. Because there are no obvious hemorrhagic lesions in the liver, and a large number of deaths shall occur before the age of two weeks, so, viral hepatitis can be excluded. The hemorrhagic lesions of the myocardium, liver and other tissues are not obvious, and duck plague is more pathogenic to adult ducks than ducklings, so, it can be excluded, as well. However, there is no serious necrosis of myocardium and hepatocytes, and with PCR results, the waterfowl parvovirus is not considered. For bacterial diseases, the age of onset and the absence of severe hemorrhage in organs and tissues can be rule out fowl cholera that occurs in adult ducks. Colibacillosis is susceptible to all-aged poultry, with symptoms such as diarrhea, respiratory symptoms, and septicemia, airsacculitis, pericarditis, perihepatitis and other fibrinous serositis are the main types, which are similar to *Riemerella anatipestifer* infection, so it can be diagnosed by microbiological examination. Based on the isolates and the main lesions, the final diagnosis is systemic coccidiosis complicated with infectious serositis.

So far, 23 species of duck coccidia have been identified in 4 genera, including 14 species of *Eimeria* spp., 4 species of *Wenyonella* spp., 4 species of *Tyzzeria* spp. and 1 species of *Isospora* sp. Overall, due to extensive breeding and waterfowl trade, it is estimated that there are at least 20 species of duck coccidia of various genera in China, among which *Tyzzeria pernicioso* is the most pathogenic, especially in ducklings under 7 weeks of age, which can cause serious diseases. It can cause severe bloody diarrhea and exudate from the small intestine in clinic observations, and the mortality rate can be as high as 30%. In addition, recovered ducks typically grow slowly, resulting in significant economic losses for the duck industry.

Coccidia of duck can be divided into intestinal type and renal type according to the different endogenous developmental stages. Intestinal coccidia parasitizes in the intestine and complete asexual and sexual reproduction; renal coccidia may appear in the intestinal or renal tubular epithelium, and the related infection mechanism and pathogenicity remain to be studied in the future. In this case, no coccidia are found in the kidneys, and the main lesion is hemorrhagic enteritis, so it should be determined to belong to intestinal coccidiosis. After ducks ingest sporulated oocysts, the oocyst wall ruptures in the gizzard, releasing sporozoites that parasitize the intestinal epithelium,

crypt epithelium or lamina propria (the highly pathogenic coccidia can even penetrate deep into the muscular layer), and then develop into schizonts and rupture to release merozoites. Different species of coccidia have different generations of schizonts. After completing the asexual reproduction stage, they develop into micro- and macro- gametocytes in the cell. The microgametes will enter the macrogametocytes, and form zygotes, develop into oocysts, and are excreted in feces to complete the sexual reproduction stage. The oocysts will contaminate the duck farm environment, drinking water or feed, and become infectious after sporulation under appropriate temperature and humidity.

Although it is inferred that the coccidiosis in this case belongs to intestinal coccidiosis, coccidial schizonts can be seen in the liver and spleen, so it is a systemic case of coccidiosis; however, the development of this type of extraintestinal coccidiosis may be more common than reported in studies. A study of experimental infection of ducks with *Tyzzeria pernicioso* showed that the coccidia not only cause extensive damage to the intestinal mucosa, make the villi broken, and the coccidia at different stages of sexual and asexual reproduction coexisted in the villus epithelium and lamina propria, the persistent infection can also make the coccidia migrate to the liver through the portal system. In addition, Intraepithelial lymphocytes (IEL), which are distributed in the avian intestine, often play the role of carrying sporozoites to the crypt or extra-intestine for parasitization. However, it remains to be investigated whether IELs only play a carrier role or selectively carry sporozoites to specific parasitic sites. In Taiwan, there has also been an outbreak of duck systemic coccidiosis. A case report of systemic coccidiosis in Muscovy ducks happened in 2013 showed that coccidiosis at different stages spread throughout the duodenum, jejunum, ileum, cecum, liver, spleen, thymus and Bursa of Fabricius, and caused up to 85% mortality of the disease. It can be seen from the above that severe persistent infection of coccidiosis may develop into systemic coccidiosis, which may cause a large number of deaths of ducks.

Clinical symptoms of coccidiosis include depression, bloody diarrhea, high mortality, and may cause growth retardation. Gross lesions show flushing and hemorrhagic spots on the intestinal mucosal surface, intraluminal bloody or caseous contents. In histopathological examination, a large number of coccidia at different life stages can be seen. Diagnosis is based on fecal examination or making a smear of the intestinal mucosa or contents for observation of oocysts. For the identification of duck coccidia, it is mainly classified by the morphology of the sporulated oocysts and the location of infection. In this case, since no coccidial oocysts were found on the intestinal smear scraped at the time of autopsy, the specimens were not retained for sporulation test, so it was a pity that the species of coccidia could not be identified. However, for the duck coccidial species in Taiwan, there was a report investigating the infection situation in Taiwan duck farms from 1988 to 1991. The most common ones were *Tyzzeria pernicioso* and *Wenyonella gagari*, which caused hemorrhagic enteritis in both young and adult ducks. In this report, the infection experiments on *T. pernicioso* and *W. gagari* show that the main parasitic sites of *T. pernicioso* in ducks are the duodenum and jejunum, while *W. gagari* is the ileum and cecum, and only *T. pernicioso* infection can observed the coccidia in the liver. In conclusion, since coccidia were not observed in the cecum in this case, and there were coccidia schizonts in the liver and spleen, it can be inferred that the infection of *T. pernicioso* is most likely.

However, there is still the possibility of mixed infection with other species of duck coccidiosis in this case; and by referring to this type of epidemiological report, it actually helps veterinarians prevent and control the disease.

The control of duck coccidiosis mainly relies on environmental sanitation and oral drugs. Sulfa drugs work well, including sulfadimethoxine, sulfamethoxazole, sulfamethoxazole-trimethoprim, etc. According to a case report on the efficacy of duck anti-coccidial drugs, ducklings are most likely to develop disease when they are transferred from the brooding house to the ground. Therefore, preventive treatment with sulfonamides can be considered at this time. Some ionophores have also been confirmed to have good anti-coccidial effects, including maduramycin and lasalocid.

Infectious serositis, also known as new duck disease or duck septicemia, is caused by *Riemerella anatipestifer* (RA) infection and is an important bacterial infectious disease of waterfowl in Taiwan. RA mainly infects ducks and geese, and there are also cases of outbreaks in turkeys. The colony has also been isolated from other poultry or wild birds such as chickens and quails. The disease usually occurs in young ducks at 2-4 weeks ages, with an incubation period of about 2-5 days. The clinical symptoms include depression, eye and nose discharge, open-mouth breathing, greenish diarrhea, head and neck tremors, torticollis, and some other neurological symptoms. Ducks under 5 weeks of age usually die within 1-2 days of onset of symptoms, older ones may survive longer. Mortality ranges from 1 to 7 % and is often closely related to feeding management and environmental stress (movement, sudden changes in temperature or humidity). The most typical gross lesions in sick ducks are fibrinous inflammation on the surface of the visceral serosa, which is cloudy and thickened, with the pericardial sac, liver capsule and air sac.

In this case, *Cryptosporidium* spp. was accidentally observed in the bronchi and bursa of Fabricius. The most common species of avian *Cryptosporidium* spp. are *Cryptosporidium baileyi* and *Cryptosporidium meleagridis*, of which *C. baileyi* can infect various domestic or wild birds, including chickens, duck, turkey, etc. *Cryptosporidium* spp. may spread through various poultry, wild birds, contaminated water sources, feces and the environment. When the amount of infection is high, it may cause acute or subacute gastrointestinal symptoms, and if the respiratory tract is involved, such as nasal sinuses or trachea, more obvious respiratory symptoms may occur. In this case, the lesions of bursa are consistent with a case report describing histological changes in *Cryptosporidium* infection of ducks in Egypt, showing epithelial hyperplasia and lymphoid depletion. The cause of infection may be related to environmental stress, concurrent disease or immune deficiency; and the destruction of respiratory mucosa and lymphocytes located in bursa of Fabricius caused by *Cryptosporidium* infection may also affect the host's own immunity, making it easy to be secondary infected by other pathogens.

In conclusion, RA and coccidia are considered as the main pathogens in this case. The cause of outbreak may be the low temperature and rainfall for several days at that time, which caused the ducks to be stressed, weak and getting an opportunistic infection. From the point of view of lesions alone, the infection and pathogenicity of coccidia seem to be more important, and after adding TRIMIXIN® 480 to the feed, the number of deaths decreased, showing that coccidia may be the main cause in this

case. However, according to a study report in Taiwan in 1996 on the extra-intestinal development of *Tyzzeria pernicioso*, it was pointed out that if using Dexamethasone or combined *Pasteurella multocida* infection prior to the infection experiment of *T. pernicioso*. *T. pernicioso* would cause systematic infection in ducks. While in the absence of drugs or bacterial infection, the disease is confined to the small intestine. It can be seen that if bacteria or some factors seriously affect the host's immunity or physiological metabolism, it is possible to create an adaptive environment from the original uncomfortable environment, resulting in ectopic parasitism of coccidia.

Finally, for the control plan of this farm, in addition to sulfonamides for coccidia, antibiotics should be administered for RA infection. The antibiotics used in this farm before and after the disease outbreak are both resistant to RA. Although the numbers of death have decreased and the disease has controlled, this may only because that the remaining ducks have made through the disease and survived, the RA in this duck farm is still unresolved and the possibility of another outbreak in the future cannot be ruled out. Additionally, when the duck farm is empty, we should implement the all-in-all-out strategy, conduct thorough and regular cleaning and disinfection operations, establish complete biosecurity measures, administer RA vaccine, and reduce the duck stress factor as much as possible to prevent the disease outbreak in the future.

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## **Case Number: 573**

**Slide Number:** 190320H\_T2, 190320E\_T1

**Slide View:**

[http://www.ivp.nchu.edu.tw/ivp\\_slide\\_view.php?id=2000](http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=2000)(190320H\_T2)

[http://www.ivp.nchu.edu.tw/ivp\\_slide\\_view.php?id=1999](http://www.ivp.nchu.edu.tw/ivp_slide_view.php?id=1999)(190320E\_T1)

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### **CASE HISTORY:**

An 84-year-old man.

### **Clinical history:**

An 84-year-old man complained with an intermittent colicky abdominal pain, dyspnea, orthopnea, fatigue, pallor looking, and progressive generalized edema for one month.

On admission, vital signs were BT: 37.5° C, PR : 98/min, RR : 19/min, BP: 86/64mmHg. He had BPH post-operation and denied of allergy history. He had BPH post-operation and denied of allergy history. He was negative for hepatitis B and human immunodeficiency virus (HIV) tests. Esophagogastroduodenoscopy revealed reflux esophagitis of Los Angeles classification grade A and gastric polyp over middle body was found. Chest x-ray showed bilateral pleural effusions. Chest CT scan exhibited atelectasis of LUL and LLL with bilateral pleural effusions. Some small lymph nodes with less than 1 cm at mediastinum and no bony destruction of thoracic cage was detected. CT scan of abdomen and pelvis demonstrated two segments of small bowel intussusception, and one presented abnormal enhancement of the leading point with regional small lymph nodes and small bowel tumor was considered. No peritoneal effusion or ascites was found. Suspected jejunal tumor related to JJ intussusception. Enlargement of left para-aortic and peri-portal lymph nodes were noted. Clinical and imaging examinations showed highly suspected of JJ intussusception and intestinal obstruction. He underwent the diagnostic laparoscopy assisted laparotomy and two areas of JJ intussusception with manual reduction of intussusception. Subsequent segmental resection of the jejunum with lymph nodes dissection were also performed.

### **Laboratory results (Clinical Pathology) and Imaging study:**

Laboratory data included Hgb: 4.4 g/dl, Hct: 15.1%, MCV: 71.6 fl, MCH: 20.9 pg, MCHC: 29.1 g/dl, neutrophils: 78.9%, lymphocytes: 87.7%, monocyte: 12.2%, NT-proBNP (PBNP): 3260 pg/mL, Na<sup>+</sup>: 123mmol/L, albumin: 2.39 g/dL, and urine protein was trace. Tumor marker (CEA, PSA, CA199 and AFP) levels were within normal limits. Microcytic anemia, hypoalbuminemia, and hyponatremia were firstly considered. Subsequently, he underwent total colectomy and the final pathological diagnosis was performed.

### **Gross Findings:**

Histopathologic examination, the resected specimen submitted was a segmental jejunum with two separated protruding ulcerative polypoid masses between 10 cm in distances were identified, measured up to 3 by 2 by 2 cm (T1) and 2.5 by 1.5 by 1 cm (T2).

### **CASE RESULT:**

#### **Histopathologic Findings:**

Microscopically, both T1 and T2 intestinal polypoid masses revealed diffuse loosely cohesive sheets and nodules, marked diffuse monotonous lymphoid elements with mixtures medium to large cells displayed vesicular nuclei with prominent nucleoli. Nuclear pleomorphic or large with obscure cytoplasm seen. Sections showed homogeneous infiltrative lymphoma cells separating fibers through the intestinal wall and periserosal adipose tissue. The lymphoma cells reached up to the serosa and was accompanied by perforation of peritonitis. Analysis of dissected lymph nodes indicated 12 out of 16 mesenteric regional lymph nodes were involved by the lymphoma and displayed similar morphology suggesting high grade lymphoid malignancy.

#### **Differential Diagnoses:**

- Inflammatory bowel disease (IBD):
  - Crohn disease / Ulcerative enteritis (UC)
- Lymphoid polyps
- Undifferentiated carcinoma
- Malignant lymphoid neoplasm
- Malignant lymphoma:
  - B-cell or T-cell type

#### **Immunohistochemistry:**

Immunohistochemical (IHC) staining, these lymphoma cells (T1 and T2) demonstrated diffusely positive immunoreactivity for CD20 (strongly diffuse membranous staining), increase expression for proliferative Ki-67-labeling index with approximately 85-90% of involved lymphoma cells.

Lymphoma cells also presented positive for Bcl-2, MUM-1/ IRF (multiple myeloma oncogene 1, post-germinal center or activated B-like), and focal positive for Bcl-6 (B-cell lymphoma 6, germinal center marker). In contrast, tumor cells showed negative for CD3 (T-cell marker) with positive in background small lymphocytes, and negative for CD-10 (germinal center marker), pan-CK, NSE, CD30, CD4 and cyclin-D1. The feature of synchronous high-grade DLBCLs of the jejunum was diagnosed. Subsequently pleural effusion cytopathology illustrated detection of lymphoma cells. Bronchoscopy brush cytology and sputum cytology showed negative for malignant cells. Trephine needle core biopsy for bone marrow examination showed negative for lymphoma involvement. The final pathological diagnosis prompted a diagnosis of simultaneous DLBCLs of the jejunum with mesenteric lymph nodal and pleural metastasis associated intestinal obstruction with perforation was concluded.

### **Anatomic Diagnosis:**

- Multiple primary malignant (MPM) (Synchronous / metachronous? or metastatic) non-Hodgkin lymphomas (DLBCLs) of the jejunum with JJ intussusception with mesenteric lymph nodal and pleural involvement.
  - Simultaneous / Double DLBCLs of the jejunum with JJ intussusception with mesenteric lymph nodal and pleural metastasis associated intestinal obstruction with perforation.

### **Follow-up and workup:**

After emergency surgery, the patient recovered uneventfully. He was referred to the medical oncology team for further appropriate postoperative management. Subsequently, he received standard chemotherapeutic regimens (called Rituximab-CHOP) scheduled was administrated. Unfortunately, the patient sustained acute critical conditions presented hemodynamic worsen gradually, congestive heart failure, complicated hospital bacterial infection, massive pleural effusion with acute respiratory failure and hypovolemic shock related acute kidney failure developed. The patient expired six months after surgery.

### **Discussion:**

Multiple primary malignant tumors are defined as the detection of two or more malignancies in an individual person [1,2]. In particular, simultaneous primary malignancy is extremely rare [2-5]. The GI tract is the most common site of extra-nodal lymphoma involvement. Primary GIL is a heterogeneous entity and constitutes approximately 10-15% of all NHL and estimates 30%-40% of all extra-nodal lymphomas [2,6,7]. Primary GIL accounts for 1% to 10% of all GI malignancies and up to 90% of which are B-cell non-Hodgkin lymphoma (NHL) [2,4,8,9]. In majority of studies investigate that stomach is the commonly affected site followed by small intestine. Lymphoma of the small intestine is the most common part of the ileum, followed by the jejunum and duodenum [10]. The most common identification site is the ileocolon region [1,2,5,8,11-14]. Unusual synchronous cases of lymphoma and non-lymphoid malignancies and another cancers are well described [2,4,6,20].

The coexistence of double primary malignancies especially malignant lymphomas of the jejunum is extremely rare [4,8]. Multiple lymphomatous polyposis (MLP) is a primary GIL with a distinctive entity and rare solid lymphoma intestinal segment involvement. The Dawson criteria are identified the classic tests for diagnosis of GIL include followings as absence of palpable lymphadenopathy in clinical examination; absence of mediastinal lymphadenopathy in a chest x-ray; normal range of total WBC and differential count; disease confined to the intestine and adjacent nodes involvement; no evidence of liver or spleen involvement [11].

Intussusception in adults is usually related to the underlying pathology. In previous well-documented adult intestinal intussusception caused by benign (63%), idiopathic (23%) and malignant (14%) lesions [4,22] The most common site of small bowel lymphoma is the ileum, ileocecal region followed by the jejunum and duodenum [2,4,14,19,23]. The GI tract NHL/DLBCL is unusual pathological lead point that can cause to intussusception in older children and in adults [1,8,18,24]. Although intussusception is very common in children, a leading cause of childhood intestinal obstruction [1.3], but it accounts for 5% of all intussusception, intestinal obstruction in adults accounting for 1-5% [3]. Clinically, adult intussusception is rarely considered in the differential diagnosis of patients with abdominal discomfort. However, adult intussusception preoperative diagnosis is difficult because the typical symptoms. The incidence of average age was 55 years (range 21-79 years old), male to female ratio was 2.6: 1 [25]. A study reviewed 36 published cases of intussusception caused by lymphoma from 2000 to 2011 [1.5]. These ages of the patients ranged from 16 to 86 years old. Among 36 patients in the 16 to 24 age group, only 7 patients developed secondary NHL with intussusception [5]. The clinical features of small intestinal lymphoma are non-specific. Common clinical manifestations of adult intussusception include symptoms such as colicky abdominal cramps, nausea, vomiting, weight loss, and rarely have acute obstruction symptoms, ulceration, intussusception, intestinal perforation or diarrhea [1,4].

The simultaneous occurrence of DLBCL is even rarer in the jejunum. Synchronous primary DLBCL of the jejunum is extremely uncommon and only three cases have been reported because of JJ intussusception caused by NHL in adult [1,8,16,26]. This additional case is synchronous DLBCs and the clinical manifestations presented as JJ intussusception with intestinal perforation with multiple lymph nodes and pleural metastasis. In literatures review that have been described a first rare case of DLBCL presenting with 2 areas of JJ intussusception only once previously [8], and a similar case with one area of JJ intussusception caused by DLBCL has been reported.1,8,16,19 The previous rare case report has been described multiple recurrent JJ and ileo-ileum intussusceptions due to multiple lymphomatous polyposis associated with high-grade DLBCL of small intestinal in a child [1]. Obstruction and perforation is uncommon and life-threatening complications of NHL, which can occur at the time of diagnosis or during treatment. Previously, reported one case of concurrent malignant B-cell lymphoma of the jejunum and multiple synchronous colon cancers [7], and one case with synchronous perforation of primary non-Hodgkin's T-cell lymphoma (NHTL) of the jejunum and descending colon presented with perforation and peritonitis.6

Clinically, the pathophysiology of primary pleural effusion or secondary malignant (metastatic) pleural effusion must to do differential diagnosis. Primary GI-DLBCL initially presented as unexplained pleural effusion is extremely rare. Recently, this an unusual case of unilateral pleural effusion associated with primary rectal DLBCL reported [2,9]. It is indeed extremely rare that synchronous DLBCLs with multiple lymph node and bilateral pleural metastasis in the same tissue and clinically characterized by JJ intussusception is indeed extremely rare. This present case concerns considering an extremely rare manifestation of simultaneous primary DLBCLs of the jejunum with disseminating multiple lymph nodal and pleural involvement presenting as intestinal obstruction with perforation associating with two areas of JJ intussusception in an elderly male in clinically. To be best our knowledge and review, there is still no same case report in the published English literature.

The non-specific clinical manifestations make preoperative diagnosis difficult. The staging of primary GI-DLBCL is completed by considering imaging examination and bone marrow aspiration and biopsy evaluation. To establish an accurate diagnosis and staging of this heterogeneous group of lymphomas, applications of different procedures have been used, including endoscopic ultrasound (EUS), endoscopic biopsies, computed tomography (CT), magnetic resonance imaging (MRI), diagnostic laparoscopy, scintigraphy, angiography, positron emission tomography (FDG-PET), and/or molecular cancer markers [1,2,4,11]. Typical imaging features of intussusception include cross-sectional target sign or donut sign, longitudinal cross-sectional false kidney sign, sandwich sign, or pitchfork sign [1,2].

For the pathological diagnosis of surgical resection specimens, in terms of pathological diagnosis, histology and morphology, high-grade DLBCL must be differentiated from epithelial carcinomas, lymphoid or hematological neoplasms and/or leukemia. Currently widely used IHC staining could to do differential diagnosis. Histopathologic and IHC examinations, the specificity and sensitivity of CD19, CD20, CD79a and PAX5 markers to detect B-cell lineage lymphoma/leukemia-derived are analyzed on the tissue microarray by IHC [2,4,18,20]. In present case, IHC detection demonstrated CD20 marker shows strong and diffuse membranous staining, transcriptional factor (MUM1/IRF4) expressed in final step of intra-germinal center B cell differentiation and in post-germinal center (late centrocytes) B cells. CD10, BCL6, and MUM1 expression in DLBCL [1,4,6,27].

Primary GIL should always be retained in the differential diagnosis of intussusception cases, especially in older age and children groups. The therapeutic strategy for gastrointestinal lymphoma depends on the patient's age, clinical condition, histological subtype, extent and burden of the disease, and comorbidities. The effective treatment strategy generally includes surgery, radiotherapy and further chemotherapy (Rituximab with cyclophosphamide, doxorubicin, vincristine, and prednisolone R-CHOP) in such our case. Surgical resection combined with chemotherapy that has been shown to improve overall survival independent intestine large B-cell lymphoma [2,26-29]. The outcomes are directly related to the stage of at the diagnosis, with long term survival rate reported is close to 75 % overall [12]. The evaluation of prognosis of synchronous primary lymphoma in the intestine

correlates better with the depth of invasion, tumor size, and lymphadenopathy. It was previously reported that the prognosis of GIL is very poor. This present case was late stage of disease with complicated critical conditions with microcytic anemia, hypoalbuminemia, and hyponatremia, pleural effusion, and poor survival could be predicted. Prognostic factors include the evaluation of stage at diagnosis, the presence of perforations, tumor resectability, histological subtype and multimodal treatment [9,12,21,29]. Lymphoma perforations with involving pleural and nodes generally have higher tumor stage and poorer prognosis in such our case. DLBCL of the small intestine has significantly improved stage I and stage II survival. Previous study data showed that early stage (stage I and II) patients have a longer cumulative survival compared to stage III or IV patients [12]. Early diagnosis and further management are important to improve the prognosis of intestinal intussusception in patients with NHL-DLBCL.

## **Conclusion**

Intussusception in the adult population is often associated with underlying pathology. Clinical characteristics and imaging method evaluations are needed for diagnosis. Primary small bowel DLBCL can present a variety of clinical manifestation. Thus, learning aim based on this extremely rare case report, we can learn that its clinical manifestations, morphological characteristics, immunophenotypes and molecular biological characteristics are very different and important, which is challenging to preoperative diagnosis. The diagnosis is usually confirmed by histopathology and IHC examination after obtained surgical specimen. Surgery, chemotherapy, radiotherapy and or immunotherapy is a different application of its management, may be in a different combination.

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# 中華民國比較病理學會章程

## 第一章 總則

- 第一條 本會定名為中華民國比較病理學會，英文名稱為 Chinese Society of Comparative Pathology (CSCP) (以下簡稱本會)。
- 第二條 本會依內政部人民團體法設立，為非營利目的之社會團體，以結合人類醫學與動物醫學資源，提倡比較病理學之研究與發展，交換研究教學心得，聯絡會員友誼及促進國際間比較醫學之交流為宗旨。
- 第三條 本會以全國行政區域為組織區域，會址設於主管機關所在地區，並得報經主管機關核准設主分支機構。前項分支機構組織簡則由理事會擬訂，報請主管機關核准後行之。會址及分支機構之地址於設置及變更時應報請主管機關核備。
- 第四條 本會之任務如左：
- 一、 提倡比較病理學之研究與發展。
  - 二、 舉辦學術演講會、研討會及相關訓練課程。
  - 三、 建立國內比較醫學相關資料庫。
  - 四、 發行比較病理學相關刊物。
  - 五、 促進國內、外比較醫學之交流。
  - 六、 其他有關比較病理學術發展之事項。
- 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。

第二十條 理事、監事有下列情事之一者，應即解任：

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

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

- 第二十二條 本會得設各種委員會、小組或其它內部作業組織，其組織簡則由理事會擬定，報經主機關核備後施行，變更時亦同。
- 第二十三條 本會得由理事會聘請無給顧問若干人，其聘期與理事、監事之任期同。

#### 第四章 會議

- 第二十四條 會員大會分定期會議與臨時會議兩種，由理事長召集，召集時除緊急事故之臨時會議外應於十五日前以書面通知之。定期會議每年召開一次，臨時會議於理事會過半數認為必要，或經會員五分之一以上之請，或監事會半數函請召集時召開之。
- 第二十五條 會員不能親自出席會員大會時，得以書面委託其他會員代理，每一會員以代理一人為限。
- 第二十六條 會員大會之決議，以出席人數過半之同意行之。但章程之訂定與變更、會員之除名、理事及監事之罷免、財產之處置、本會之解散及其他與會權利義務有關之重大事項應有出席人數三分之二以上同意。但本會如果辦理法人登後，章程之變更應以出席人數四分之三以上之同或全體會員三分之二以上書面之同意行之。
- 第二十七條 理事會及監事會至少每六個月各舉行會議一次，必要時得召開聯席會議或臨時會議。  
前項會議召集時除臨時會議外。應於七日以前以書面通知，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。
- 第二十八條 理事應出席理事會議，監事應出席監事會議，不得委託出席；理事、監事連續二次無故缺席理事會、監事會者，視同辭職。

#### 第五章 經費及會計

- 第二十九條 本會經費來源如下：
- 一、入會費：一般會員新台幣壹仟元，學生會員壹佰元，贊助會員伍仟元，於入會時繳納。
  - 二、常年會費：一般會員新台幣壹仟元，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 第九屆理監事簡歷冊

序號	職別	姓名	性別	學歷	經歷	現任本職
1	理事長	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
2	常務理事	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
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	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	國防醫學院兼任助理教授
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 國立臺灣大學獸醫專業學院博士	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
7	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
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	張惠雯	女	國立臺灣大學獸醫專業學院 博士	美國哈佛醫學院博士後	國立臺灣大學獸醫專業學院副教授
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	陳燕麟	男	輔仁大學化學研究所博士	日本國立神經精神中心研究員	耕莘醫院組織病理科主治醫師
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	張晏禎	女	國立臺灣大學獸醫專業學院 博士	中央研究院博士後	國立臺灣大學獸醫專業學院助理教授
16	常務監事	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

17	監事	蔡慧玲	女			
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	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
21	秘書長	黃威翔	男	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 110 年度工作報告

## 一、召開會員大會、理監事會議、舉辦學術研討會

### (一) 會員大會

1. 第九屆第二次會員大會於 110 年 4 月 17 日於國立臺灣大學獸醫專業學院召開。

2. 第九屆理監事會議

(1) 第九屆第三次理監事會議於 110 年 4 月 17 日於國立臺灣大學獸醫專業學院召開。

(2) 第九屆第四次理監事會議於 110 年 8 月 14 日於線上舉辦。

(3) 第九屆第五次理監事會議於 110 年 12 月 11 日於國立臺灣大學獸醫專業學院召開。

3. 舉辦學術研討會

(1) 第 80 次比較病理研討會於 110 年 4 月 17 日國立臺灣大學獸醫專業學院召開。

(2) 第 81 次比較病理研討會於 110 年 8 月 14 日線上召開。

(3) 第 82 次比較病理研討會於 110 年 12 月 11 日國立臺灣大學獸醫專業學院召開。

## 二、舉辦學術演講

### (一) 第 80 次比較病理研討會邀請專題演講：

1. 振興醫院解剖病理科蕭正祥主任：動物和人類皮膚汗腺腫瘤的異與同

### (二) 第 81 次比較病理研討會邀請專題演講：

1. 施洽雯醫師：從錯誤中學習

2. 簡耀君獸醫師：獸醫細胞學

### (三) 第 82 次比較病理研討會邀請專題演講

1. 陳雅媚獸醫師：犬貓口腔病理學 (Oral pathology of dogs and cats)

2. 彭奕仁 (Yi-Jen Peng) 副教授：Hepatocellular carcinoma

## 三、舉辦學術病理切片病例討論

(一) 於第 80 次比較病理研討會共有 6 個單位提供 6 個病例供會員討論。

(二) 於第 81 次比較病理研討會共有 4 個單位提供 4 個病例供會員討論。

(三) 於第 82 次比較病理研討會共有 5 個單位提供 5 個病例供會員討論。

## 四、架設學會網站 (網址：<http://www.ivp.nchu.edu.tw/cscp/>)

(一) 提供第 80-82 次比較病理研討會活動花絮照片

## 五、獸醫師繼續教育學分認證

(一) 完成第 80 及 82 次比較病理研討會與會獸醫師再教育學分認證。



## 中華民國比較病理學會 111 年度工作計劃

### 一、 會務

#### (一) 徵求會員

### 二、 持續進行學會推廣及會員招募，擴大會員陣容，

#### (一) 整理會籍與清查會費

1. 更新整理會籍資料，並製作會員通訊錄

2. 清查會員繳費狀況，進行催繳，缺繳三年以上徹底實行停權

#### (二) 召開會議：召開會員大會一次，審查 110 年度工作報告與經費收支狀況，研議 111 年度之工作計劃及預算

#### (三) 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

### 三、 業務

#### (一) 繳納會費

#### (二) 文書處理

#### (三) 整理與更新會員信箱，刪除無效信箱

#### (四) 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

#### (五) 研討會活動照片、會員狀態及網頁維護更新

#### (六) 進行獸醫再教育學分申請及協助會員學分認證

# 中華民國比較病理學會 111 年度工作報告

## 一、 召開會員大會、理監事會議、舉辦學術研討會

### (一) 會員大會

1. 第九屆第三次會員大會於 111 年 4 月 16 日於線上召開。

2. 第九屆理監事會議

(1) 第九屆第六次理監事會議於 111 年 4 月 16 日於線上召開。

3. 舉辦學術研討會

(1) 第 83 次比較病理研討會於 111 年 4 月 16 日線上召開。

## 二、 舉辦學術演講

### (一) 第 83 次比較病理研討會邀請專題演講：

1. 彭奕仁 (Yi-Jen Peng) 副教授：Non-alcoholic fatty liver disease

2. 廖俊旺 教授：有關健康食品護肝動物模式病理評估

## 三、 舉辦學術病理切片病例討論

(一) 於第 83 次比較病理研討會共有 5 個單位提供 5 個病例供會員討論。

## 四、 架設學會網站 (網址：<http://www.ivp.nchu.edu.tw/cscp/>)

(一) 提供第 83 次比較病理研討會活動花絮照片

## 五、 獸醫師繼續教育學分認證

(一) 第 83 次比較病理研討會無繼續教育認證。

## 資料庫使用須知

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. 63<sup>rd</sup> 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				
第一次至第八十次比較病理學研討會病例分類一覽表				

### 腫瘤

病例編號	會議場次	診 斷	動物別	提 供 單 位
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
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
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
	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
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	Human	慈濟醫院病理科

		(AIDS)with disseminated Kaposi's sarcoma		
	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
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 lymphangiomyomatosi	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
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	Goose	國立中興大學獸醫病理生物學研究所



		4. cyst and atherosclerosis, chronic, testis		
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 (2) Hodgkin's lymphoma, mixed cellularity type. Acrokeratosis paraneoplastica	Human	佛教慈濟綜合醫院暨慈濟大學病理科
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	Maligant 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
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
506	73	Type B1 thymoma	Human	天主教耕莘醫院
508	73	Metastatic melanoma	Human	秀傳醫療社團法人秀傳紀念醫院
511	74	Crystal storing histiocytosis associated with multiple myeloma.	Human	羅東博愛醫院病理科
512	74	Myeloid sarcoma	Human	佛教慈濟綜合醫院暨慈濟大學病理科
513	74	Neurolymphomatosis (neurotropic lymphoma), B cell, right musculocutaneous nerve	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
514	74	Primary diffuse large B-cell lymphoma (activated B- cell type) of right testis, Stage IE at least	Human	國防醫學院三軍總醫院病理部
515	74	Thymoma, most likely, mediastinal mass	Dolphin	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
516	74	Extranodal marginal zone lymphoma of mucosa- associated lymphoid tissue (MALT lymphoma)	Human	秀傳醫療社團法人秀傳紀念醫院
517	74	Angioliposarcoma in a Cockatiel	Dog	國立中興大學獸醫病理生物學研究所
520	74	Intravascular diffuse large B cell lymphoma.	Human	國防醫學院三軍總醫院病理部
521	75	Primary anorectal malignant melanoma (PAMM)	Human	國軍桃園總醫院
523	75	Pancreatic panniculitis associated with acinar cell carcinoma	Human	羅東博愛醫院

524	75	Anaplastic large cell lymphoma (ALCL), ALK-negative	Human	秀傳醫療社團法人秀傳紀念醫院
525	75	Canine cutaneous epitheliotropic T-cell lymphoma with the involvement of left axillary lymph node	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
528	75	Basal cell carcinoma with sebaceous differentiation	Human	天主教耕莘醫院
529	76	Tongue, Schwannoma	Human	國軍桃園總醫院
530	76	Amyloid-producing odontogenic tumor	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
531	76	Embryonal rhabdomyosarcoma	Human	花蓮慈濟大學暨慈濟醫院病理科
532	76	Adenocarcinoma, suspected mammary gland tumor metastasis, mass from iris and partially ciliary bodies of right eye	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
533	76	Kaposi's sarcoma, parotid gland.	Human	羅東博愛醫院病理科
537	77	Primary appendiceal mantle cell lymphoma (MCL), B-cell type, caused acute suppurate appendicitis.	Human	國軍桃園總醫院
538	77	Follicular lymphoma in thyroid of nodular goiter.	Human	羅東博愛醫院
544	78	Ectopic parathyroid adenoma, anterior mediastinum.	Human	羅東博愛醫院
547	79	Glucagonoma, pancreas	Human	羅東博愛醫院
548	79	Neuroendocrine carcinoma, skin	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
549	79	Paranglioma of urinary bladder	Human	花蓮慈濟大學暨慈濟醫院病理科
550	79	Hepatic carcinoid (Neuroendocrine carcinoma), liver	Cat	霍普獸醫病理診斷中心
551	79	Strumal carcinoid tumor of the ovary (SCTO) arising from mature cystic teratoma	Human	國軍桃園總醫院

552	79	Pheochromocytoma and Associated Cardiomyopathy	Meerkat ( <i>Suricata suricatta</i> )	國立中興大學獸醫病理生物學研究所
553	79	Adrenal, left, laparoscopic adrenalectomy --- Pheochromocytoma, malignant. Staging (pT2)	Human	天主教耕莘醫院
554	80	Carcinoma, sweat gland, with metastases to the lung and cerebrum, the left forelimb 3 <sup>rd</sup> and 4 <sup>th</sup> digits, skin	North American cougar ( <i>Puma concolor couguar</i> )	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
555	80	Angiosarcoma, scalp	Human	羅東博愛醫院
559	80	Sebaceous adenoma	Human	天主教耕莘醫院
560	81	Glioblastoma	Human	天主教耕莘醫院
561	81	Transmissible venereal tumor (TVT)	Dog	霍普獸醫病理診斷中心
562	81	Metastatic small cell carcinoma. Right axillary lymph node.	Human	羅東博愛醫院
563	81	Presumptive chronic myelomonocytic leukemia	Central bearded dragon ( <i>Pogona vitticeps</i> )	國立中興大學獸醫病理生物學研究所
564	82	Epithelioid gastrointestinal stromal tumor (GIST)	Human	羅東博愛醫院
566	82	Intestine, small bowel, segmental resection,---Primitive neuroectodermal tumor(PNET) / Extraskelatal Ewing sarcoma Lung, needle biopsy,Small blue cell tumor, compatible with primitive neuroectodermal tumor (PNET) metastasis	Human	衛生福利部台中醫院病理科

567	82	Gastric carcinoma, whit lymphatic infiltration, stomach, dog Lymph node metastasis from gastric carcinoma, dog	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
568	82	Descending colon, adenocarcinoma, grade 2; C/W FAP syndrome associated advanced CRC.	Human	國軍桃園總醫院
569	83	Gastric Schwannoma	Human	羅東博愛醫院
571	83	Feline inductive odontogenic tumor (FIOT), cat	Cat	霍普獸醫病理診斷中心
573	83	Multiple primary malignant (MPM) (Synchronous / metachronous? or metastatic) non-Hodgkin lymphomas (DLBCLs) of the jejunum with JJ intussusception with mesenteric lymph nodal and pleural involvement.	Human	國軍桃園總醫院

## 細菌

病例編號	會議場次	診 斷	動物別	提 供 單 位
	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 cavitory tuberculosis, lung.	Human	羅東聖母醫院
54.	7	Fibrocalcified pulmonary TB, left Apex.	Human	林口長庚紀念醫院



		Mixed actinomycosis and aspergillosis lung infection with abscess DM, NIDDM.		
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 ( <i>Lawsonia intracellularis</i> infection)	Porcine	屏東縣家畜疾病防治所
68.	9	Liver abscess ( <i>Klebsillae pneumoniae</i> )	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
	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 <i>Streptococcus</i> 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 <i>Leptospira</i> 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
522	75	Secondary syphilis	Human	佛教慈濟綜合醫院暨慈濟大學
526	75	Dermatophilosis caused by <i>Austwickia chelonae</i> (basonym <i>Dermatophilus chelonae</i> ) in a free-ranging wild Taiwanese japalure	Taiwanese japalure	台灣大學獸醫學系

## 病毒

病例編號	會議場次	診 斷	動物別	提 供 單 位
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
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, polyomavirus 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, severe, with epidermal pustules, ballooning degeneration, proliferation, and eosinophilic intracytoplasmic inclusion bodies, Saanen goat. 2. Haired skin: Dermatitis, proliferative, lymphoplasmacytic, subacute, diffuse, severe, with marked epidermal pustules, ballooning degeneration, acanthosis, hyperkeratosis, and eosinophilic intracytoplasmic inclusion bodies.	Goat	台灣動物科技研究所
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
510	73	Porcine reproductive and respiratory syndrome (PRRS)	pig	國立中興大學獸醫病理生物學研究所
542	78	Feline infectious peritonitis (FIP)	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
543	78	Porcine epidemic diarrhea (PED)	Pig	國立中興大學獸醫系
556	80	Cutaneous pigeonpox	Pigeon	國立中興大學獸醫系

### 黴菌（含藻類）

病例編號	會議場次	診 斷	動物別	提 供 單 位
23.	3	Chromomycosis	Human	台北病理中心
47.	7	Lung: metastatic carcinoma associated with cryptococcal infection. Liver: metastatic carcinoma.	Human	三軍總醫院

		Adrenal gland, right: carcinoma (primary)		
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	46	Allergic fungal sinusitis	Human	羅東博愛醫院
326	46	Meningoencephalitis, Aspergillus flavus	Cat	國立臺灣大學 獸醫專業學院
331	47	Histoplasmosis	Human	花蓮慈濟醫院病理科
332	47	Pulmonary Blastomycosis	Rat	中興大學獸醫學院
355	50	Encephalitozoonosis	Rabbit	國立中興大學獸醫學院
356	50	Eosinophilic granuloma with fungal infection, Skin	Cat	國立臺灣大學獸醫專業學院
386	54	Dermatophytic pseudomycetoma	Cat	台灣動物科技研究所
395	56	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	63	Protothecosis	Dog	國家實驗動物繁殖及研究中心
449	65	Porcine epidemic diarrhea (PED)	Pig	國立台灣大學分子暨比較病理生物學研究所
519	75	Chicken infectious anemia in chicken	Chicken	國立中興大學獸醫學院

536	77	Skin infection of Orf virus	Human	佛教慈濟醫療財團法人 花蓮慈濟醫院
545	78	Candida endocarditis	Human	佛教慈濟醫療財團法人 花蓮慈濟醫院
570	83	Protothecosis	Dog	立眾生技有限公司

### 寄生蟲 (含原蟲)

病例編號	會議場次	診 斷	動物別	提 供 單 位
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 Toxocara canis 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 Angiostrongylus cantonensis	Human	台北榮民總醫院 病理檢驗部
156	19	Parastrongylus cantonensis infection	Formosan gem-faced civet	中興大學獸醫學院
	19	Capillaria hepatica, Angiostrongylus cantonensis	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
	29	Psoroptes cuniculi 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 Spironucleus (Hexamita) muris	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	Trichosomoides crassicauda, 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 (Bordetellae trematum) with Trichosomoides crassicauda 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
540	77	Systemic toxoplasmosis	Ring-tailed lemur	國立台灣大學分子暨比較病理生物學研究所
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
572	83	Systemic Coccidiosis	ducks	中興大學獸醫病理生物學研究所

### 立克次體

病例編號	會議場次	診 斷	動物別	提 供 單 位
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

### 其他

病例編號	會議場次	診 斷	動物別	提 供 單 位
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
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
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	Eosinophilic 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
504	73	Autoimmune pancreatitis (IgG4 related pancreatitis)	Human	羅東博愛醫院病理科
505	73	Thrombotic microangiopathy with hemorrhagic infarct of brain, acute myocardial ischemia and acute kidney injury	Human	佛教慈濟綜合醫院暨慈濟大學病理科
507	73	The most likely diagnosis is erythema multiforme (EM).	Dog	國立臺灣大學獸醫專業學院
509	73	Doxorubicin-induced diseases	Chicken	中興大學獸醫病理生物學研究所
518	74	Idiopathic multicentric Castleman disease with abundant IgG4-positive cells	Human	佛教慈濟綜合醫院暨慈濟大學病理科
527	75	Coryneform hyperkeratosis in NOG mice	Mice	中興大學獸醫病理生物學研究所
534	76	Multiple Cartilaginous Exostoses Causing Spinal Cord Compression in a Dog	Dog	中興大學獸醫病理生物學研究所
535	76	Chondrodysplasia, diffuse, severe, chronic, growth plate, femur.	Rat	中興大學獸醫病理生物學研究所
539	77	Epitheliotropic mastocytic conjunctivitis	Cat	臺灣動藥國際股份有限公司
541	77	Protothecosis	Dog	國立臺灣大學獸醫專業學院
546	78	Ascites syndrome in broilers	Avian	國立中興大學動物疾病診斷中心

557	80	Systemic lupus erythematosus with erythema multiforme-like lesions, human	Human	佛教慈濟綜合醫院暨慈濟大學病理科
558	80	Pododermatitis, left forelimb and right hindlimb foot pad	Cat	霍普獸醫病理診斷中心
565	82	Intestinal intramural hemorrhage/hematoma, small intestine	Dog	霍普獸醫病理診斷中心





## 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

黃威翔 助理教授

cscptaiwan@gmail.com

02-33663760

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 黃威翔 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：02-33663760



