

**Chinese Society of Comparative Pathology**  
中華民國比較病理學會  
第 75 次比較病理學研討會  
皮膚系統疾病專題  
(Diseases of Integumentary System)



主辦單位  
**Chinese Society of Comparative Pathology**  
中華民國比較病理學會  
國軍桃園總醫院  
April 21, 2019 (中華民國 108 年 4 月 21 日)

**SCHEDULE**  
**75<sup>th</sup> MEETING OF COMPARATIVE PATHOLOGY**  
 中華民國比較病理學會 第 75 次比較病理學研討會  
 皮膚系統疾病專題

時間：108 年 4 月 21 日(星期日)  
 地點：國軍桃園總醫院 醫療大樓二樓階梯教室  
 地址：32551 桃園市龍潭區中興路 168 號  
 電話：0963750228

Time (時間)	Schedule (議程)		Moderator (主持)
09:45~10:10	Registration (報到)		
10:10~10:20	Opening Ceremony (致詞) 許永祥 理事長/張俊梁 主任		
10:20~11:20	專題演講	專題演講: 三軍總醫院病理部 高鴻偉 主任 題目：Overview of Blistering Disorders of Human	張惠雯 秘書長
11:20-11:30	Coffee Break (拍團體照)		
11:35~12:00	Case 521	Chang, Jun-Liang (張俊梁), MD, PhD1, Chien-Chih Yeh (葉建志), MD, PhD2 <sup>1</sup> Department of Pathology & Laboratory Medicine, Taoyuan Armed Forces General Hospital (國軍桃園總醫院 病理檢驗部) <sup>2</sup> Department of Surgery, Taoyuan Armed Forces General Hospital (國軍桃園總醫院 外科部)	張惠雯 秘書長
12:00~13:00	Lunch (餐廳) Board Meeting (理監事會議) 醫療大樓 一樓 病理檢驗部 教學會議室		
13:00~13:25	Case 522	Cheng, Chia-Chun (鄭家鈞) <sup>1</sup> ; Hsu Yung-Hsiang (許永祥) <sup>1</sup> , MD. <sup>1</sup> Department of Pathology, Buddhist Tzu-Chi General Hospital & University (佛教慈濟醫院暨慈濟大學病理科)	朱旆億 理事
13:25~13:50	Case 523	Shih, Chia-Wen (施洽雯), M.D., M.S. 1 Chu, Chia-Hui (朱嘉惠), M.D.2 1. Department of Pathology, Lotung Poh-Ai Hospital (羅東博愛醫院病理科) 2. Department of Dermatology, Lotung Poh-Ai Hospital (羅東博愛醫院皮膚科)	朱旆億 理事
13:50~14:15	Case 524	<u>Pei-Yi Chu (朱旆億), MD PhD</u> Department of Pathology, Show Chwan Memorial Hospital, Changhua, Taiwan(彰化秀傳醫院病理科)	朱旆億 理事
14:15~14:50	Coffee Break		
14:50~15:15	Case 525	Shih, Cheng-Hsin (施正心), DVM; Jeng, Chian-Ren (鄭謙仁), DVM, PhD <sup>1</sup> ; Hui-Wen Chang (張惠雯), DVM, PhD <sup>1</sup> ; Pang, Victor Fei (龐飛), DVM, PhD <sup>1</sup> * <sup>1</sup> Graduate Institute of Molecular and Comparative Pathobiology, School of Veterinary Medicine, National	朱旆億 理事

		Taiwan University (國立台灣大學獸醫專業學院分子暨比較病理生物學研究所)	
15:15~15:40	Case 526	Li, Wen-Ta (李文達)*, DVM, PhD <sup>1,2</sup> , Chang, Hui-Wen (張惠雯), DVM, PhD; Pang, Victor, Fei (龐飛), DVM, PhD; Wang, Fun-In (王汎熒), DVM, PhD; Liu, Chen-Hsuan (劉振軒), DVM, PhD; Jeng, Chian-Ren (鄭謙仁), DVM, PhD; Graduate Institute of Molecular and Comparative Pathobiology, School of Veterinary Medicine, National Taiwan University (國立台灣大學獸醫專業學院分子暨比較病理生物學研究所)	朱旆億 理事
15:40~16:05	Case 527	Yan-Xiu Lin(林妍秀), DVM, MS <sup>1</sup> , Yun-Chieh Tuan (段雲傑), DVM, MS <sup>1</sup> , Fang-Yi Tsai(蔡芳宜), DVM, MS <sup>2</sup> , Yi-Hui Su(蘇滄慧), DVM, MS <sup>1</sup> , Ji-Hang Yin(殷際航), DVM, MS <sup>2</sup> , Ying-Chen Wu(吳迎晨), DVM, PhD <sup>2</sup> , Hue-Ying, Chiou (邱慧英), DVM, PhD <sup>1</sup> , Jiunn-Wang Liao(廖俊旺), DVM, PhD <sup>2</sup> <sup>1</sup> Graduate Institute of Veterinary Pathobiology, National Chung Hsing University (國立中興大學獸醫病理生物研究所) <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)	廖俊旺 常 務監事
16:05~16:30	Case 528	蘇雪妍, 病理科 住院醫師, 天主教耕莘醫院 陳燕麟, 病理科 主治醫師, 天主教耕莘醫院	廖俊旺 常 務監事
<b>16:30-17:00</b>	<b>General Discussion (綜合討論) 許永祥 理事長</b>		

## 目 錄

---

一、	Schedule (議程表) .....	1
二、	目錄.....	3
三、	專題演講.....	4
四、	Case Diagnosis.....	5
五、	Comparative Pathology Case 521.....	6
	Comparative Pathology Case 522.....	11
	Comparative Pathology Case 523.....	13
	Comparative Pathology Case 524.....	16
	Comparative Pathology Case 525.....	19
	Comparative Pathology Case 526.....	21
	Comparative Pathology Case 527.....	24
	Comparative Pathology Case 528.....	28
六、	中華民國比較病理學會章程.....	29
七、	第八屆理監事名單簡歷冊.....	33
八、	107 年度工作報告.....	35
	108 年度工作計畫.....	36
九、	107 年度各類經費表.....	37
十、	數位組織切片資料庫.....	42
十一、	比較病理研討會病例分類一覽表.....	43
十二、	會員資料更新服務.....	66
十三、	入會辦法.....	67
十四、	入會申請書.....	68

---

## Special Lecture

(專題演講)

題目：Overview of Blistering Disorders of Human

高鴻偉 主任  
三軍總醫院病理部

### Abstract

A blister (bulla, or, when small, a vesicle) is a bubble of fluid that forms beneath a thin layer of dead skin. The fluid is a mixture of water and proteins that oozes from injured tissue. Blisters most commonly form in response to a specific injury, such as a burn or irritation, and usually involve only the topmost layers of skin. These blisters heal quickly, usually without leaving a scar. Blisters that develop as part of a systemic (bodywide) disease may start in the deeper layers of the skin and cover widespread areas. These blisters heal more slowly and may leave scars.

Many diseases and injuries can cause blistering, but three autoimmune diseases are among the most serious:

- **Bullous pemphigoid**
- **Dermatitis herpetiformis**
- **Pemphigus vulgaris**

In an autoimmune disease, the body's immune system, which normally protects the body against foreign invaders, mistakenly attacks the body's own cells—in this case, the skin. Other autoimmune blistering disorders include

- **Mucous membrane pemphigoid**
- **Pemphigoid gestationis**
- **Epidermolysis bullosa acquisita**
- **Linear IgA disease**
- **Pemphigus foliaceus**

Other blistering disorders include staphylococcal scalded skin syndrome (SSSS), toxic epidermal necrolysis (TEN), severe cellulitis, and certain drug rashes.

Although burns and repeated friction (for example from wearing tight shoes or using a shovel for a long time) are a common cause of blisters, these are not considered blistering disorders.

**MEETING OF COMPARATIVE PATHOLOGY**  
**April 21, 2019**  
**中華民國比較病理學會第 75 次比較病理學研討會**  
**CASE DIAGNOSIS**  
**75 CP slide website**  
**1080421**

Case No.	Presenter	Slide No.	Diagnosis
Case 521	張俊梁	123231R1	Primary anorectal malignant melanoma (PAMM) <a href="http://www.ivp.nchu.edu.tw/slide_view.php?id=1535">http://www.ivp.nchu.edu.tw/slide_view.php?id=1535</a>
Case 522	鄭家鈞	S2018-15716A	Secondary syphilis <a href="http://www.ivp.nchu.edu.tw/slide_view.php?id=1533">http://www.ivp.nchu.edu.tw/slide_view.php?id=1533</a>
Case 523	施洽雯	LP-917	Pancreatic panniculitis associated with acinar cell carcinoma <a href="http://www.ivp.nchu.edu.tw/slide_view.php?id=1537">http://www.ivp.nchu.edu.tw/slide_view.php?id=1537</a>
Case 524	朱旆億	S191049	Anaplastic large cell lymphoma (ALCL), ALK-negative <a href="http://www.ivp.nchu.edu.tw/slide_view.php?id=1534">http://www.ivp.nchu.edu.tw/slide_view.php?id=1534</a>
Case 525	施正心	NTU0187344B	Canine cutaneous epitheliotropic T-cell lymphoma with the involvement of left axillary lymph node <a href="http://www.ivp.nchu.edu.tw/slide_view.php?id=1576">http://www.ivp.nchu.edu.tw/slide_view.php?id=1576</a>
Case 526	李文達	NTU2017-256413	Dermatophilosis caused by <i>Austwickia chelonae</i> (basonym <i>Dermatophilus chelonae</i> ) in a free-ranging wild Taiwanese japalure <a href="http://www.ivp.nchu.edu.tw/slide_view.php?id=1538">http://www.ivp.nchu.edu.tw/slide_view.php?id=1538</a>
Case 527	林妍秀	CO17-411	Coryneform hyperkeratosis in NOG mice <a href="http://www.ivp.nchu.edu.tw/slide_view.php?id=1536">http://www.ivp.nchu.edu.tw/slide_view.php?id=1536</a>
Case 528	蘇雪妍	441927 432537	Basal cell carcinoma with sebaceous differentiation <a href="http://www.ivp.nchu.edu.tw/slide_view.php?id=1575">http://www.ivp.nchu.edu.tw/slide_view.php?id=1575</a> <a href="http://www.ivp.nchu.edu.tw/slide_view.php?id=1574">http://www.ivp.nchu.edu.tw/slide_view.php?id=1574</a>

**Case Number: 521**

**Slide Number: 123231R1**

**Slide View: [http://www.ivp.nchu.edu.tw/slide\\_view.php?id=1535](http://www.ivp.nchu.edu.tw/slide_view.php?id=1535)**

**Chang, Jun-Liang (張俊梁), MD, PhD<sup>1</sup>, Chien-Chih Yeh (葉建志), MD, PhD<sup>2</sup>**

**<sup>1</sup>Department of Pathology & Laboratory Medicine, Taoyuan Armed Forces General Hospital (國軍桃園總醫院 病理檢驗部)**

**<sup>2</sup>Department of Surgery, Taoyuan Armed Forces General Hospital(國軍桃園總醫院 外科部)**

## **CASE HISTORY:**

**Signalment:** A 70-year-old male

### **Clinical history:**

A 70-year-old male visited at our hospital due to protruding anal mass with fresh blood bleeding during defecation in recent three months.

The patient was robust in the past. On six months ago in admission, he suffered from passage of bloody stools. He also noted intermittent rectal bleeding, although this was attributed to hemorrhoids. He visited at GI Division in our hospital had received colonoscopy with tumor biopsy and multiple tubulovillous and tubular adenomas was diagnosed. The present illness could be traced back to recently three months ago. He was episodes of anal protruding mass and painful anal bleeding after defecation with bloody stool. He denied any changes in appetite or weight loss. His family history was negative for colon cancer. He visited at the Colorectal Surgery Division. He was admitted under the mixed hemorrhoids with grade III over 3,7 o'clock directions for further investigation and management.

He is a Taiwanese. He has no systemic diseases or medication. He had gall stone with choledochitis post cholecystectomy for 5 years. He has habit of cigarette smoking about 1 PPD for over 30 years with social alcoholic beverages drink. No habit of use illicit drugs. No history of traveling or going to abroad in recent six months. He was denied allergy to food or drugs. He denied any changes in appetite or weight loss; family history was negative for colon cancer.

In admission, physical examination, vital sign showed BT was 35.8°C, PR was 58/min, RR was 18/min, BP was 114/71 mmHg, body height was 162cm and body weight was 65Kg. General appearance showed alertness with ill-looking. HEENT conditions were no conjunctiva, no icteric sclera, or palpable mass over head and neck areas. Heart was regular heart beats, S1→S2, No S3/S4, grade 2/6 systolic murmur on apex and LSB, no thrill, PMI in 5<sup>th</sup> ICS lateral to middle clavicular line. Chest showed symmetric chest wall expansion, clear breath sound, no rhonchi, no wheezing or basal rales. Abdomen was soft and ovoid, distend, normal bowel sound, no shifting dullness, no local tenderness or palpable liver. Back and spine showed no spine deformity, no costovertebral angle knocking pain. Genitourinary showed no hernia, no deformity or sexual organs. Extremities showed no clubbing or cyanosis or pitting edema. Neurological examination showed non-remarkable significant or neurological defect. Digital rectal examination showed a protruding perianal mass with fresh bleeding status and the grade III mixed hemorrhoids was diagnosed. Grade II prostate, non-tenderness or nodularity was also noted. Others were non-contributions.

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

The laboratory data included the CBC, Hb was 16.3 gm/dL (14.0-18.0), WBC was 5.4 x 10<sup>3</sup>/ul (4500-11000), aPTT was 28.1 sec. The biochemistry results showed within normal limits. The serum tumor biomarkers included CA199, AFP, CEA, PSA, and beta-HCG displayed within normal limits. The CxR image showed COPD with mild chronic bronchitis over bilateral lower lobes. No further any imaging information provided. Consequently he underwent hemorrhoidectomy.

### **Gross Findings:**

The specimen submitted consisted of two small pieces of anal tissue fragments showed tan-brownish in color with soft in consistency, measured up to 3 by 1.5 by 1 cm in the largest one. Total excised specimen submitted was embedded for serial section.

## **CASE RESULT:**

### **Histopathologic Findings:**

Microscopically, the anorectal tissue fragments submitted demonstrated pictures of malignant melanoma, tumorigenic type, radial and vertical growth phases with chronic ulcer. The malignant tumor was composed of underlying squamous epithelial, moderate pleomorphic cells and epithelioid, abundant cytoplasm with large hyperchromatic nuclei. Frequently atypical mitoses were a striking feature and illustrated dusty tan of melanocytes-producing melanin pigment forming trabeculae or clusters of nevus cellular nests adjacent to the ulcerative overlying squamous mucosa. These malignant cells displayed extended anorectal junctional mucosa, infiltrative growing downward within deep muscular layer and marked ulcerative anal skin. However, the base of tumor and cut margins showed positive for tumor involvement. The pathologic specimen submitted demonstrated a malignant melanoma arising in the perianal skin and directly invaded into the rectum.

### Differential Diagnoses:

Atypical reactive lymphoid hyperplasia  
Malignant lymphomas  
Undifferentiated carcinoma  
Malignant melanoma

### **Immunohistochemistry:**

These melanoma cells showed positively diffusely immunoreactivity for HMB-45, vimentin, S-100 protein, and Melan-A stains. There also presented negative for pan-CK, LCA, CD34, and CEA stains.

### **Anatomic Diagnosis:**

#### **Primary anorectal malignant melanoma (PAMM)**

(Pathological TNM stage: p any T any N M1a, Stage IV)

*a: Metastasis to one site or one organ is identified without microscopic confirmed.*

1. Tumor node metastasis (TNM) staging of the rectal cancer based on the 8<sup>th</sup> American Joint Committee on Cancer (AJCC) staging system (Dukes' D);
2. Anal TNM, TNM staging of the anal cancer based on the 8th AJCC staging system.

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

He was no complication during hospitalized days. Additionally, the patient's family refused to accept further therapeutic course arrangement. He was discharge under stable conditions and referred to OPD follow-up and further imaging study was also arranged. Subsequently, he transferred to the medical center for further management and advanced liver metastasis was found. Unfortunately, finally the patient was expired a half year later.

### **Discussion:**

Malignant melanomas are extremely rarely aggressive tumors that arise from the pigment-producing melanocytes. The most common site of malignant melanoma is the skin, followed by eyes and the anorectal region (Bolivar et al., 1982; Ceccopieri et al., 2000). Primary malignant melanoma of the anus and rectum is a rare and more aggressive neoplasm that tends to invade locally and metastasize early in the course of the disease. Primary anorectal malignant melanomas (PAMM) have



been described the firstly by Moore in 1987 and they accounted for 0.2–3% of all malignant melanomas and 0.1–4.6% of all rectal malignant tumors (Ojima et al., 1999; Damodaran et al., 2008). Overall, anal melanoma is very uncommon, accounting for approximately 1% of all anal malignancies, 0.05% of all colorectal malignancies and 0.4–1.6% of all melanomas. Furthermore, patients with PAMM are found to have distant metastases at the time of their initial diagnosis. It is usually seen in the 5th and 6th decades in the adults and the females are affected much more than the males (Che et al., 2011). The median age at diagnosis was 57, and the female-to-male ratio was 1:0.47. Mucosal melanomas (MMs) account for approximately 1.2% of all melanomas and lesser than 25% are anorectal, respectively.

PAMM is often difficult to diagnose due to the hidden site. The most common presentations encountered were hematochezia (50%), difficult passage of stool (18%), and bowel habit change and anal pain (both 11%), in descending order of frequency. Common imaging findings on MRI included a large intraluminal polypoid mass (75.0% of lesions) with little perirectal or anal infiltration (100.0%). Usually common symptoms were usually similar symptoms of rectum cancer such as anal bleeding, change in bowel habits, anal mass, pain, and is commonly misdiagnosed as hemorrhoids initially. PAMM is characterized by aggressive behavior and a poor prognosis. Up to date, there are many investigating theories regarding AM pathogenesis. Some consider that PAMM may be related to oxidative stress in the region and/or to immunosuppression. Others propose that PAMM may derive from Schwannian neuroblastic cells or cells of the amine-precursor uptake and decarboxylation system of the gut. Together with late and nonspecific signs and symptoms which usually occur only in conjunction with large masses, diagnosis of these mucosal melanomas is often delayed. Most frequently, the signs and symptoms are obstruction, rectal bleeding, pain, or rectal tenesmus.

Endorectal ultrasonography, CT, and MRI may provide valuable information in the evaluation of tumor size and presence of regional lymph node metastases. Grossly, the majority tumors are polypoid and pigmented and arise near the dentate line. They may also present as nodular prolapsed masses such as hemorrhoids. The mean length, width, and depth involvement of these masses were 3.5, 2.9, and 2.3 cm, respectively. The median size of the tumor was 4.3 cm. In microscopically, tumor cells demonstrate various histological variants of PAMM such as epithelioid, spindle cell, lymphoma-like, and pleomorphic, arranged in nests and individual cells may be epithelioid or spindled in shape. These clusters of tumor cells invade the overlying squamous mucosa in a pagetoid manner and are characterized by immunohistochemistry.

Histopathologically, PAMMs show considerable variability regarding the size and type of cells and can mimic malignant lymphoma, small round cell sarcoma, spindle cell sarcoma, gastrointestinal stromal tumor and epidermoid carcinoma. Immunohistochemical evaluation (using as HMB-45, S-100, Melan-A, and Vimentin) are indicated as general skin melanoma features. PAMM show usually intensively positively immunostaining for Melan-A, tyrosinase, S-100 protein, and HMB-45, although there is often variability in strength and distribution. Additionally, HMB-45 and Melan A antibody are the stains specific for melanocytes used for diagnosis of malignant melanoma.

Since PAMM is not sensitive to radiotherapy and chemotherapy, these treatment methods have a limited use. Surgery (abdominoperineal resection, APR) and wide local excision (WLE) are major methods that can be chosen and is the most effective management for PAMM. However, this is not associated with improved overall survival. The biological behavior of PAMM is characterized by rapid growth and a high metastasis rate through vessels of the vascular system. The 5-year survival rate for PAMM was reported to be as lower as 20%, in contrast to the value of approximately 80% for cutaneous melanomas. Furthermore, up to 67% of patients are found to have distant metastases at the initial diagnosis with PAMM. The previous reported 5-year overall survival rate is 6%-15% of patients after surgery. Early-stage detection is important. The main determinants of prognosis are the

depth of invasion and stage of the disease. Up to date, there is no well-established standard adjuvant chemotherapy regimen in PAMM and particularly in metastatic disease. Postoperative radiotherapy may improve locoregional control after wide local excision. The only uncertainty is the extent of excision, that is, a limited excision with WLE or radical excision (APR). Immunochemotherapy including systemic chemotherapeutic agents and immunomodulators (IL-2) has been shown to provide partial benefit in the treatment of AMM in some studies (Ballo et al., 2002).

Generally, the growth of PAMM closely resembles the nodular pattern of its cutaneous counterpart. This feature elucidates its poor survival and several reports have corroborating data that link survival most closely with tumor thickness. There are two methods used for staging of anorectal malignant melanoma. First one is the melanoma staging system of the American Joint Committee on Cancer (AJCC) and this system is based on the depth of primary tumor and tumor invasion to lymph nodes (Chang et al., 1998). Patients with anal melanoma (AM) with a thickness  $\leq 2$  mm have better survival than patients with lesions  $> 2$  mm. Regarding tumor size, Goldman et al. reported a correlation between overall survival and tumor size, showing greater overall survival for patients with tumors  $\leq 2$  cm. However, two alternatives, based on the 7th American Joint Committee on Cancer (AJCC) staging system, might be applicable to AM is tumor node metastasis (TNM) staging of rectal cancer (rectal TNM) and tumor node metastasis of anal canal cancer (anal TNM). Rectal TNM is based on the depth of tumor invasion into or beyond the wall of the rectum (T), number of regional lymph nodes involved (N), and status of distant metastases (M). Anal TNM differs from rectal TNM in terms of tumor size (T) and status of regional or systemic LN involvement (N). The accuracy of prognosis in patients diagnosed with AMM and lymph node metastasis has improved by using rectal TNM staging, which includes information regarding the number of lymph node metastases.

Patient with PAMM in clinical, morphology, immunohistochemistry and DNA analysis demonstrated that lower mutational load but higher structural chromosomal variant load compared with cutaneous melanomas. Aggressive and poor responses of PAMMs to immunotherapy may be caused by lower immunogenicity of these tumors as characterized by low mutation burden (and therefore low neoantigenicity), low TILs infiltrates and low PD-L1 expression. Further investigation is required to determine whether TILs and PD-L1 expression predict response to immunotherapy in patients with mucosal melanoma. PAMM has low rates of tumor infiltrating lymphocytes (TILs) and a poor response to immunotherapy. Poor responses of PAMMs to immunotherapy may be caused by lower immunogenicity of these tumors as characterized by low mutation burden (and therefore low neoantigenicity), low TILs infiltrates and low PD-L1 expression. Further investigation is required to determine whether TILs and PD-L1 expression predict response to immunotherapy in patients with mucosal melanoma.

### **Conclusion:**

PAMM is extremely rare and has very poor survival. Early-stage detection is important in clinically. The main determinants of prognosis are the depth of invasion and stage of the disease. The treatment should be focused on minimizing morbidity and maximizing the quality of life and function while removing the gross tumor. Surgical intervention is the treatment of main choice. The goal of therapy is to achieve negative margins. Due to the morbidity of an APR, WLE is favored when technically feasible. The benefit of adjuvant radiation and systemic therapy remains unclear.

### **References:**

1. Atak I., 2018. Anorectal Malignant Melanoma: Retrospective analysis of six Patients and review of the literature. Prague Medical Report. 119: 2–3, p. 97–106.
2. Park HJ, Kim HJ, Park SH, Lee JS, Kim AY, Kim SW, Hong SM., 2018. JOURNAL CLUB: Primary Anorectal Melanoma: MRI Findings and Clinicopathologic Correlations. AJR Am J Roentgenol. 211(2):W98-W108 .

3. Belbaraka R, Elharroudi T, Ismaili N, Fetohi M, Tijami F, Jalil A, et al. , 2012. Management of anorectal melanoma: report of 17 cases and literature review. *J Gastrointest Cancer*. 43:31-5.
4. Chang AE, Karnell LH, Menck HR., 1998. The National Cancer Data Base report on cutaneous and noncutaneous melanoma: a summary of 84,836 cases from the past decade. The American College of Surgeons Commission on Cancer and the American Cancer Society. *Cancer*. 83:1664-78.
5. Falch C, Stojadinovic A, Hann-von-Weyhern C, Protic M, Nissan A, Faries MB, et al., 2013. Anorectal malignant melanoma: extensive 45-year review and proposal for a novel staging classification. *J Am Coll Surg*. 217:324-35.
6. Chae WY, Lee JL, Cho DH, Yu CS1, Roh J, Kim JC., 2016. Preliminary Suggestion about Staging of Anorectal Malignant Melanoma May Be Used to Predict Prognosis. *Cancer Res Treat*. 48(1):240-9.
7. Singer M, Mutch MG. Anal melanoma. *Clin Colon Rectal Surg*. 2006 May;19(2):78-87.
8. Saraswat B, Purohit R, Singh A, YadavInt R., 2015. Primary anal malignant melanoma: a case report. *Surg J*. 2(2):304-307.
9. Dodds TJ, Wilmott JS, Jackett LA, Lo SN, Long GV, Thompson JF, Scolyer RA ., 2019. Primary anorectal melanoma: clinical, immunohistology and DNA analysis of 43 cases. *Pathology*. 51(1):39-45.
10. Atak I. Anorectal Malignant Melanoma: Retrospective Analysis of Six Patients and Review of the Literature. *Prague Med Rep*. 2018;119(2-3):97-106.
11. Che, X., Zhao, D. B., Wu, Y. K., Wang, C. F., Cai, J. Q., Shao, Y. F., Zhao, P., 2011. Anorectal malignant melanomas:retrospective experience with surgical management. *World J. Gastroenterol*. 17, 534–539.
12. Choi, B. M., Kim, H. R., Yun, H. R., Choi, S. H., Cho, Y. B., Kim, H. C., Yun, S. H., Lee, W. Y., Chun, H. K., 2011. Treatment outcomes of anorectal melanoma. *J. Korean Soc. Coloproctol*. 27, 27–30.
13. Chute, D. J., Cousar, J. B., Mills, S. E. Anorectal malignant melanoma morphologic and immunohistochemical features. *Am. J. Clin. Pathol*. 2006, 126, 93–100.
14. Falch, C., Stojadinovic, A., Hann-von-Weyhern, C., Protic, M., Nissan, A., Faries, M. B., Daumer, M., Bilchik, A. J.,Itzhak, A., Brücher, B. L., 2013. Anorectal malignant melanoma: extensive 45-year review and proposal for a novel staging classification. *J. Am. Coll. Surg*. 217, 324–335.
15. Yeh, J. J., Shia, J., Hwu, W. J., Busam, K. J., Paty, P. B., Guillem, J. G., Coit, D. G., Wong, W. D., Weiser, M. R., 2006. The role of abdominoperineal resection as surgical therapy for anorectal melanoma. *Ann. Surg*. 244, 1012–1017.
16. Perez, D. R., Trakamsanga, A., Shia, J., Nash, G. M., Temple, L. K., Paty, P. B., Guillem, J. G., Garcia-Aguilar, J., Bello, D., Ariyan, C., Carvajal, R. D., Weiser, M. R., 2013. Locoregional lymphadenectomy in the surgical management of anorectal melanoma. *Ann. Surg. Oncol*. 20, 2339–2344.
17. Ballo, M. T., Gershenwald, J. E., Zagars, G. K., Lee, J. E., Mansfield, P. F., Strom, E. A., Bedikian, A. Y., Kim, K. B., Papadopoulos, N. E., Prieto, V. G., Ross, M. I.,2002. Sphincter-sparing local excision and adjuvant radiation for anal-rectal melanoma. *J. Clin. Oncol*. 20, 4555–4558.
18. Svoboda SM, Attuwaybi B., 2018. Anorectal melanoma treated with abdominoperineal resection. *Clin Case Rep*. 2;6(11):2174-2177.
19. Liu G, Wang Y, Fei F, Wang X, Li C, Liu K, Du J, Cao Y, Zhang S., 2018. Clinical characteristics and preliminary morphological observation of 47 cases of primary anorectal malignant melanomas. *Melanoma Res*. 28(6):592-599.
20. Chae WY, Lee JL, Cho D-H, Yu SK, Roh, J, Kim JC., 2016. Preliminary suggestion about staging of anorectal malignant melanoma may be used to predict prognosis. *Cancer Res Treat*. 48(1):240–9.
21. Scott JF, Gerstenblith M., 2018. Noncutaneous Melanoma [Internet]. Brisbane (AU): Codon Publications; Mar.
22. Saraswat B, Purohit R, Singh A, Yadav R., 2015. Primary anal malignant melanoma: a case report. *Int Surg J*. 2015 May;2(2):304-307.

**Case Number: 522**

**Slide Number: S2018-15716A**

**Slide View: [http://www.ivp.nchu.edu.tw/slide\\_view.php?id=1533](http://www.ivp.nchu.edu.tw/slide_view.php?id=1533)**

**Cheng, Chia-Chun (鄭家鈞)<sup>1</sup>; Hsu Yung-Hsiang (許永祥)<sup>1</sup>, MD.**

**<sup>1</sup>Department of Pathology, Buddhist Tzu-Chi General Hospital & University (佛教慈濟醫院暨慈濟大學病理科)**

### **CASE HISTORY:**

**Signalment:** A 27-year-old, male, electrician

He was in good health status until 2 years ago, when he visited another hospital due to fever. HIV infection was diagnosed then, and he started to receive HAART for treatment. However, he stopped medication by himself due to no systemic symptoms 3 months after HAART. Palmar skin lesions developed 3 months after discontinuation of HAART with erythematous macules. Truncal lesions also developed with erythematous papules and plaques on abdomen, back, and proximal limbs. Genital chancre and ulcer with painful sensation was noted by patient since 1.5 year ago. These lesions developed rapidly with disseminated pattern. Chinese traditional herbal medication was tried with partial improvement. He also complained of facial erythema and scalp lesions with thick scales and acne-like lesions. The skin lesions were painless with mild itchiness.

Blurred vision with red eye at oculus dexter was newly developed 3 months ago, similar symptom oculus sinister developed since last week. He denied progressed facial skin lesions. He received topical treatment at LMD with impression of anterior uveitis and the eye pain was relieved. However, blurred vision oculus uterque progressed. Therefore, he visited our ophthalmology OPD on 10/7/10/8. At OPD, lots of confluent vesicles with some pustules on face. Herpes zoster with eye involvement was suspected and dermatologist was consulted. Lab data show reactive RPR (1:2048), TPPA (>1:20480) and positive HIV Ag/Ab. With the tentative diagnosis of HIV and secondary syphilis, biopsy of abdominal and facial lesion was done.

The biopsy showed pictures compatible with secondary syphilis. After injection of Penicillin G for almost 3 weeks, the patient discharged and kept OPD follow-up for HIV infection. The latest lab data showed reactive RPR (1:256) and TPPA (>1:20480), suggestive of improvement.

### **Gross Findings:**

1. Multiple well-demarcated erythematous to violaceous plaques with thick grayish scales ranging from 1 cm to 8cm in diameter on bilateral nipples, abdomen, bilateral arms and lower back
2. Several faint erythematous plaques with elevated annular border, yellowish scales, and follicular plugging on facial and paranasal area

### **CASE RESULT:**

#### **Histopathological Findings:**

[1] Skin, face, right [2] Skin, abdomen, right

Microscopically, both sections show marked lymphoplasmocytic infiltration and aggregation over the superficial dermis and dermoepidermal junction with interface dermatitis and epidermal microabscess formation. Warthin Starry stain and immunohistochemical stain of Treponema show abundant spirochetes.

**Pathological Diagnosis:** Secondary syphilis

**Differential diagnosis:** psoriasis

**Discussion:**

Syphilis is an infectious sexually transmitted disease, caused by *Treponema pallidum*, a spirochete bacterium, which solely affects human hosts. And secondary syphilis represents hematogenous dissemination with variety of skin lesions, which usually occurs at 4-10 weeks after painless chancre, the main manifestation of the primary syphilis. At this stage, a variety of skin lesion last for weeks. From common muco-cutaneous characterizations including maculopapular, scaly patches or plaques, to some atypical or uncommon presentations mimicking pseudolymphoma, pemphigus vulgaris, erythema multiforme, cutaneous vasculitis, and Reiter's syndrome have been reported.

Lues maligna, also known as malignant syphilis, is a rare nodulo-ulcerative form of secondary syphilis first described by Bazin in 1857. Most reported cases are associated with concurrent HIV infection. The disease is characterized by a prodrome of fever, headache, and myalgia followed by generalized papulopustular eruptions that rapidly evolve into necrotic ulcers covered by a dark, rupioid crust. Scalp and face are most commonly involved. Diagnostic criteria includes: (1) strongly positive RPR titer, (2) a severe Jarisch-Herxheimer reaction (JHR), (3) characteristic gross and microscopic morphology, and (4) rapid resolution of the lesions with antibiotics. Our patient met all the above except for the absence of a Jarisch-Herxheimer reaction.

Histopathological examination of skin lesions in lues maligna reveals epidermal necrosis, dense perivascular, and interstitial inflammatory cells infiltrated with lymphocytes and plasma cells, and often with involvement of vessels. Vascular changes include endothelial swelling, proliferation, hyaline thrombi, and fibrinoid deposition. However, Spirochete is rarely identified in skin biopsy specimens. In our case, vascular changes are unapparent, and immunohistochemical stain of *Treponema* show abundant spirochetes.

#### References:

1. Wei-Ting Chang, Tsung-Ting Hsieh, Yu-Hung Wu, 2014. Malignant syphilis in human immunodeficiency virus-infected patients. *Dermatologica Sinica*. 33: 21-25.
2. Ifat Zerlin Krase, Kevin Cavanaugh, Clara Curiel-Lewandrowski, 2016. A case of rupioid syphilis. *JAAD Case Reports*. 2:141-143.
3. Kejian Zhu, Qiang Zhou, Rui Han and Hao Cheng, 2012. Acute monoarthritis in a delayed diagnosis of syphilis patient with persistent rupioid psoriasis-like lesions. *BMC Infectious Diseases*. 12:338.
4. David A. Fisher, Lennig W. Chang, Denny L. Tuffanelli, 1969. Lues Maligna Presentation of a Case and a Review of the Literature. *Arch Dermatol*. 99:70 –73.
5. Ofelya Gevorgyan, Benjamin D. Owen, Arvind Balavenkataraman et al, 2017. A nodular-ulcerative form of secondary syphilis in AIDS. *Proc (Bayl Univ Med Cent)*. 30(1): 80-82.
6. Dong-Lai Ma, Sergio Vano-Galvan, 2014. Annular Secondary Syphilis. *NEJM*. 371: 2014.
- Li JH1, Yang XY, Cao J et al, 2017. Annular Erythematous Scaly Lesions on the Face: A Quiz. *Acta Derm*

**Case Number: 523**

**Slide Number: LP-917**

**Slide View: [http://www.ivp.nchu.edu.tw/slide\\_view.php?id=1537](http://www.ivp.nchu.edu.tw/slide_view.php?id=1537)**

**Shih, Chia-Wen (施洽雯), M.D., M.S.<sup>1</sup>      Chu, Chia-Hui (朱嘉惠), M.D.<sup>2</sup>**

**<sup>1</sup>Department of Pathology, Lotung Poh-Ai Hospital (羅東博愛醫院病理科)**

**<sup>2</sup>Department of Dermatology, Lotung Poh-Ai Hospital (羅東博愛醫院皮膚科)**

## **CASE HISTORY:**

**Signalment:** 78-year-old male. .

### **Clinical History:**

A 78-year-old male who has multiple, ill-defined, tender, warm and erythematous skin nodules in both legs for 2 weeks. The symptom was persistent and did not improved after oral antibiotics treatment. There was no fever, URI, dyspnea. chest tightness, GI or GU symptom. He was admitted to our ward with the impression of cellulitis. The patient has past history of ESRD (end stage renal disease) under regular H/D for 10 years. He also has past history of hypertension and under medical treatment. For the chief complaint of skin lesion, dermatologist was consulted and skin biopsy was performed. The specimen was sent to the Department of Pathology for pathologic diagnosis. The specimen submitted consisted of a small skin tissue measuring 1.0 x 0.8 x 0.6 cm, grayish-brown color and soft consistency.

### **Clinical Pathology:**

BUN: 52 mg/dL (6-20 mg/dL), Creatinine: 9.8 mg/dL (0.7-1.3 mg/dL), Glucose: 108 mg/dL (70-100 mg/dL), Na: 138 mmol/L (135-145 mmol/L), K: 4.5 mmol/L (3.5-5.1 mmol/L), Ca: 10.05 mg/dL (8.6-10.20 mg/dL), AST (GOT): 30 U/L (5-40 U/L), ALT (GPT): 24 U/L (5-40 U/L), RBC: 4.84x10<sup>6</sup>/uL (4.6-6.2x10<sup>6</sup>/uL), Hb: 11.1 gm/dL (14.0-18.0 gm/dL), Hct: 36.4 % (40-54%), Plt: 26.9 x10<sup>4</sup>/dL (15-40 x10<sup>4</sup>/dL), WBC: 7.8x10<sup>3</sup>/uL (4.5x10<sup>3</sup>-11.0x10<sup>3</sup>/uL), Lymphocyte: 13.7% (20.0-45.0%), Neutrophil: 66.8% (45.0-75.0%), Monocyte:11.4% (0.0-9.0%), Eosinophil: 6.4% (1.0-3.0%), Basophil: 1.7% (0.0-1.0%) .

## **CASE RESULT:**

### **Histopathologic Findings:**

Histopathological examination revealed a mostly lobular panniculitis with focal necrosis of adipocytes due to saponification. Fine basophilic materials within the anucleate cells ("ghost adipocytes") and areas of infiltrate of neutrophils and necrotic debris were also seen. No vasculitis was noted. Lobular panniculitis without vasculitis was diagnosed and suspected for pancreatic panniculitis. Check the pancreas was recommended.

### **Histochemistry:**

Sections of tissue specimen were subjected for histochemical evaluation. On histochemical analysis, the skin tissue was negative for GMS and PAS and Gram stains.

### **Differential diagnosis:**

1. Cold panniculitis
2. Lupus panniculitis
3. Alpha-1 antitrypsin deficiency panniculitis
4. Factitial panniculitis
5. Infectious panniculitis
6. Pancreatic panniculitis

**Diagnosis:** Pancreatic panniculitis associated with acinar cell carcinoma.

**Comments:**

Panniculitis is an inflammatory cutaneous disorder involving the adipose lobules of subcutaneous tissues. It can be associated with either inflammatory or infectious diseases, and its clinical presentation may be challenging to physicians once there are clinical similarities between different kinds of panniculitis. Panniculitis is classified histologically as mostly septal panniculitis (inflammation in the fibrous septa that surround subcutaneous fat lobules) or lobular panniculitis (inflammation of the fat). Panniculitis may have both lobular and septal inflammation (mixed panniculitis). Further classification is based on whether there is subcutaneous vasculitis, and the type of inflammation noted (neutrophils, lymphocytes, histiocytes, or granulomas).

Skin manifestations are rare complications of pancreatitis. Commonly known manifestations of acute pancreatitis include Grey Turner's sign, Cullen's sign, Fox's sign, Livedo reticularis and panniculitis. Pancreatic panniculitis (also known as "Enzymatic panniculitis," "Pancreatic fat necrosis," and "Subcutaneous fat necrosis") is a rare skin disorder, first described in 1883 by Chiari, associated with pancreatic diseases, mainly acute or chronic pancreatitis, but association with pancreatic carcinomas more frequently with acinar cell carcinoma may also occur. Pancreatic panniculitis appears in 2-3% of pancreatic diseases, mostly associated with acute or chronic pancreatitis, and it does not correlate with severity of the underlying condition.

The pathogenesis of pancreatic panniculitis remains unclear and several mechanisms have been implicated in its pathogenesis. The release of pancreatic enzymes, including lipase, amylase and trypsin, is believed to be the most significant factor.

Trypsin is thought to increase the permeability of the microcirculation and lymphatic channels, allowing lipase and amylase to enter the peripheral circulation. Within fat lobules, these enzymes promote lipolysis, adipocyte necrosis and panniculitis. This theory is supported by the presence of elevated pancreatic enzyme levels in the skin lesions, blood and urine of most patients with pancreatic panniculitis, even in the absence of detectable pancreatic disease. However, on the one hand, this skin condition is only rarely associated with pancreatic diseases and, on the other hand, there are reports of pancreatic panniculitis associated with normal serum amylase and lipase, postulating that some other factors could also determine this clinical manifestation such as vascular damage, deposition of immune complexes and release of adipokines (adipocyte-generated cytokines). Pancreatic panniculitis frequently occurs in the lower limbs, but it may also appear in the arms, chest, abdomen, buttocks and scalp. Pancreatic panniculitis typically presents with:

- Thickened, firm nodules and/or plaques on the lower limbs (usually on the shins or around the ankles).
- Erythematous, suppurative lesions producing brown, sterile, viscous liquid caused by fat liquefaction.
- Pain or tenderness.
- Ulceration and fistulation of necrotic fat to the skin.

The main histopathologic feature of pancreatic panniculitis is a mostly lobular panniculitis without vasculitis. But, in the very early stage, a septal pattern has been described, which results from enzymatic damage of the endothelial septa, allowing pancreatic enzymes to cross from blood to fat lobules resulting in coagulative necrosis of the adipocytes, which leads to pathognomonic "ghost cells". "Ghost adipocytes" are anucleate necrotic cells that have a thick wall with a fine basophilic granular material within their cytoplasm from dystrophic calcification. This is a result of saponification of fat secondary to the action of pancreatic enzymes in subcutaneous fat followed by calcium deposition. In early stages, a neutrophilic infiltrate may be found, but in the later stage, the inflammatory infiltrate is more granulomatous, "ghost adipocytes" and fat necrosis decreases, and fibrosis or lipoatrophy are seen. Fat necrosis induced by pancreatic enzymes is not always confined to subcutaneous fat and may appear elsewhere, particularly in fat around the joints, which can cause arthritis. The arthritis can affect single or multiple small and large joints and may be migratory,

intermittent or persistent, and can progress to necrosis of the cartilage or bone.

The treatment of pancreatic panniculitis should address the underlying pancreatic disease and may include surgical or endoscopic management. The cutaneous lesions usually heal once this has occurred. Topical corticosteroids, non-steroidal anti-inflammatory drugs and immunosuppressive drugs are not usually effective treatments for pancreatic panniculitis. In some patients with pancreatic cancer, administration of octreotide (a somatostatin analogue that inhibits pancreatic enzyme production) has resulted in significant improvement of pancreatic panniculitis.

The outcome for pancreatic panniculitis depends on the underlying disease process. It has a high mortality rate unless the underlying pancreatic abnormality is reversed. The prognosis is particularly poor in cases of pancreatic panniculitis related to pancreatic malignancy.

In conclusion, the pathologist's role in recognizing the different patterns and distinguishing features of panniculitis is therefore important in establishing a specific diagnosis and guiding appropriate treatment. Although pancreatic panniculitis is rare, it is important to consider in the differential diagnosis of patients presenting with lobular panniculitis without vasculitis. For panniculitis may be the first manifestation of pancreatic disease, clinicians and pathologists must have a high index of suspicion for the diagnosis of pancreatic panniculitis.

## References:

1. Chee C. Panniculitis in a patient presenting with a pancreatic tumor and polyarthritis: a case report. *J Med Case Reports*.2009;3:7331.
2. Poelman SM, Nguyen K. Pancreatic panniculitis associated with acinar cell pancreatic carcinoma. *J Cutan Med Surg*.2008;12:38-42.
3. Laureano A, Mestre T, Ricardo L, Rodrigues AM, Cardoso J. Pancreatic panniculitis --- a cutaneous manifestation of acute pancreatitis. *J Dermatol Case Rep*. 2014;8:35-7.
4. Bagazgoitia L, Alonso T, Rios-Buceta L, Ruedas A, Carrillo R, Muñoz-Zato E. Pancreatic panniculitis: an atypical clinical presentation. *Eur J Dermatol*. 2009; 19: 191-192.
5. Francombe J, Kingsnorth AN, Tunn E. Panniculitis, arthritis and pancreatitis. *Br J Rheumatol*. 1995; 34: 680-683.
6. Requena L, Sánchez-Yus E. Panniculitis. Part II. Mostly lobular panniculitis. *J Am Acad Dermatol*. 2001; 45: 325-361.
7. Lyon MJ. Metabolic panniculitis: alpha-1 antitrypsin deficiency panniculitis and pancreatic panniculitis. *Dermatol Ther*. 2010; 23: 368-374.
8. Tran KT, Hughes S, Cockerell CJ, Yancey KB. Tender erythematous plaques on the legs. Pancreatic panniculitis (PP). *Clin Exp Dermatol*. 2010; 35: 65-66.
9. Gould JW, Helms SE, Schulz SM, Stevens SR. Relapsing livedo reticularis in the setting of chronic pancreatitis. *J Am Acad Dermatol* 1998; 39:1035-1036.
10. Lankisch PG, Weber-Dany B, Maisonneuve P, Lowenfels AB. Skin signs in acute pancreatitis: frequency and implications of prognosis. *J Intern Med* 2009; 256: 299-301.
11. Guo ZZ, Huang ZY, Huang LB, Tang CW. Pancreatic panniculitis in acute pancreatitis. *J Dig Dis* 2014; 15:327-30.
12. Gorovoy IR, McSorley J, Gorovoy JB. Pancreatic panniculitis secondary to acinar cell carcinoma of the pancreas. *Cutis* 2013; 91:186-90.



**Case Number: 524**

**Slide Number: S191049**

**Slide View: [http://www.ivp.nchu.edu.tw/slide\\_view.php?id=1534](http://www.ivp.nchu.edu.tw/slide_view.php?id=1534)**

**Pei-Yi Chu (朱旆億), MD PhD**

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

### **CASE HISTORY:**

**Signalment:** A 66-year-old female with abdominal fullness

A 66-year-old female with past history of multiple site skin T cell lymphomas status post phototherapy with response around one year ago in another hospital. Recently, abdominal fullness and left neck mass enlargement were noted.

Tracking back her past history in another hospital, the pathology reports from the skin biopsy from eyebrow and right lower leg show T cell lymphoma in May, 2018. The immunohistochemical stain of tumor cells show CD3(+), CD20(-), CD4(-), CD8(+), CD25(-), TIA1(-), Ki-67(20%-30%), and EBER in situ hybridization (-). Whole body PET was performed but fail to reveal any malignancy in June, 2018. Cutaneous T cell lymphoma was diagnosed and the patient receive phototherapy. Good response was noted.

Recently, abdominal fullness and left neck mass enlargement were noted in Jan, 2019. Whole body PET with non-contrast CT was performed and showed multiple areas of intensely increased FDG uptake were noted in the left level V neck, supraclavicular, para-aortic regions, abdomen, pelvis, and bilateral inguinal regions. Malignancy was suspected. Left neck lymph node excisional biopsy was performed.

### **Gross Findings:**

The submitted specimen is composed of multiple pieces of tan soft tissue, measuring up to 1.5x1.3x0.8 cm in size, fixed in formalin. All for sections are taken.

### **CASE RESULT:**

#### **Histopathological Findings:**

Sections of the lymph node show nodal and other tissue architecture is effaced by solid, cohesive sheets of neoplastic cells. Predominant population of large cells with irregular nuclei. Some large hallmark cells showing eccentric kidney-shaped nuclei are also noted.

Immunohistochemical stain for the tumor cells show EMA(+), p40(-), S-100(-), MART-1(-), CD2(-), CD3(-), CD4(+), CD5(-), CD8(-), CD20(-), CD15(-), CD30(+), ALK(-), CD25(+), CD56(-), TIA-1(focal +), Granzyme (focal +), and in situ hybridization for EBER is negative. Immunohistochemical stain for tumor cells show Ki-67 (around 70% positive).

According to the morphologic pictures, clinical presentation and the immunohistochemical stain results, this is an anaplastic large cell lymphoma, ALK-negative.

**Pathological Diagnosis:** Anaplastic large cell lymphoma (ALCL), ALK-negative

#### **Differential diagnosis:**

1. Primary cutaneous anaplastic large cell lymphoma (Primary C-ALCL) with systemic involvement
2. Combined primary C-ALCL and systemic ALCL, ALK-negative
3. Systemic ALCL, ALK-positive
4. Peripheral T cell lymphoma (PTCL)
5. Classical Hodgkin lymphoma (CHL)
6. Poorly differentiated carcinoma
7. Poorly differentiated sarcoma

## 8. Breast implant-associated anaplastic large cell lymphoma

### **Discussion:**

According to the definition of the book “WHO Classification of Tumours of Haematopoietic and Lymphoid Tissues”, ALK-negative (ALK-) anaplastic large cell lymphoma (ALCL) is defined as CD30+ T-cell neoplasm that is not reproducibly distinguishable on morphological grounds from ALK-positive (ALK+) ALCL, but shows no ALK protein expression. But in general, tumor cells of ALK-ALCL are larger, more pleomorphic compared to ALK+ALCL. The prognosis of ALK-ALCL is also worse than ALK+ALCL under conventional treatments.

Regarding the epidemiological data, the age of peak incidence is also different from ALK-ALCL and ALK+ALCL. The age of peak incidence in ALK-ALCL is in adults, with aged 40-65 years. In ALK+ALCL, occurs most commonly in children and teenagers. Male to Female ration is around 1.5 to 1, with modest male preponderance. ALK-ALCL tends to be occurred in lymph nodes and extranodal tissues. The skin, bone and soft tissue are among the most reported occurring sites. Upon initial diagnosis, most patients are presented with advanced tumor stages, multiple lymphadenopathy and B symptoms (B symptoms refer to systemic symptoms of fever, night sweats, and weight loss which usually related with lymphomas; The presence or absence of B symptoms are reported to have clinically prognostic impacts on patients’ outcomes and tumor stages).

Microscopically, in most typical cases of ALK-ALCL, the nodal or other tissue structures are effaced or destructed by clusters of solid, cohesive sheets of large pleomorphic neoplastic cells. Multinucleated tumor cells and mitotic figures are frequently noted. The presence of hallmark cells, which are cells with eccentric, horseshoe-shaped, or kidney-shaped nuclei is one of the characteristic but not diagnostic features of ALK-ALCL or ALK+ALCL. Clinicians and pathologists should always keep in minds that needle biopsy of an enlarged lymph node may be sometimes difficult to detailed evaluate to the tumor architectures and therefore, make a definite diagnosis of ALK-ALCL.

As for the immunophenotypic features of ALK-ALCL, all tumors are strongly positive for CD30 by definition. The positive staining patterns of CD30 includes strong staining in cell membrane, Golgi regions, and cytoplasm in tumor cells. ALK staining is always negative by definition. Lack of T cell markers is frequently encountered, but clinical reports show that more than half of all cases express one or more T cell markers, including CD2, CD3, CD5, CD4, and CD8. CD4 is reported in most of the cases and CD8 positivity is rarely seen. Many cases are also reported to express the cytotoxic markers, including TIA1, Granzyme B, and perforin.

The differential diagnosis of ALK-ALCL includes primary cutaneous anaplastic large cell lymphoma (Primary C-ALCL) with systemic involvement, ALK+ALCL, peripheral T cell lymphoma (PTCL), classical Hodgkin lymphoma (CHL), and combined Primary C-ALCL and systemic ALK-ALCL, poorly differentiated carcinoma, poorly differentiated sarcoma, and breast implant-associated anaplastic large cell lymphoma.

If a single lymph node is suggested of ALK-ALCL, clinical history of skin T cell lymphoma should be thoroughly surveyed to exclude to possibility of primary C-ALCL with lymph node involvement. ALK+ALCL, by definition, is different from ALK-ALCL in ALK positivity. ALK+/- ALCL tumor cells are usually arranged in solid, cohesive and sheet pattern, which may mimic carcinoma, and absence of the above-mentioned features should be best classified as peripheral T cell lymphoma (PTCL). Another useful feature to differentiate ALK+/- ALCL from PTCL is the staining intensity and patterns of CD30. CD30 is strongly and diffusely expressed in ALK+/- ALCL, but usually variable intensities and proportions in PTCL. ALK is usually negative in PTCL. EMA is also useful for differential diagnosis from ALK+/- ALCL to PTCL. EMA is usually positive in ALK+/- ALCL and is only rarely expressed in PTCL. CD15 positivity and expression of EBV-encoded small RNA (EBER) should raise suspicious for the diagnosis of Classical Hodgkin lymphoma (CHL).

ALK-ALCL is sometimes mistaken as poorly differentiated carcinoma or poor differentiated sarcoma if immunohistochemical stain is not properly performed and misinterpreted. Breast implant-associated anaplastic large cell lymphoma is a T-cell lymphoma with morphological and

immunophenotypic features indistinguishable from those of ALK-ALCL and this rarely-encountered entity is arising primarily in association with a breast implant. The mean interval from the breast implantation to the occurrence of lymphoma is around 11 years.

In conclusion, ALK-ALCL is a rarely encountered entity. With carefully clinical history, image survey, thorough immunohistochemical stain studies, ALK-ALCL can be diagnosed from other similar disease entity.

### References:

1. Swerdlow SH, Campo E, Pileri SA, et al. (2016). The 2016 revision of the World Health Organization classification of lymphoid neoplasms. *Blood*. 127:2375-90. PMID:26980727
2. Stein H, Foss HD, Durkop H, et al. (2000). CD30(+) anaplastic large cell lymphoma: a review of its histopathologic, genetic, and clinical features. *Blood*. 96:3681-95. PMID:11090048
3. Nakamura S, Shiota M, Nakagawa A, et. (1997). Anaplastic large cell lymphoma: a distinct molecular pathologic entity: a reappraisal with special reference to p80(NPM/ALK) expression. *Am J Surg Pathol*. 21:1420-32. PMID:9414185
4. Cardoso MJ, Wyld L, Rubio IT, et. (2019). EUSOMA position regarding breast implant associated anaplastic large cell lymphoma (BIA-ALCL) and the use of textured implants. *Breast*. 44:90-93. PMID:30703669
5. Shustov A, Soma L. (2019) Anaplastic large cell lymphoma: Contemporary concepts and optimal management. *Cancer Treat Res*. 176:127-144. PMID:30596216
6. Martin JM, Wu H, Barta SK. (2018) CD30+ T-cell lymphoproliferative disorders. *Chin Clin Oncol*. pii: cco. 2018.09.06. [Epub ahead of print] PMID:30525751

**Case Number: 525**

**Slide Number: NTU0187344B**

**Slide View: [http://www.ivp.nchu.edu.tw/slide\\_view.php?id=1576](http://www.ivp.nchu.edu.tw/slide_view.php?id=1576)**

**Shih, Cheng-Hsin (施正心), DVM; Jeng, Chian-Ren (鄭謙仁), DVM, PhD<sup>1</sup>; Hui-Wen Chang (張惠雯), DVM, PhD<sup>1</sup>; Pang, Victor Fei (龐飛), DVM, PhD<sup>1</sup> \***

**<sup>1</sup>Graduate Institute of Molecular and Comparative Pathobiology, School of Veterinary Medicine, National Taiwan University (國立台灣大學獸醫專業學院分子暨比較病理生物學研究所)**

### **CASE HISTORY:**

**Signalment:** Canine, mongrel, 9-year-old, spayed female

The patient had generalized skin ulceration for 3 weeks but showed no response to the antibiotics and anti-fungal medication. Swelling of the left axillary lymph node was noted for a few days. The activity of the patient was mildly decreased but the appetite was good. Skin punch biopsy and left axillary lymph node resection were performed and submitted for pathological examination.

### **Gross Findings:**

The left axillary lymph node was moderately enlarged and showed multifocal to coalescing white foci at the cut surface. The submitted skin punch biopsies showed no remarkable changes.

### **CASE RESULT:**

#### **Histopathological Findings:**

##### **Skin punch biopsies**

The dermis of the skin sections is infiltrated by numerous individualized, uniform round neoplastic cells arranged in densely packed sheets or nests. Marked epitheliotropism of the neoplastic cells is observed in the epidermis and the adnexal structures. Multiple small and discrete aggregates of neoplastic cells, known as Pautrier's microabscesses, are noted within the lower layers of the epidermis. The neoplastic cells have a moderate amount of light eosinophilic cytoplasm with a round to polygonal, vacuolated nucleus which is 1.5-2 times the size of RBCs, containing stippled chromatin and prominent nucleoli. Moderate to severe anisokaryosis is noted and the mitotic rate is averaged 4 per HPF.

##### **Left axillary lymph node**

The normal architecture of the lymph node is effaced by numerous individualized, uniform round neoplastic cells which show similar features as those of the neoplastic cells seen in the skin punch biopsies, with marked capsular invasion. Scattered remaining lymphoid follicles with fading germinal centers are pushed peripherally against the capsule.

##### **Immunohistochemical (IHC) staining results**

The neoplastic cells in the lymph node and skin punch biopsies both show diffuse strong positivity for CD3 and negative for CD79a.

**Pathological Diagnosis:** Canine cutaneous epitheliotropic T-cell lymphoma with the involvement of left axillary lymph node

### **Differential diagnoses:**

1. Histiocytoma
2. Malignant melanoma
3. Immune-mediated dermatitis

### **Discussion:**

The present case shows the characterized microscopic features of epitheliotropic T-cell lymphoma such as medium to large neoplastic lymphocytes with invasion to the epidermis and hair

follicles. Considering the round cells and the epitheliotropic feature of the neoplasm, differential diagnoses also include the malignant melanoma and histiocytoma. The IHC staining for the T-cell marker, CD3, is needed for a definite diagnosis. Immune-mediated dermatitis such as erythema multiforme and lupus erythematosus should also be taken into consideration, but the characteristic features such as keratinocytes apoptosis with lymphocyte satellitosis and basal cell vacuolar degeneration are absent in the current case.

Cutaneous epitheliotropic T-cell lymphoma (CETL) in the dog is an uncommon and often fatal neoplastic condition with unknown etiology. Using the criteria described in humans, CETL in the dog can be divided into three subforms, including mycosis fungoides (MF), pagetoid reticulosis (PR) and Se'zary syndrome (SS). In canine, MF is the most common form and the affected dogs clinically show generalized erythema, scaling, and pruritus in the skin or mucous membrane. Humans with MF tend to progress from the patch or plaque stage to more generalized exfoliative erythroderma and tumor development. But in dogs with MF, the variety of lesions can present at any time during the course of disease development and each lesion type does not represent a progressive disease stage. Dogs with PR present similar clinical signs as those with MF, but have different histological features. The neoplastic infiltrate in dogs with PR confines above the basement membrane of the epidermis and adnexal structures, whereas in those with MF, the neoplastic lymphocytes extend into deeper dermis and infiltrate adnexa, as that seen the present case. Se'zary syndrome is a progressive form of MF during which patients become leukemic and the neoplastic lymphocytes are found in the peripheral blood. The present case showed skin lesion at first and then the involvement of the axillary lymph node, which indicates that the progression of the disease has from multicentric skin lesions to regional lymph node, which may even involve the visceral organs in the future. The clinical outcome of the patient is not known, but the prognosis for canine CETL is usually poor.

Since epitheliotropism cannot be identified by cytology, final diagnosis of CETL needs histopathological exam. The neoplastic T cells must demonstrate tropism for the epidermal or mucosal epithelium and adnexal structures along with the frequently observed intraepidermal aggregates of neoplastic T lymphocytes, so called Pautrier's microabscesses. It is known that 90% of human CETLs are CD4<sup>+</sup>/CD8<sup>-</sup> (T helper subtype), but 90% of canine CETLs are CD4<sup>-</sup>/CD8<sup>+</sup> (cytotoxic subtype). The canine form of CETL is most similar to the human epidermotropic CD8<sup>+</sup> cytotoxic T-cell lymphoma. Further investigation of the immunophenotype and the pathogenesis of canine CETL may allow for the development of more effective targeted therapies and an improved prognosis.

## References:

1. Fontaine, J., Bovens, C., Bettenay, S., & Mueller, R. S. (2009). Canine cutaneous epitheliotropic T-cell lymphoma: a review. *Vet Comp Oncol*, 7(1), 1-14.
2. Fontaine, J., Heimann, M., & Day, M. J. (2010). Canine cutaneous epitheliotropic T-cell lymphoma: a review of 30 cases. *Vet Dermatol*, 21(3), 267-275.
3. Mineshige, T., Kawarai, S., Yauchi, T., Segawa, K., Neo, S., Sugahara, G., Shiota, K. (2016). Cutaneous epitheliotropic T-cell lymphoma with systemic dissemination in a dog. *J Vet Diagn Invest*, 28(3), 327-331.
4. Rook, K. A. (2018). Canine and feline cutaneous epitheliotropic lymphoma and cutaneous Lymphocytosis. *Vet Clin North Am Small Anim Pract*, 49(1), 67-81.
5. Rutgen, B. C., Flickinger, I., Wolfesberger, B., Litschauer, B., Fuchs-Baumgartinger, A., Hammer, S. E., Schwendenwein, I. (2016). Cutaneous T-cell lymphoma - Sezary syndrome in a Boxer. *Vet Clin Pathol*, 45(1), 172-178.

**Case Number: 526**

**Slide Number: NTU2017-256413**

**Slide View: [http://www.ivp.nchu.edu.tw/slide\\_view.php?id=1538](http://www.ivp.nchu.edu.tw/slide_view.php?id=1538)**

**Li, Wen-Ta (李文達), DVM, PhD<sup>1,2</sup>, Chang, Hui-Wen (張惠雯), DVM, PhD; Pang, Victor, Fei (龐飛), DVM, PhD; Wang, Fun-In (王汎瑩), DVM, PhD; Liu, Chen-Hsuan (劉振軒), DVM, PhD; Jeng, Chian-Ren (鄭謙仁), DVM, PhD;**

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

### **CASE HISTORY:**

#### **Signalment & History:**

A free-ranging wild adult female Taiwanese japalure (*Japalura swinhonis*) was found in the cage of captive elongated tortoises (*Indotestudo elongata*) at the zoo in October of 2017. The lizard was lethargic, laid down on the floor, and then was found dead. The lizard was free-ranging wild animal so no detailed history would be available. The carcass was collected for pathological examination.

#### **Gross Findings:**

Necropsy revealed scattered, yellow to brown, raised encrusted skin nodules of 0.5 to 1 cm in diameter throughout the body surface. Below the crust, the underlying skin was sunken and/or ulcerative with the presence of caseous material.

### **CASE RESULT:**

#### **Histopathological Findings:**

Microscopically, the dermis was replaced by abundant serocellular crusts and full thickness ulceration, which were overlain with thick layers of keratin, abundant karyorrhectic debris and heterophils in the subcorneal region. In the deep region of the lesion, the normal architecture of the epidermis was disrupted by infiltrations of heterophils and mixed mononuclear inflammatory cells with scattered iridophores and melanophores. The inflammation also extended to the underlying dermis and muscle. Abundant branching, gram-positive filamentous bacteria were found throughout the lesions.

#### **Morphological Diagnosis:**

Dermatitis, hyperkeratotic, heterophilic, and granulomatous, severe, subacute to chronic, multifocal, with intralesional gram-positive filamentous bacteria compatible with *A. chelonae*, skin nodules

#### **Differential diagnosis:**

The differential diagnoses based on gross findings (multifocal ulcerations and crusts) include blisters and dermatitis caused by foreign bodies, bacteria and fungi. Blisters are usually associated with high relative humidity, thermal/ chemical burns, and migrating nematodes. Blisters are initially characterized by raised fluid containing skin lesions, but the content will be cloudy or caseous due to secondary infection. Foreign-body dermatitis is associated with exposure to fiberglass (from cage) and talc (from gloves). It usually causes multifocal chronic inflammations on skin. Bacterial dermatitis can be induced by traumatic injuries or environmental factors, and a variety of bacterial species, such as *Aeromonas* spp. and *Pseudomonas* spp. *Staphylococcus* spp. and *Morganella* spp., may be involved. Fungal dermatitis in reptiles is usually related to a compromised host immunity, and several fungal species have been reported, including *Aspergillus* spp., *Basidiobolus* spp.,

*Geotrichum* spp., *Mucor* spp., *Saprolegnia* spp., *Candida* spp., and *Chrysosporium anamorph Nannizziopsis vriesii*. The lesions of bacterial and fungal dermatitis are similar, including skin discoloration, erosion, ulceration, and abscess formation.

#### **Additional laboratory testing:**

Impression smear preparations from these nodules were stained with Liu's stain and evaluated microscopically. There were numerous branching filaments composed of rows of blue to purple, coccoid to short rod-shaped organisms. DNA was extracted from the nodules using a commercial kit according to the manufacturer's instructions. A primer set targeting the 16s rRNA gene of *Dermatophilus* spp. (DC-F: ACATGCAAGTCGAACGATGA and DC-R: ACGCTCGCACCCTACGTATT) was used with an expected product size of 500 bp. The PCR reaction was carried out with commercial reagents. The PCR product was sequenced directly and the result was 100% match with the 16s rRNA gene of *Austwickia chelonae* (basonym *Dermatophilus chelonae*).

#### **Final Diagnosis:**

Dermatophilosis caused by *Austwickia chelonae* (basonym *Dermatophilus chelonae*) in a free-ranging wild Taiwanese japalure

#### **Discussion:**

Dermatophilosis is a contagious zoonotic skin infection due to *Dermatophilus* spp., and a variety of animal species, including humans, domestic animals (especially ruminant), and reptiles, can be infected by *Dermatophilus* spp.<sup>5</sup> In 1995, a new species, *D. chelonae*, was isolated and identified from chelonids in Australia.<sup>6</sup> *D. chelonae* grew faster at lower temperatures than did *D. congolensis* and had a lower infectivity/pathogenicity for mammals. Therefore, it may have adapted to poikilotherms such as reptiles, causing mainly skin lesions.<sup>6</sup> *D. chelonae* was then reassigned to a new genus of the family Dermatophilaceae with the name *Austwickia chelonae* on the basis of phylogenetic and chemotaxonomic analyses.<sup>7</sup>

In lizards, *A. chelonae* usually causes multiple raised encrusted skin lesions throughout the body surface, and the characteristic histopathological lesion is proliferative/hyperkeratotic and heterophilic/granulomatous epidermatitis to dermatitis.<sup>8,9</sup> In addition, the skin lesions always contain abundant gram-positive filamentous bacteria.<sup>8,9</sup> Although the morphological features of the skin lesion and bacteria are characteristic, further identification by 16S rRNA sequence analysis is necessary to identify the species of the causative agent in dermatophilosis cases.<sup>8</sup>

The majority of dermatophilosis cases in reptiles are reported in Australia, and most occur in captive or farmed animals.<sup>9-13</sup> Only sporadic cases in reptiles have been reported in Japan, Africa, and the United States.<sup>8,11,14,15</sup> In Taiwan, although cases of dermatophilosis caused by *D. congolensis* have been reported in various ruminant animals, such as cattle and sheep, no recorded cases of dermatophilosis in reptiles caused by *A. chelonae* have been reported to date. Furthermore, to the best of the author's knowledge, no dermatophilosis cases in free-ranging wild reptiles have been reported previously. Therefore, this case raises serious concerns about the geographic distribution of *A. chelonae* and the possibility of endemic *A. chelonae* in Taiwan. The Taiwanese japalure (*Japalura swinhonis*) is an endemic species in Taiwan and usually brumates from October to April.<sup>16</sup> Thus, the absence of visceral fat bodies (for the purpose of brumation) is evidence of poor body condition. Since dermatophilosis is usually secondary to another disease process (such as viral infection),<sup>8</sup> the skin lesions found in the lizard are considered secondary to unknown etiologies. However, no evidence of another infectious process is found under histopathological examination, and thus it is speculated that the immunity of the current lizard may be compromised by the poor body condition. Because the lizard was free-ranging wild animal, the underlying cause of poor body condition is still undetermined. During the period of manuscript submission, no lesions caused by

dermatophilosis have been found in the captive elongated tortoises at the zoo. Further investigation on the ecological impacts caused by *A. chelonae* is warranted.

## References:

1. Oladunni FS, Oyekunle MA, Talabi AO, et al. Phylogenetic analysis of *Dermatophilus congolensis* isolated from naturally infected cattle in Abeokuta and Ilorin, Nigeria. *Vet Med Sci*. 2016;2:136-142.
2. Han W, Chen Y, Wang J, et al. Establishment of PCR for detection of dermatophilosis in sheep. *Chinese Journal of Veterinary Science*. 2009;29:49-51.
3. Cooper JE. Dermatology. In: *Reptile Medicine and Surgery*. 2nd ed. St Louis: W.B. Saunders, 2006;196-216.
4. Mitchell MA, Walden MR. *Chrysosporium anamorph Nannizziopsis vriesii*: an emerging fungal pathogen of captive and wild reptiles. *Vet Clin North Am Exot Anim Pract* 2013;16:659-668.
5. Mauldin EA, Peters-Kennedy J. Integumentary System. In: Maxie MG, ed. *Jubb, Kennedy, and Palmer's Pathology of Domestic Animals*. 6th ed. St. Louis: Elsevier, 2016;509-736.
6. Masters AM, Ellis TM, Carson JM, et al. *Dermatophilus chelonae* sp. nov., isolated from chelonids in Australia. *Int J Syst Bacteriol*. 1995;45:50-56.
7. Hamada M, Iino T, Iwami T, et al. *Mobilicoccus pelagius* gen. nov., sp. nov. and *Piscicoccus intestinalis* gen. nov., sp. nov., two new members of the family Dermatophilaceae, and reclassification of *Dermatophilus chelonae* (Masters et al. 1995) as *Austwickia chelonae* gen. nov., comb. nov. *J Gen Appl Microbiol*. 2010;56:427-436.
8. Tamukai K, Tokiwa T, Kobayashi H, Une Y. Ranavirus in an outbreak of dermatophilosis in captive inland bearded dragons (*Pogona vitticeps*). *Vet Dermatol*. 2016;27:99-105e128.
9. Simmons GC, Sullivan ND, Green PE. Dermatophilosis in a lizard (*Amphibolurus barbatus*). *Aust Vet J*. 1972;48:465-466.
10. Huang WS. Ecology and reproductive patterns of the agamid lizard *Japalura swinhonis* on an east Asian island, with comments on the small clutch sizes of island lizards. *Zoolog Sci*. 2007;24:181-188.
11. Buenviaje GN, Millan JM, Summers PM, et al. Use of copper sulphate for the treatment of dermatophilosis ('brown spot' disease) in farmed crocodiles. *Aust Vet J*. 2004;82:577-578.
12. Buenviaje GN, Ladds PW, Martin Y. Pathology of skin diseases in crocodiles. *Aust Vet J*. 1998;76:357-363.
13. Montali RJ, Smith EE, Davenport M, et al. Dermatophilosis in Australian bearded lizards. *J Am Vet Med Assoc*. 1975;167:553-555.
14. Bemis DA, Patton CS, Ramsay EC. Dermatophilosis in captive tortoises. *J Vet Diagn Invest*. 1999;11:553-557.
15. Wellehan JF, Turenne C, Heard DJ, Detrisac CJ, O'Kelley JJ. *Dermatophilus chelonae* in a king cobra (*Ophiophagus hannah*). *J Zoo Wildl Med*. 2004;35:553-556.
16. Norval G, Mao JJ, Slater K. Notes on the reproduction of the Swinhoe's tree lizard, *Japalura swinhonis* Günther, 1864, (Squamata: Agamidae) from southwestern Taiwan. *Herpetology Notes*. 2011;4:319-324.



Case Number: 527

Slide No.: CO17-411

Slide view: [http://www.ivp.nchu.edu.tw/slide\\_view.php?id=1536](http://www.ivp.nchu.edu.tw/slide_view.php?id=1536)

Yan-Xiu Lin(林妍秀), DVM, MS<sup>1</sup>, Yun-Chieh Tuan (段雲傑), DVM, MS<sup>1</sup>, Fang-Yi Tsai(蔡芳宜), DVM, MS<sup>2</sup>, Yi-Hui Su(蘇滄慧), DVM, MS<sup>1</sup>, Ji-Hang Yin(殷際航), DVM, MS<sup>2</sup>, Ying-Chen Wu(吳迎晨), DVM, PhD<sup>2</sup>, Hue-Ying, Chiou (邱慧英), DVM, PhD<sup>1</sup>, Jiunn-Wang Liao(廖俊旺), DVM, PhD<sup>2</sup>

<sup>1</sup>Graduate Institute of Veterinary Pathobiology, National Chung Hsing University (國立中興大學獸醫病理生物研究所)

<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)

### **CASE HISTORY:**

**Signalment:** 14-week old, male, NOG mice

NOG mice, which were used for a tumor xenograft study, showed multiple pale tan scale-like crusts on the shaved area of the back. Five infected mice in one cage were observed at first (morbidity was 9.8%). However, 3 cages of mice also revealed similar symptoms two months later.

### **Gross Findings:**

#### First case:

Multifocal tan to brown scales were found on the skin of the back and measured approximately 0.1 x 0.2 x 0.1 cm in size.

#### Second case:

Red to tan plaques about 2 to 3 cm with slight scaling were observed.

### **CASE RESULT:**

### **Histopathological Findings:**

Histological findings in the affected haired skin consisted of multifocal, moderate chronic hyperkeratosis with moderate acanthosis. In addition, basophilic bacterial clumps were found in the keratin layer.

### **Pathological Diagnosis:**

Hyperkeratosis, multifocal, moderate, chronic, with acanthosis and bacterial clumps, haired skin

### **Differential diagnosis:**

4. Scaly skin disease caused by *Corynebacterium bovis* infection
5. Hyperkeratotic dermatitis by other bacteria or parasite infection
6. Hyperkeratotic skin conditions associated with low environmental humidity

### **Microbial Examination:**

Impression smears from scrapings done in the lesion areas stained with Diff-Quik revealed gram positive, club-shaped and V-shaped arrangements of rod bacteria. Bacteria isolated from the scrapings of the scaled areas was identified through 16S rRNA gene sequencing and had 98% similarity with *Corynebacterium mastitidis*. Furthermore, same bacteria were cultured from hair found in the razor that was used for shaving the mice. According to rep-PCR subtyping, all *C. mastitidis* isolated in this case were the same subspecies.

### **Final diagnosis:**

Coryneform hyperkeratosis in NOG mice

## Discussion:

In this case, multiple pale tan scale-like crusts on the shaved area of the skin of the back were found in male NOG mice, a new generation of severely immunodeficient mice (SCID). Histological findings in the affected haired skin consisted of multifocal, moderate chronic hyperkeratosis with moderate acanthosis. The differential diagnosis in this case includes scaly skin disease (which has an etiology consistent with *Corynebacterium bovis* (*C. bovis*), and is particularly frequent in experimental mice), bacterial infection, such as *Staphylococcus xylosum*, *Proteus* sp., or other opportunistic bacteria, and low ambient humidity. Bacteria isolated from scrapings obtained from the scaled areas were identified and had 98% similarity with *C. mastitidis*. Therefore, the final diagnosis in this case was Coryneform hyperkeratosis.

Coryneform hyperkeratosis, also referred to as scaly skin disease or hyperkeratotic dermatitis, has an etiology consistent with *Corynebacterium bovis*. It usually occurs in outbreaks among nude mice, but has also been reported in furred immunodeficient mice and hairless immunocompetent mice. Affected animals develop small yellow-white flakes on the skin of the dorsum and may lose weight. Microscopically, skin lesions are characterized by marked acanthosis, orthokeratotic hyperkeratosis, and sparse granulocytic and mononuclear cell infiltrate in the underlying dermis. Mice with symptoms are considered unsuitable for experiments because the infection may affect research by decreasing tumor growth, interfering with xenografts, etc. Although lesions tend to resolve spontaneously and disappear within 7 to 10 days, recovered mice will become carriers and spread the bacteria to naive mice by shedding of the infected keratin flakes. In conclusion, *C. bovis* infection tends to be persistent with high morbidity and low mortality rates.

The mechanism of lesions caused by *C. bovis* is unclear. Due to its lipophilic nature, *C. bovis* is mainly located in the outermost keratin layer, which is continuously sloughed as epidermal cells move from the basal layers of the skin to the outer surface over 8 to 9.5 days, consistent with the disappearance of hyperkeratosis in 7 to 10 days. However, acanthosis persists longer, indicating that the host's defense mechanisms are ineffective at clearing the pathogen.

Eradication of *C. bovis* is difficult. It is thought that prolonged antibiotic treatment can result in successful eradication of *C. bovis*. However, it may also be ineffective due to inadequate antibiotic concentration in the stratum corneum, as well as the possibility of re-exposure during treatment due to environmental persistence. The most effective methods for bacteria eradication are colony depopulation and extensive environmental decontamination with strict biosecurity measures.

In the present case, the gross lesions were not completely characteristic of coryneform hyperkeratosis, but the histological findings were similar. The causative agent was identified as *Corynebacterium mastitidis* by using 16S rRNA sequence analysis. *C. mastitidis* was first isolated from the milk of a sheep with subclinical mastitis and was subsequently identified as part of the normal microbiota of the ocular surface in humans. It has also been identified as an ocular commensal in C57BL/6 mice that drives the release of antimicrobials into the tears to protect the eye from pathogens. To the best of our knowledge, only one case of *C. mastitidis* infection in immunocompetent mice has been previously reported, which caused suppurative adenitis of preputial glands. It was suspected that a different infection site or the immune status of the mice will lead to a distinct type of lesion.

## References:

1. 黃祥博、柯世禎、陳文彬、陳惠文、蔡伊婷。無胸腺裸鼠之表皮角化過度及增生性皮膚炎。行政院農業委員會家畜衛生試驗所。104 年度組織病理研討會專輯。100-102 頁，2015。
2. Burr HN, Wolf FR, Lipman NS. *Corynebacterium bovis*: epizootiologic features and environmental contamination in an enzootically infected rodent room. *J Am Assoc Lab Anim Sci* 51: 189-198, 2012
3. Dole VS, Henderson KS, Fister RD, Pietrowski MT, Maldonado G, Clifford CB. Pathogenicity and genetic variation of 3 strains of *Corynebacterium bovis* in immunodeficient mice. *J Am Assoc Lab Anim Sci* 52: 458-466, 2013

4. Fernandez-Garayzabal JF, Collins MD, Hutson RA, Fernandez E, Monasterio R, Marco J, Dominguez L. *Corynebacterium mastitidis* sp. nov., isolated from milk of sheep with subclinical mastitis. *Int J Syst Bacteriol* 47:1082-1085, 1997
5. Kim TH, Kim DS, Han JH, Chang SN, Kim KS, Seok SH, Kim DJ, Park JH, Park JH. Detection of *Corynebacterium bovis* infection in athymic nude mice from a research animal facility in Korea. *J Vet Sci* 15: 583-586, 2014
6. Radaelli E, Manarolla G, Pisoni G, Balloi A, Aresu L, Sparaciari P, Maggi A, Caniatti M, Scanziani E. Suppurative adenitis of preputial glands associated with *Corynebacterium mastitidis* infection in mice. *J Am Assoc Lab Anim Sci* 49: 69-74, 2010
7. Russo M, Invernizzi A, Gobbi A, Radaelli E. Diffuse Scaling Dermatitis in an Athymic Nude Mouse. *Vet Pathol* 50:722-6, 2013
8. Scanziani E, Gobbi A, Crippa L, Giusti AM, Pesenti E, Cavalletti E, Luini M. Hyperkeratosis-associated coryneform infection in severe combined immunodeficient mice. *Lab Anim* 32:330-336, 1998
9. St Leger AJ, Desai JV, Drummond RA, Kugadas A, Almaghrabi F, Silver P, Raychaudhuri K, Gadjeva M, Iwakura Y, Lionakis MS, Caspi RR. An Ocular Commensal Protects against Corneal Infection by Driving an Interleukin-17 Response from Mucosal  $\gamma\delta$  T Cells. *Immunity* 47:148-158, 2017

**Case Number: 528**

**Slide No.: 441927, 432537**

**Slide view: [http://www.ivp.nchu.edu.tw/slide\\_view.php?id=1575](http://www.ivp.nchu.edu.tw/slide_view.php?id=1575)**

**[http://www.ivp.nchu.edu.tw/slide\\_view.php?id=1574](http://www.ivp.nchu.edu.tw/slide_view.php?id=1574)**

蘇雪妍, 病理科 住院醫師, 天主教耕莘醫院

陳燕麟, 病理科 主治醫師, 天主教耕莘醫院

**Case report:**

Periocular basal cell carcinoma with sebaceous differentiation

**Clinical history:**

A 62 years old man had history of basal cell carcinoma(BCC) of left eye lid status post Moh's micrographic surgery in 2013/5. In 2017/10 he suffered recurrent left eye lid mass with progressive enlargement. So he came to our ophthalmology OPD and undergone excision. Pathology report was BCC with sebaceous differentiation with margin involvement. Aldara (imiquimod) cream application and OPD follow up was done. In 2018/5 erythematous lesion over left eye lid appeared. Orbital MRI was done and a 0.8cm well-defined periorbital nodular lesion at superior lateral aspect of the left eyeball, presenting with isointensity on T1WI and T2WI and contrast enhancement was seen and excisional biopsy was done.

**Gross examination:**

The specimen submitted consisted of 2 small pieces of skin tissue measuring in total 1.2 x 1.0 x 0.6 cm in size. There is one lesion measuring 0.7 x 0.5 cm.

**Microscopic findings:**

Microscopically, the sections show a picture of infiltrating carcinoma with islands and cords of tumor cells. Sebaceous differentiation with multivacuolated mature sebocytes are present. Tumor cells are close to the resection margin(less than 1 mm in distance).

**Differential diagnosis:**

- Basal cell carcinoma with sebaceous differentiation
- Sebaceous adenoma
- Sebaceoma
- Sebaceous carcinoma

**Immunostains:**

CK: (+)

mCEA: (-)

EMA: focal (+)

HMB45: (-)

BER-EP4: (+)

**Diagnosis:**

Basal cell carcinoma with sebaceous differentiation

**Discussion:**

Basal cell carcinoma (BCC) represents 90% of all malignant neoplasms arising in the periocular region, followed, sebaceous carcinoma, which makes up 5% of eyelid malignancies. Basal cell carcinoma (BCC) is a carcinoma derived from basal cells of the interfollicular epidermis and/or hair follicle, constituting approximately 70% of all keratinocyte tumors. It commonly affects the head and neck region. BCC with sebaceous differentiation is a rare histopathological variant.

Histopathological examination of a BCC with sebaceous differentiation usually reveals poorly circumscribed neoplasm invading the deep dermis composed of columnar basaloid cells having slightly elongated nuclei aligned in a palisade at the periphery, retraction clefts between the stroma and tumor aggregates, and sebaceous duct-like structures. Vacuolated cells, with foamy, bubbly cytoplasm and scalloped or starry nuclei, suggestive of sebocytes are scattered within the tumor masses. These vacuolated cells are immunohistochemically positive for epithelial membrane antigen (EMA). BCC with sebaceous differentiation usually does not have an adverse prognosis.

The criteria for the diagnosis of this tumor are variably defined by various authors. BCC with sebaceous differentiation is diagnosed by basaloid cell component which occupies greater than 50% of the transverse diameter of tumor lobules that typically manifest a rounded morphology with areas of slit-like retraction and accompanied by mitoses and apoptotic debris. In contrast, sebaceous adenoma is characterized by a lining of basaloid cells less than 50% of the diameter of the neoplastic lobule. Sebaceoma is benign sebaceous tumour with a clinical presentation virtually identical to that of sebaceous adenoma with extensive (>50%) basaloid cell content.

Sebaceous carcinoma commonly arises from the meibomian glands of the eyelids and other sebaceous glands of the ocular adnexa. It is an aggressive neoplasm ranging from local invasion and recurrence to metastasis to area lymph nodes and distant organs. Several markers are differentially expressed in periocular sebaceous carcinoma (PSC) compared with lesions in the differential diagnosis. The 3 most typical immunophenotypes are the following: periocular sebaceous carcinoma is positive for EMA, AR, and adipophilin but negative for Ber-Ep4. BCC is predominantly negative for EMA and adipophilin but positive for Ber-Ep4. BCC with sebaceous differentiation may be seen in Muir-Torre syndrome, and often had significant histological overlap with other sebaceous neoplasm.

Mohs micrographic surgery, cryosurgery, electrodesiccation and curettage, topical application of imiquimod or fluorouracil, photodynamic therapy, or radiation therapy are treatment options for BCC. Of these treatments, surgical excision and Mohs surgery are the most commonly used.

Periocular sebaceous carcinoma was associated with a poor prognosis and a mortality rate that reached 30% and BCC with sebaceous differentiation usually does not have an adverse prognosis. It is important to differentiate BCC with sebaceous differentiation from the sebaceous carcinoma. By studying this case, we would better understand the BCC with sebaceous differentiation and the differential diagnoses.

## References

1. Basal cell carcinoma: biology, morphology and clinical implications. Crowson AN. *Mod Pathol*. 2006 Feb;19 Suppl 2:S127-47.
2. Basal Cell Carcinoma with Sebaceous Differentiation. Sushrut Save, Swagata Tambe, and Chitra Nayak. *Indian Dermatol Online J*. 2018 Jul-Aug; 9(4): 273–275.
3. Sebaceous Carcinoma of the Eyelid. Prieto-Granada C, Rodriguez-Waitkus P. *Cancer Control*. 2016 Apr;23(2):126-32.
4. Sebaceous gland carcinoma of the ocular adnexa - variability in clinical and histological appearance with analysis of immunohistochemical staining patterns. Schmitz EJ, Herwig-Carl MC, Holz FG, Loeffler KU. *Graefes Arch Clin Exp Ophthalmol*. 2017 Nov;255(11):2277-2285.
5. Sebaceous neoplasia and Torre-Muir syndrome. Lazar AJ, Lyle S, Calonje E. *Curr Diagn Pathol*. 2007 Aug;13(4):301-319

# 中華民國比較病理學會章程

## 第一章 總則

- 第一條 本會定名為中華民國比較病理學會，英文名稱為 Chinese Society of Comparative Pathology (CSCP) (以下簡稱本會)。
- 第二條 本會依內政部人民團體法設立，為非營利目的之社會團體，以結合人類醫學與動物醫學資源，提倡比較病理學之研究與發展，交換研究教學心得，聯絡會員友誼及促進國際間比較醫學之交流為宗旨。
- 第三條 本會以全國行政區域為組織區域，會址設於主管機關所在地區，並得報經主管機關核准設主分支機構。前項分支機構組織簡則由理事會擬訂，報請主管機關核准後行之。會址及分支機構之地址於設置及變更時應報請主管機關核備。
- 第四條 本會之任務如左：  
一、 提倡比較病理學之研究與發展。  
二、 舉辦學術演講會、研討會及相關訓練課程。  
三、 建立國內比較醫學相關資料庫。  
四、 發行比較病理學相關刊物。  
五、 促進國內、外比較醫學之交流。  
六、 其他有關比較病理學術發展之事項。
- 第五條 本會之主管機關為內政部。目的事業主管機關依章程所訂之宗旨與任務，主要為行政院衛生署及農業委員會，其目的事業應受各該事業主管機關之指導與監督。

## 第二章 會員

- 第六條 本會會員申請資格如下：  
一、 一般會員：贊同本會宗旨，年滿二十歲，具有國內外大專院校(或同等學歷)生命科學及其它相關科系畢業資格或高職畢業從事生命科學相關工作滿兩年者。  
二、 學生會員：贊同本會宗旨，在國內、外大專院校生命科學或其它相關科系肄業者(檢附學生身份證明)。  
三、 贊助會員：贊助本會工作之團體或個人。  
四、 榮譽會員：凡對比較病理學術或會務之推展有特殊貢獻，經理事會提名並經會員大會通過者。  
前項一、二、三項會員申請時應填具入會申請書，經一般會員二人之推薦，經理事會通過，並繳納會費。學生會員身份改變成一般會員時，得再補繳一般會員入會費之差額後，即成為一般會員，榮譽會員免繳入會費與常年會費。
- 第七條 一般會員有表決權、選舉權、被選舉與罷免權，每一會員為一權。贊助會員、學生會員與榮譽會員無前項權利。
- 第八條 會員有遵守本會章程、決議及繳納會費之義務。
- 第九條 會員有違反法令、章程或不遵守會員大會決議時，得經理事會決議，予以警告或停權處分，其危害團體情節重大者，得經會員大會決議予以除名。
- 第十條 會員喪失會員資格或經會員大會決議除名者，即為出會。
- 第十一條 會員得以書面敘明理由向本會聲明退會。但入會費與當年所應繳納的常年會費不得申請退費。

### 第三章 組織及職員

第十二條 本會以會員大會為最高權力機構。

第十三條 會員大會之職權如下：

- 一、 訂定與變更章程。
- 二、 選舉及罷免理事、監事。
- 三、 議決入會費、常年會費、事業費及會員捐款之方式。
- 四、 議決年度工作計畫、報告、預算及決算。
- 五、 議決會員之除名處置。
- 六、 議決財產之處分。
- 七、 議決本會之解散。
- 八、 議決與會員權利義務有關之其他重大事項。

前項第八款重大事項之範圍由理事會訂定之。

第十四條 本會置理事十五人，監事五人，由會員選舉之，分別成立理事會、監事會。選舉前項理事、監事時，依計票情形得同時選出候補理事五人，候補監事一人，遇理事或監事出缺時，分別依序遞補之。

本屆理事會得提出下屆理事及監事候選人參考名單。

第十五條 理事會之職權如下：

- 一、 審定會員之資格。
- 二、 選舉及罷免常務理事及理事長。
- 三、 議決理事、常務理事及理事長之辭職。
- 四、 聘免工作人員。
- 五、 擬訂年度工作計畫、報告、預算及決算。
- 六、 其他應執行事項。

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

理事長對內綜理監督會議，對外代表本會，並擔任會員大會、理事會主席。

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

理事長或常務理事出缺時，應於一個月內補選之。

第十七條 監事會之職權如左：

- 一、 監察理事會工作之執行。
- 二、 審核年度決算。
- 三、 選舉及罷免常務監事。
- 四、 議決監事及常務監事之辭職。
- 五、 其他應監察事項。

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

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

第十九條 理事、監事均為無給職，任期三年，連選得連任。理事長之

- 連任以一次為限。
- 第二十二條 理事、監事有下列情事之一者，應即解任：  
一、喪失會員資格。  
二、因故辭職經理事會或監事會決議通過者。  
三、被罷免或撤免者。  
四、受停權處分期間逾任期二分之一者。
- 第二十一條 本會置秘書長一人，承理事長之命處理本會事務，令置其他工作人員若干人，由理事長提名經理事會通過後聘免之，並報主管機關備查。但秘書長之解聘應先報主管機關核備。前項工作人員不得由選任之職員（理監事）擔任。工作人員權責及分層負責事項由理事會令另定之。
- 第二十二條 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 第八屆理監事簡歷冊

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

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

## 107 年度工作報告

### 一、召開會員大會、理監事會議、邀請國內專家學者進行學術演講

#### 1. 會員大會

中華民國比較病理學會第八屆第四次會員大會訂於 107 年 4 月 15 日於衛生福利部台中醫院醫療大樓 12 樓大禮堂。

#### 2. 第八屆理監事會議

- i. 第八屆第四次理監事會議於 107 年 4 月 15 日於衛生福利部台中醫院召開。
- ii. 第八屆第五次理監事會議於 107 年 8 月 12 日於醫療財團法人羅許基金會羅東博愛醫院召開。
- iii. 第八屆第六次理監事會議於 107 年 12 月 9 日於國立臺灣大學獸醫專業學院召開。

#### 3. 舉辦學術研討會

- i. 第 72 次比較病理研討會於 107 年 4 月 15 日於衛生福利部台中醫院召開。
- ii. 第 73 次比較病理研討會於 107 年 8 月 12 日於醫療財團法人羅許基金會羅東博愛醫院召開。
- iii. 第 74 次比較病理研討會於 107 年 12 月 9 日於國立臺灣大學獸醫專業學院召開。

### 三、舉辦學術演講

1. 第 72 次比較病理研討會邀請黃威翔博士，Topic: 動物法醫病理學的過去、現在及未來
2. 第 73 次比較病理研討會邀請蘇桂英醫師，題目: IgG4-related disease 之診斷治療新進展
3. 第 74 次比較病理研討會邀請韓紹民醫師演講，講題為 The Application Multicolor Flow Cytometric Immunophenotyping in Hematologic Malignancies – An Overview of Euroflow System

### 四、舉辦學術病理切片病例討論

1. 於第 72 次比較病理研討會共有 6 個單位提供 7 個病例會員討論。
2. 於第 73 次比較病理研討會共 6 個單位提供 7 個病例供會員討論。
3. 於第 74 次比較病理研討會共有 4 個單位提供 10 個病例供會員討論。

### 五、架設學會網站

提供 72、73 及 74 次比較病理研討會活動花絮照片，於學會網站地

址：<http://www.ivp.nchu.edu.tw/cscp/>

六、完成 72、73 及 74 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

### 108 年度工作計劃

#### 一、會務

1. 徵求會員  
持續進行學會推廣及會員招募，擴大會員陣容，
2. 整理會籍與清查會費
  - i. 更新整理會籍資料，並製作會員通訊錄
  - ii. 清查會員繳費狀況，進行催繳，缺繳三年以上徹底實行停權
3. 召開會議  
召開會員大會一次，審查 108 年度工作報告與經費收支狀況，研議 108 年度之工作計劃及預算
4. 學術活動  
持續辦理三次研討會，並邀請國內外專家學者做學術性的演講

#### 二、業務

1. 繳納會費
2. 文書處理  
整理與更新會員信箱，刪除無效信箱
3. 病例資料處理  
掃描研討會議病例切片，供會員研究教學使用
4. 研討會活動照片、會員狀態及網頁維護更新
5. 進行獸醫再教育學分申請及協助會員學分認證

中華民國比較病理學會  
收支預算表

中華民國108年1月1日至108年12月31日

單位：新臺幣(元)


款	項	目	科目			本年度與上年度		說明
			本年度預算數	上年度預算數	增加	減少		
1		本會經費收入	75,080	85,080				
	1	入會費	6,000	6,000				
	2	常年會費	35,000	35,000				
	3	贊助會費	30,000	40,000		10,000	學生入會 100 元;一般會員 1000 元 學生會員 100 元;一般會員 1000 元 贊助廠商 5000 元	
	4	利息收入	80	80				
	5	其他收入	4,000	4,000				
2		本會經費支出	54,460	65,880		11,420		
	1	人事費	8,000	6,000	2,000			
	1	兼職人員車馬費	0	0				
	2	其他人事費	8,000	6,000	2,000		講師費 2000 元	
	2	辦公費	11,000	15,380		4,380		
	1	印刷費	8,000	14,080		6,080	會議手冊印製	
	2	旅運費	2,000	300	1,700		病例切片郵寄	
	3	郵電費	1,000	1,000				
	4	公共關係費	0	0				
	3	業務費	30,000	35,800		5,800		
	1	會議費		4,200	4,200			
	4	雜費支出	4,500	8,000		3,500		
	5	提撥基金	2000	960			如有盈餘，得依規定提列 5% 以上	
3		本期餘額	20,620	19,200	1,420			

理事長：

常務監事



秘書長：

會計：

中華民國比較病理學會  
收支決算表  
中華民國 107 年 1 月 1 日至 107 年 12 月 31 日  
單位：新臺幣(元)

款	項	目	科	目	名稱	決算數	預算數	決算與預算比較數		說明
								增加	減少	
1	1	1	1	本會經費收入	89,392	85,080	4,312			
	2	2	1	人會費	7,500	6,000	1,500			一般會員 14 人，學生 10 人
	3	3	1	常年會費 (三年內)	40,800	35,000	5,800			一般會員 44 人，學生 22 人
	4	4	1	贊助會費	35,000	40,000		5,000		廠商捐款
	5	5	1	利息收入	92	80	12			單次報名
			1	其他收入	6,000	4,000	2,000			
2				本會經費支出	48,595	65,880		17,285		
	1	1	1	人事費	8,000	6,000	2,000			
	2	2	1	兼職人員車馬費	0	0	2,000			專題演講者車馬費(共 3 位)及海報工讀生
			2	其它人事費	8,000	6,000	2,000			
	2	2	1	辦公費	7,192	15,380		8,188		
			1	印刷費	6,464	14,080		7,616		印刷第 72、73 及 74 次會議手冊
			2	旅運費	0	300		300		
			3	郵電費	728	1,000		272		
			4	公共關係費	0	0				
	3	3	1	業務費	29,441	25,800	3,641			
			1	會議費	29,441	25,800	3,641			
	4	4	1	雜費支出 (獸醫再教育登錄)	4,500	8,000		3,500		
	5	5	1	提撥基金	2,100	960	1,140			
3				本期餘結	38,189	19,200	18,989			

理事長： 秘書長： 會計：

中華民國比較病理學會  
資產負債表

中華民國 107 年 12 月 31 日  
單位：新臺幣(元)

資	產	負債	基金	暨	餘	總
歷年歲末累計結餘	38,189					
提撥準備基金	2,100					
106 年度餘額	134,612					
		合作金庫活存	140,187			
		現金	34,714			
合 計	174,901	合 計	174,901			

理事長：  


常務監事：  


秘書長：  


會計：  





中華民國比較病理學會

基金收支表

中華民國 107 年 1 月 1 日至 107 年 12 月 31 日止

單位：新臺幣(元)

收		支		出	
科目	金額	科目	金額	科目	金額
準備基金	12,800	準備基金	0		
歷年累存	12,800				
本年度提撥	2,100				
		結餘			13,900

理事長：

常務監事：

秘書長：

會計：

說明：本會暫無基金專戶。於平時時依盈餘情形提列為不可動支的準備基金，於活期存簿中(合作金庫)。目前歷年累存之準備基金為壹萬三千玖百元。

中華民國比較病理學會

現金出納表

中華民國 107 年 1 月 1 日至 107 年 12 月 31 日止

單位：新臺幣(元)

收		人		支		出
科目	名稱	金額	科目	金額	名稱	金額
上期	結存		本期	134,612	支	49,103
本期	收入		本期	89,392	結	174,901
合計	計		合計	224,004	計	224,004

理事長：  


常務監事：  

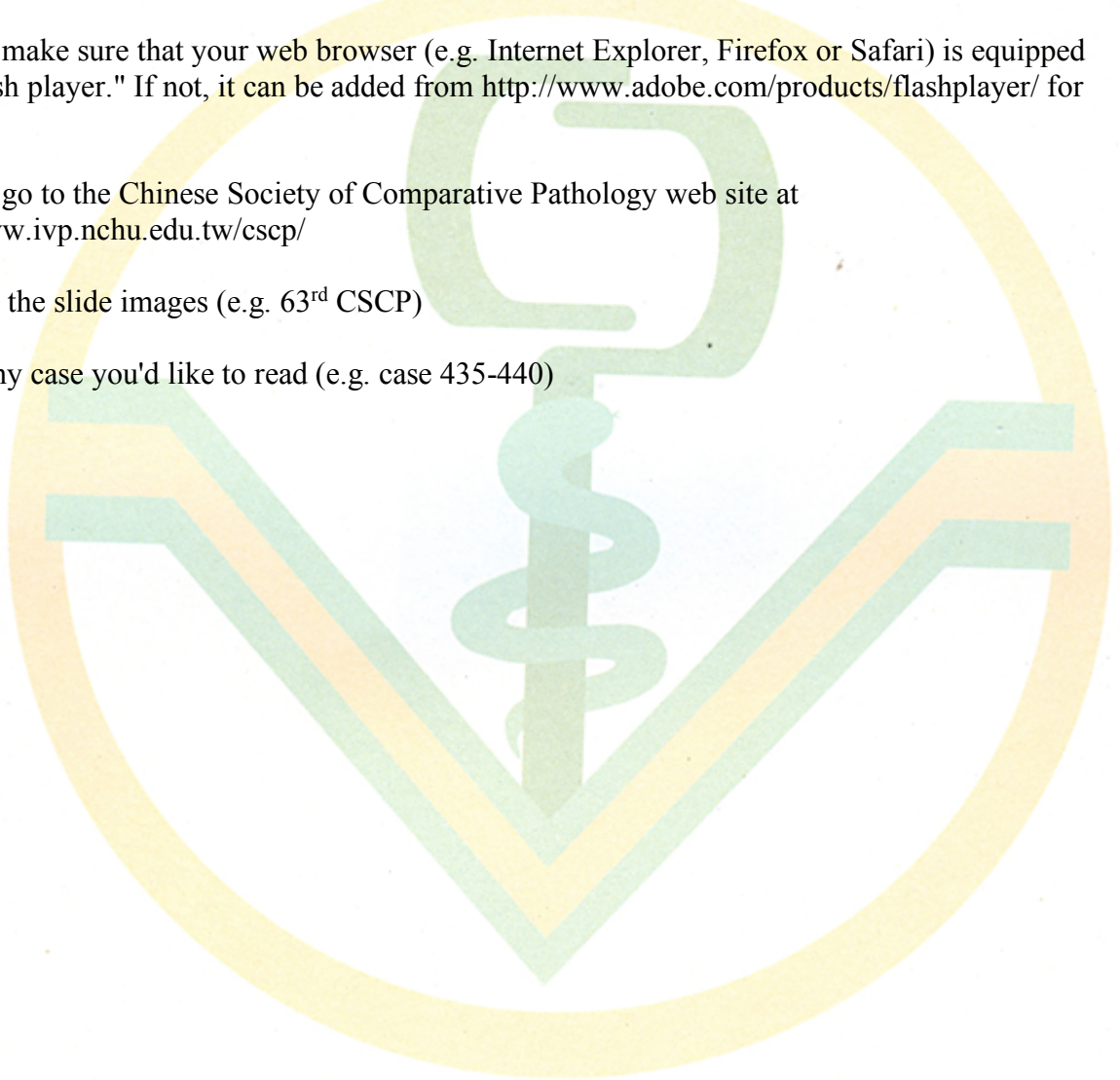

秘書長：  


會計：  


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  
第一次至第七十次比較病理學研討會病例分類一覽表

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

腫 瘤	73.	9	Hepatocellular carcinoma	Human	新光吳火獅紀念醫院
	74.	9	Hepatocellular carcinoma induced by aflatoxin B1	Wistar rats	台灣省農業藥物毒物試驗所
		10	Angiomyolipoma	Human	羅東博愛醫院
		10	Inverted papilloma of prostatic urethra	Human	省立新竹醫院
		10	Nephrogenic adenoma	Human	國泰醫院
		10	Multiple myeloma with systemic amyloidosis	Human	佛教慈濟綜合醫院
		10	Squamous cell carcinoma of renal pelvis and calyces with extension to the ureter	Human	台北病理中心
		10	Fibroepithelial polyp of the ureter	Human	台北耕莘醫院
	90.	10	Clear cell sarcoma of kidney	Human	台北醫學院
	93.	11	Mammary gland adenocarcinoma, complex type, with chondromucinous differentiation	Dog	台灣大學獸醫學系
	94.	11	1. Breast, left, modified radical mastectomy, showing papillary carcinoma, invasive 2. Nipple, left, modified radical mastectomy, papillary carcinoma, invasive 3. Lymph node, axillary, left, lymphadenectomy, papillary carcinoma, metastatic	Human	羅東聖母醫院
	95.	11	Transmissible venereal tumor	Dog	中興大學獸醫學系
	96.	11	Malignant lymphoma, large cell type, diffuse, B-cell phenotype	Human	彰化基督教醫院
	97.	11	Carcinosarcomas	Tiger	台灣養豬科學研究所
	98.	11	Mucinous carcinoma with intraductal carcinoma	Human	省立豐原醫院
	99.	11	Mammary gland adenocarcinoma, type B, with pulmonary metastasis, BALB/cBYJ mouse	Mouse	國家實驗動物繁殖及研究中心
	100.	11	Malignant fibrous histiocytoma and paraffinoma	Human	中國醫藥學院
	102.	11	Pleomorphic adenoma (benign mixed tumor)	Human	佛教慈濟綜合醫院
腫 瘤	103.	13	Atypical central neurocytoma	Human	新光吳火獅紀念醫院
		13	Cardiac schwannoma	SD rat	國家實驗動物繁殖及研究中心
		13	Desmoplastic infantile ganglioglioma	Human	高雄醫學院

	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 (AIDS)with disseminated Kaposi's sarcoma	Human	慈濟醫院病理科
	32	Epithelioid sarcoma	Human	彰化基督教醫院病理科
	32	Cutaneous B cell lymphoma, eyelid , bilateral	Human	羅東聖母醫院病理科
	32	Extramammary Paget's disease (EMPD) of the scrotum	Human	萬芳北醫皮膚科病理科
	32	Skin, back, excision, CD30+diffuse large B cell lymphoma, Soft tissue, leg , side not stated, excision, vascular leiomyoma	Human	高雄醫學大學附設醫院病理科
	34	Malignant melanoma, metastasis to intra-abdominal cavity	Human	財團法人天主教耕莘醫院病理科
	34	Vaccine-associated rhabdomyosarcoma	Cat	台灣大學獸醫學系
	34	1. Pleura: fibrous plaque 2. Lung: adenocarcinoma 3. Brain: metastatic adenocarcinoma	Human	高雄醫學大學附設中和醫院病理科
	34	1. Neurofibromatosis, type I 2. Malignant peripheral nerve sheath tumor (MPNST)	Human	花蓮慈濟醫院病理科
	35	Glioblastoma multiforme	Human	羅東聖母醫院

腫瘤

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



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

腫瘤

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

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

		(2) Hodgkin's lymphoma, mixed cellularity type. Acrokeratosis paraneoplastica		
410	58	Von Hippel–Lindau disease	Human	奇美醫院病理部
411	58	Multiple neoplasia	Tiger	國立屏東科技大學獸醫教學醫院病理科
412	58	Hepatocellular carcinoma and multiple myeloma	Human	中山醫學大學醫學系病理學科暨附設醫院病理科
413	59	DEN plus AAF carcinogens induced hepatic tumor in male rats	Rat	中興大學獸醫病理生物學研究所
417	59	Alveolar soft part sarcoma	Human	高雄醫學大學附設中和紀念醫院病理科
418	60	Seminoma associated with supernumerary testicles	Human	羅東博愛醫院
422	61	Retinoblastoma in a baby girl	Human	彰化基督教醫院
423	61	Colloid goiter in a female Radiated tortoise ( <i>Astrochelys radiata</i> )	Tortoise	台灣大學獸醫專業學院分子暨比較病理生物學研究所
424	61	Lymphoepithelial carcinoma in a women	Human	羅東博愛醫院
425	61	Histiocytic sarcoma in a SJL/J mouse	mouse	國家實驗動物中心
428	62	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	
細菌	1	Tuberculosis	Monkey	臺灣大學獸醫學系	
	7.	1	Tuberculosis	Human	省立新竹醫院
	12.	2	H. pylori-induced gastritis	Human	台北病理中心
	13.	2	Pseudomembranous colitis	Human	省立新竹醫院
	26.	3	Swine salmonellosis	Pig	中興大學獸醫學系
	27.	3	Vegetative valvular endocarditis	Pig	台灣養豬科學研究所
	28.	4	Nocardiosis	Human	台灣省立新竹醫院
	29.	4	Nocardiosis	Largemouth bass	屏東縣家畜疾病防治所
	32.	4	Actinomycosis	Human	台灣省立豐原醫院
	33.	4	Tuberculosis	Human	苗栗頭份為恭紀念醫院

53.	7	Intracavitary aspergilloma and 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
58.	7	Tuberculous enteritis with perforation	Human	佛教慈濟綜合醫院
61.	8	Spirochetosis	Goose	國立嘉義農專獸醫科
63.	8	Proliferative enteritis (Lawsonia intracellularis infection)	Porcine	屏東縣家畜疾病防治所
68.	9	Liver abscess (Klebsillae pneumoniae)	Human	台北醫學院
	10	Xanthogranulomatous inflammation with nephrolithiasis, kidney, right. Ureteral stone, right.	Human	羅東聖母醫院
	10	Emphysematous pyelonephritis	Human	彰化基督教醫院
89.	10	Severe visceral gout due to kidney damaged Infectious serositis	Goose	中興大學獸醫學系
	13	Listeric encephalitis	Lamb	屏東縣家畜疾病防治所
	13	Tuberculous meningitis	Human	羅東聖母醫院
	16	Swine salmonellosis with meningitis	Swine	中興大學獸醫學系
	16	Meningoencephalitis, fibrinopurulent and lymphocytic, diffuse, subacute, moderate, cerebrum, cerebellum and brain stem, caused by Streptococcus spp. infection	Swine	國家實驗動物繁殖及研究中心
	17	Coliform septicemia of newborn calf	Calf	屏東縣家畜疾病防治所
	20	Porcine polyserositis and arthritis (Glasser's disease)	Pig	中興大學獸醫學院
	20	Mycotic aneurysm of jejunal artery secondary to infective endocarditis	Human	慈濟醫院病理科
	21	Chronic nephritis caused by Leptospira spp	Pig	中興大學獸醫學院
	21	Ureteropyelitis and cystitis	Pig	中國化學製藥公司
	36	Pulmonary actinomycosis.	Human	耕莘醫院病理科
	37	Tuberculous peritonitis	Human	彰化基督教醫院病理科
	38	Septicemic salmonellosis	Piglet	屏東科技大學獸醫系
	38	Leptospirosis	Human	慈濟醫院病理科
	39	Mycobacteriosis	Soft turtles	屏東科技大學獸醫系



	42	Staphylococcus spp. infection	Formosa Macaque	中興大學獸醫病理學研究所
	42	Leptospirosis	Dog	台灣大學獸醫學系
	43	Leptospirosis	Human	花蓮慈濟醫院
	43	Cryptococcus and Tuberculosis	Human	彰濱秀傳紀念醫院
319	46	Placentitis, Coxiella burnetii	Goat	台灣動物科技研究所
321	46	Pneumonia, Burkholderia pseudomallei	Goat	屏東縣家畜疾病防治所
339	48	Mycoplasmosis	Rat	國家實驗動物中心
352	50	Chromobacterium violaceum Septicemia	Gibbon	Bogor Agricultural University, Indonesia
353	50	Salmonellosis	Pig	國立中興大學 獸醫學院
367	52	Melioidosis (Burkholderia pseudomallei), lung	Human	花蓮慈濟醫院
370	52	Suppurative bronchopneumonia (Bordetellae trematum) with Trichosomoides crassicauda infestation	Rat	國立中興大學獸醫學院
374	53	Pulmonary coccidiomycosis	Human	彰化基督教醫院
375	53	Paratuberculosis in Macaca cyclopis	Macaca cyclopis	國立屏東科技大學獸醫學院
379	53	Bovine Johne's disease (BJD) or paratuberculosis of cattle	Dairy cow	屏東縣家畜疾病防治所
380	53	NTB, Mycobacterium abscessus	Human	佛教慈濟綜合醫院暨慈濟大學病理科
382	54	Leptospirosis	Pig	國立屏東科技大學獸醫學院
384	54	Neisseria Infected Pneumonitis	Cat	中興大學獸醫學系
385	54	Mycobacteria avian complex dacryocystitis	Human	花蓮佛教慈濟綜合醫院
387	54	Swine Erysipelas	Pig	屏東縣家畜疾病防治所
396	56	Suppurative meningitis caused by Streptococcus spp in pigs	Pig	國立中興大學獸醫病理生物學研究所
399	56	Listeric encephalitis in dairy goats	Goat	屏東縣家畜疾病防治所
435	63	Tuberculosis	Human	花蓮佛教慈濟綜合醫院
438	63	Porcine proliferative enteritis (PPE)	Pig	國立中興大學獸醫病理生物學研究所
446	64	Actinomycosis (lumpy jaw) in a dairy cattle	Cattle	國立中興大學獸醫病理生物學研究所
450	65	Mycobacterium avium infection	Human	花蓮佛教慈濟綜合醫院
464	67	Ulcerative actinomycotic squamous plaque with focal (basal) severe dysplasia, mucosa, gingivobuccal junction, right lower gingiva in a	Human	嘉義聖馬爾定醫院

		man			
469	68	Scrub typhus	Human	佛教慈濟綜合醫院暨慈濟大學	
489	71	Malakoplakia due to Escherichia coli infection, left testis	Human	佛教慈濟綜合醫院暨慈濟大學	
492	71	Cystitis, bilateral ureteritis and pyelonephritis, hemorrhagic, necrotic, purulent, severe, diffuse, chronic progressive, urinary bladder, ureters and kidneys	Dog	國立中興大學獸醫病理生物學研究所	
病毒	21.	3	Newcastle disease	Chicken	台灣大學獸醫學系
	22.	3	Herpesvirus infection	Goldfish	台灣大學獸醫學系
	30.	4	Demyelinating canine distemper encephalitis	Dog	台灣養豬科學研究所
	31.	4	Adenovirus infection	Malayan sun bears	台灣大學獸醫學系
	50.	7	Porcine cytomegalovirus infection	Piglet	台灣省家畜衛生試驗所
	55.	7	Infectious laryngo-tracheitis (Herpesvirus infection)	Broilers	國立屏東技術學院獸醫學系
	69.	9	Pseudorabies (Herpesvirus infection)	Pig	台灣養豬科學研究所
	78.	10	Marek's disease in native chicken	Chicken	屏東縣家畜疾病防治所
	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, polymavirus 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	

病毒

	28	Feline infectious peritonitis(FIP)	Feline	台灣大學獸醫學系
	30	Chicken Infectious Anemia (CIA)	Layer	屏東防治所
219	31	1. Lymph node:Lymphdenitis, with lymphocytic depletion and intrahistiocytic basophilic cytoplasmic inclusion bodies. Etiology consistent with Porcine Circovirus (PCV)infection. 2. Lung: Bronchointerstitial pneumonia, moderate, lymphoplasmacytic, subacute.	Pig	臺灣動物科技研究所
220	31	Cytomegalovirus colitis	Human	彰化基督教醫院病理科
221	31	Canine distemper virus Canine adenovirus type II co-infection	Canine	國家實驗動物繁殖及研究中心
223	32	1. Skin, mucocutaneous junction (lip): Cheilitis, subacute, diffuse, sever, with epidermal pustules, ballooning degeneration, proliferation, and eosinophilic intracytoplasmic inclusion bodies, Saanen goat. 2. Haired skin: Dermatitis, proliferative, lymphoplasmacytic, subacute, diffuse, sever, with marked epidermal pustules, ballooning degeneration, acanthosis, hyperkeratosis, and eosinophilic intracytoplasmic inclusion bodies.	Goat	台灣動物科技研究所
238	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

病毒

	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
黴菌	23.	3	Chromomycosis	Human	台北病理中心
	47.	7	Lung: metastatic carcinoma associated with cryptococcal infection. Liver: metastatic carcinoma. Adrenal gland, right: carcinoma (primary)	Human	三軍總醫院
	48.	7	Adiaspiromycosis	Wild rodents	台灣大學獸醫學系
	52.	7	Aspergillosis	Goslings	屏東縣家畜疾病防治所
	53.	7	Intracavitary aspergilloma and cavitary tuberculosis, lung.	Human	羅東聖母醫院
	54.	7	Fibrocalcified pulmonary TB, left Apex. Mixed actinomycosis and aspergillosis lung infection with abscess DM, NIDDM.	Human	林口長庚紀念醫院

黴菌

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

寄生蟲

14.	2	Dirofilariasis	Dog	台灣省家畜衛生試驗所
15.	2	Pulmonary dirofilariasis	Human	台北榮民總醫院
20.	3	Sparganosis	Human	台北榮民總醫院
46.	7	Feline dirofilariasis	Cat	美國紐約動物醫學中心
49.	7	Echinococcosis	Human	台北榮民總醫院
60.	8	Intestinal capillariasis	Human	台北馬偕醫院
64.	8	Adenocarcinoma of sigmoid colon Old schistosomiasis of rectum	Human	省立新竹醫院
66.	8	Echinococcosis	Chapman's zebra	台灣大學獸醫學系
67.	9	Hepatic ascariasis and cholelithiasis	Human	彰化基督教醫院
	13	Parasitic meningoencephalitis, caused by 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, Angiostongylus 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	
原蟲	4.	1	Cryptosporidiosis	Goat	台灣養豬科學研究所
	15.	2	Amoebiasis	Lemur fulvus	台灣養豬科學研究所
	16.	2	Toxoplasmosis	Squirrel	台灣養豬科學研究所
	17.	2	Toxoplasmosis	Pig	屏東技術學院 獸醫學系
	51.	7	Pneumocystis carinii pneumonia	Human	台北病理中心
	57.	8	Cecal coccidiosis	Chicken	中興大學獸醫學系
	65.	8	Cryptosporidiosis	Carprine	台灣養豬科學研究所
	211	30	Avian malaria, African black-footed penguin	Avian	臺灣動物科技研究所
	242	35	Neosporosis	Cow	國立屏東科技大學 獸醫學系

	263	38	Intestinal amebiasis	Human	彰化基督教醫院病理科
	320	46	Cutaneous leishmaniasis	Human	佛教慈濟綜合醫院
	325	46	Myocarditis/encephalitis, Toxoplasma gondii	Wallaby	國立臺灣大學獸醫專業 學院
	443	65	Brain toxoplasmosis in a man	Human	佛教慈濟綜合醫院病理科
	462	67	Toxoplasmosis	Human	佛教慈濟綜合醫院病理科
	470	68	Leucocytozoonosis	chickens	中興大學獸醫病理生物 學研究所
立 克 次 體	229	32	Necrotizing inflammation due to scrub typhus	Human	佛教慈濟醫院病理科
	251	36	Scrub typhus with diffuse alveolar damage in bilateral lungs.	Human	佛教慈濟醫院病理科
皮 膚	216	30	Cytophagic histiocytic panniculitis with terminal hemophagocytic syndrome	Human	佛教慈濟綜合醫院病理科
	359	51	Eosinophilic granuloma with fungal infection, Skin	Cat	國立臺灣大學獸醫專業 學院
	360	51	Septa panniculitis with lymphocytic vasculitis	Human	慈濟綜合醫院暨慈濟大 學
其 它	9.	2	Perinephric pseudocyst	Cat	台灣大學獸醫學系
	10.	2	Choledochocyst	Human	長庚紀念醫院
	11.	2	Bile duct ligation	Rat	中興大學獸醫學系
	37.	4	Myositis ossificans	Human	台北醫學院
	75.	9	Acute yellow phosphorus intoxication	Rabbits	中興大學獸醫學系
	76.	10	Polycystic kidney bilateral and renal failure	Cat	美國紐約動物醫學中心
	80.	10	Glomerular sclerosis and hyalinosis, segmental, focal, chronic, moderate Benign hypertension	SHR rat	國防醫學院 & 國家實 驗動物繁殖及研究中心
	83.	10	Phagolysosome-overload nephropathy	SD rats	國家實驗動物繁殖及 中心
	85.	10	Renal amyloidosis	Dog	台灣養豬科學研究所
	89.	10	Severe visceral gout due to kidney damaged infectious serositis	Goose	中興大學獸醫學系
	91.	10	Hypervitaminosis D	Orange- rumped agoutis	台灣大學獸醫學系
		14	Cystic endometrial hyperplasia	Dog	臺灣養豬科學研究所
		14	Cystic subsurface epithelial structure (SES)	Dog	國科會實驗動物中心
	15	Superficial necrolytic dermatitis	Dog	美國紐約動物醫學中心	

其它

	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



其他

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	Parastromyiasis (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

## 會員資料更新服務

各位會員：

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

中華民國比較病理學會秘書處

張惠雯 助理教授

cscptaiwan@gmail.com

02-33661296

106 台北市羅斯福路四段一號 國立台灣大學 獸醫專業學院

-----中華民國比較病理學會-----

會員資料更改卡

姓 名：\_\_\_\_\_

會員類別：一般會員

學生會員

贊助會員

最高學歷：\_\_\_\_\_

服務單位：\_\_\_\_\_職 稱：\_\_\_\_\_

永久地址：\_\_\_\_\_

通訊地址：\_\_\_\_\_

電 話：\_\_\_\_\_傳 真：\_\_\_\_\_

E-Mail Address：\_\_\_\_\_

# 中華民國比較病理學會

誠摯邀請您加入

## 入 會 辦 法

### 一、 本會會員申請資格為：

- (一) 一般會員：贊同本會宗旨，年滿二十歲，具有國內外大專院校（或同等學歷）生命科學及其它相關科系畢業資格或高職畢業從事生命科學相關工作滿兩年者。
- (二) 學生會員：贊同本會宗旨，在國內、外大專院校生命科學或其他相關科系肄業者（請檢附學生身份證明）。
- (三) 贊助會員：贊助本會工作之團體或個人。
- (四) 榮譽會員：凡對比較病理學術或會務之推廣有特殊貢獻，經理事會提名並經會員大會通過者。

### 二、 會員：

- (一) 入 會 費：一般會員新台幣壹仟元，學生會員壹佰元，贊助會員伍仟元，於入會時繳納。
- (二) 常年會費：一般會員新台幣壹仟元，學生會員壹佰元。  
【註：學生會員身份變更為一般會員時，只需繳交一般會員之常年會費】

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

中華民國比較病理學會入會申請及會員卡

會電腦編號

姓名	中文		姓別	<input type="checkbox"/> 男 <input type="checkbox"/> 女	出生 身 份 証	民國	年	月	日	出生地
	英文		會員身份： <input type="checkbox"/> 一般 <input type="checkbox"/> 學生 <input type="checkbox"/> 贊助							
學歷	(1)	稱謂(圈選) 先生 小姐 醫師 獸醫師 教授 博士 研究員 主任 其他:								
	(2)	研究 興 趣	(1)							
	(3)		(2)							
	(4)		(3)							
主要 經 歷	機關名稱		職務	起		止				
				年	月	年	月			
				年	月	年	月			
現職				年	月	年	月			
通訊地址 現在： 電話： 傳真： 永久： 電話 傳真： 電子信箱(E-mail)：										
茲 贊 同 貴會宗旨擬加入為會員嗣後並願遵守一切章共圖發展 此 致 中華民國比較病理學會 申請人 簽章 介紹人 簽章 介紹人 簽章 中華民國 年 月 日									審核結果	