

Chinese Society of Comparative Pathology
中華民國比較病理學會
第 77 次比較病理學研討會
臨床與病理診斷不吻合病例討論專題
(Clinical and pathological incompatible findings- the importance of pathology)



主辦單位
Chinese Society of Comparative Pathology
中華民國比較病理學會
臺北市立動物園
December 14, 2019 (中華民國 108 年 12 月 14 日)

SCHEDULE
77th MEETING OF COMPARATIVE PATHOLOGY
 中華民國比較病理學會 第 77 次比較病理學研討會
臨床與病理診斷不吻合病例討論專題

時間：108 年 12 月 14 日(星期六)

地點：臺北市立動物園

地址：11656 臺北市文山區新光路二段 30 號 演講廳

電話：0963750228

| Time (時間) | Schedule (議程) | | Moderator (主持) |
|-------------|--------------------------------------|---|----------------|
| 09:10~9:30 | Registration (報到) | | |
| 9:30~9:40 | Opening Ceremony (致詞) 許永祥 理事長/金仕謙園長 | | |
| 9:40~10:40 | 專題演講 | 專題演講: 疾病管制署 蘇迎士 醫師 題目：大型人畜共通傳染病爆發的調查以及監測系統的介紹 | 金仕謙園長 |
| 10:40-11:10 | Coffee Break (拍團體照) | | |
| 11:10~11:35 | Case 536 | Chen, Tai-Chen ¹ (陳泰里); Hong, Song-Jen ² (洪崧壬); Hsu, Yung-Hsiang ³ (許永祥) ¹ Department of Medical education, Hualien Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Hualien, Taiwan (佛教慈濟醫療財團法人花蓮慈濟醫院醫務部) ² Department of Dermatology, Hualien Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Hualien, Taiwan (佛教慈濟醫療財團法人花蓮慈濟醫院皮膚科) ³ Department of Pathology, Hualien Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Hualien, Taiwan (佛教慈濟醫療財團法人花蓮慈濟醫院病理科) | 金仕謙園長 |
| 11:35~12:00 | Case 530 | Lee, Ting-Wei (李庭璋), DVM, MS ¹ ; Liu, Chen-Hsuan (劉振軒), DVM, PhD ¹ ; Huang, Wei-Hsiang (黃威翔), DVM, PhD ¹ * ¹ 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) | 張惠雯秘書長 |
| 12:00~13:00 | Lunch 演講室 Board Meeting 理監事會議 會議室 | | |
| 13:00~14:00 | 專題演講 | 專題演講: 許家達 (Chia-Da Hsu) 獸醫師 題目：Pathology in Wildlife Reserves Singapore Conservation, Research and Veterinary Service, Wildlife Reserves Singapore | 張惠雯秘書長 |
| 14:00~14:25 | Case 537 | Chang, Jun-Liang (張俊梁), MD, PhD ¹ , Tsai, Wan-Chen (蔡宛真), MD ² , Chen, Be-Di (陳琲迪), MD ³ ¹ Department of Pathology & Laboratory Medicine, Taoyuan Armed Forces General Hospital (國軍桃園總醫院 病理檢驗部) ² Department of Surgery, Taoyuan Armed Forces General Hospital (國軍桃園總醫院 外科部) | 張惠雯秘書長 |

| | | | |
|-------------|--|--|------------|
| | | ³ Department of Surgery, Taoyuan Armed Forces General Hospital (國軍桃園總醫院 放射科) | |
| 14:25~14:50 | Case 538 | Shih, Chia-Wen (施洽雯), M.D., M.S. ¹ Ching-Wen Chiang (蔣敬文), M.D. ² 1. Department of Pathology, Lotung Poh-Ai Hospital (羅東博愛醫院病理科) 2. Department of Otolaryngology, Lotung Poh-Ai Hospital (羅東博愛醫院耳鼻喉科) | 張惠雯 秘書長 |
| 14:50~15:30 | Coffee Break | | |
| 15:30~15:55 | Case 539 | Luo, I-Chi (羅怡琪), DVM, MS; Tsao, Wen-Tien (曹文恬), DVM, MS; Jiang, Chia-Wei (江家瑋), DVM, MS Center for Diagnostic Pathology, Vetco Pharmaceuticals Inc. (臺灣動藥國際股份有限公司病理診斷中心) | 張惠雯 秘書長 |
| 15:55~16:20 | Case 540 | 施正心, DVM, MS and Huang, Wei-Hsiang (黃威翔), DVM, PhD ¹ * ¹ 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) | 張惠雯 秘書長 |
| 16:20~16:45 | Case 541 | Kao, Chi-Fei (高啟霏), DVM, MS ¹ ; Wei-Hsiang Huang (黃威翔), DVM, PhD ¹ ; Liu, Chen-Hsuan (劉振軒), DVM, PhD ¹ ¹ School of Veterinary Medicine, National Taiwan University (國立臺灣大學獸醫專業學院) ² Graduate Institute of Molecular and Comparative Pathobiology, School of Veterinary Medicine, National Taiwan University (國立臺灣大學獸醫專業學院分子暨比較病理生物學研究所) | 張惠雯 秘書長 |
| 16:45~17:00 | General Discussion (綜合討論) 許永祥 理事長 | | |

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Special Lecture

(專題演講)

題目：大型人畜共通傳染病爆發的調查以及監測系統的介紹

疾病管制署 蘇迎士 醫師

一、課程主題摘要內容

| | |
|-------------|--|
| 主講題目 | 世界只有一個，人類是其中一部份，其他生物也是 |
| 摘要內容 | 人畜共通傳染病帶來的危險是真實的，也相當嚴重，然而不確定性也高。病原可能是原蟲、可能是細菌、可能是立克次體，甚至無法捉摸的病毒。近幾十年來，新興人畜共通傳染病的出現步調加快了，病原的傳播力和毒力交互作用，影響了這個病原的傳播能力和致死能力。 本次演講會提出簡要的幾次大型人畜共通傳染病爆發的調查以及監測系統的介紹。 |

二、講師資料表

| | | | | | |
|------------------------|--|-----------|-------------|-------------|-------------|
| 講師姓名 | 蘇迎士 | | | | |
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| *最高學歷 | 學 校： 國防醫學院 | | | | |
| | 科 系： 醫學系 | 畢業年度： | 2002 | | |
| | 級 別：（請勾選） <input type="checkbox"/> 研究所（博士） <input type="checkbox"/> 研究所（碩士） <input checked="" type="checkbox"/> 大學（學士） <input type="checkbox"/> 技術學院 <input type="checkbox"/> 大專 | | | | |
| | 單位名稱 | 職稱 | 教學年資 | 實務年資 | 研究年資 |
| *現 職 | 疾病管制署 | 防疫醫師 | | 6 | |
| | 慈濟大學藥毒所博士班 | 博士候選人 | | | |
| *經 歷 (至多5項) | 三軍總醫院 | 感染科訓練醫師 | | 2 | |
| | 國軍花蓮總醫院 | 感染科醫師 | | 3 | |
| | 國軍花蓮總醫院 | 感控室主任 | | 2 | |
| | 花蓮慈濟醫院 | 感染科醫師 | | 0.25 | |
| | 歐盟流行病專家訓練 | 研究員 | | 2 | |
| 專 長 | 感染症醫學，藥理暨毒理學，微生物免疫學 | | | | |

Special Lecture

(專題演講)

題目：Pathology in Wildlife Reserves Singapore

Chia-Da Hsu, D.V.M.

Conservation, Research and Veterinary Service, Wildlife Reserves Singapore

Short Abstract

The 4 wildlife attractions of Wildlife Reserves Singapore, namely Singapore Zoo, Night Safari, Jurong Bird Park and River Safari, manage over 20,000 animals across more than 900 species. As part of our health management program all animals that die in our collection receive a full post-mortem examination and diagnostic work-up by our in-house pathology laboratory.

Compared to pathology for domestic animals, pathology investigations in zoological collections are usually less difficult as in most cases a complete history of the animal is provided prior to the examination. However, a correct determination of the cause of death still depends significantly on the tools and methodologies used during the investigation and the quality of historical information provided.

This talk will provide an overview of the processes and diagnostic methods used at Wildlife Reserves Singapore to determine causes of death in a large variety of species and will demonstrate how pathology can improve and compliment clinical diagnostic capabilities in Zoological collections.

Keywords: pathology, zoo and wildlife

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77th CP slide website
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| Case No. | Presenter | Slide No. | Diagnosis |
|----------|-----------|---------------|--|
| Case 536 | 陳泰里 | S2019-9492 | Skin infection of Orf virus http://www.ivp.nchu.edu.tw/slide_view.php?id=1650 |
| Case 530 | 李庭璋 | NTU20182738 | Amyloid-producing odontogenic tumor http://www.ivp.nchu.edu.tw/slide_view.php?id=1622 |
| Case 537 | 張俊梁 | 184162 | Primary appendiceal mantle cell lymphoma (MCL), B-cell type, caused acute suppurate appendicitis. http://www.ivp.nchu.edu.tw/slide_view.php?id=1647 |
| Case 538 | 施洽雯 | LP_5263 | Follicular lymphoma in thyroid of nodular goiter. http://www.ivp.nchu.edu.tw/slide_view.php?id=1651 |
| Case 539 | 羅怡琪 | S2019_2436 | Epitheliotropic mastocytic conjunctivitis, both sides of medial canthus, eyes http://www.ivp.nchu.edu.tw/slide_view.php?id=1652 |
| Case 540 | 施正心 | NTU2019-1602C | Systemic toxoplasmosis http://www.ivp.nchu.edu.tw/slide_view.php?id=1655 |
| Case 541 | 高啟霏 | NTU2018-2886 | Protothecosis http://www.ivp.nchu.edu.tw/slide_view.php?id=1659 |

Case Number: 536

Slide No. S2019-9492

Slide View: http://www.ivp.nchu.edu.tw/slide_view.php?id=1650

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CASE HISTORY:

Signalment:

A 57-year-old man presented to Hualien Tzu Chi Hospital (HTCH) with chief complaint of four asymptomatic skin tumors over face and right little finger for one week. He is a chicken feeder who stated that he has eaten raw Reeves's muntjac liver once to two times a week several months prior to his admission. No fever, chills, or other systemic symptoms was complained. Lab test and radiography showed no remarkable finding. Impression smears of the mass revealed ciliated cuboidal epithelial cells.

Gross Findings:

There is a 1.3 x 1.4 cm, well-defined erythematous nodule with weeping exudate over his right upper face. There is also a 1.0 x 1.0 cm, violaceous nodule with crust formation over his lower face. One 1.0 x 0.8 cm, ill-defined erythematous nodule is over his right angulus oris region. The other nodule (0.8 x 0.8 cm) is over his right little finger with crust formation.

CASE RESULT:

Histopathological Findings:

Microscopically, there are several homogenous inclusion bodies located at epidermal region. There are also Candida species found at superficial epidermal area. PCR for Orf virus is positive (708 bp).

Pathological Diagnosis: Skin infection of Orf virus

Differential diagnosis:

1. Lobular capillary hemangioma (Pyogenic granuloma)
2. Atypical infection of skin
3. Milker's nodule (pseudocowpox) and bovine papular stomatitis (bovine papular stomatitis virus)

Discussion:

Orf disease, also called contagious pustular dermatosis, is a self-limited zoonotic viral infection that usually affects the hands of people handling infected animals. Walley first identified orf as a contagious disease in sheep in 1890, and Newson and Cross first described the disease in humans in 1934. It is endemic in sheep and goats, and it is transmitted to humans through contact with infected tissue or fomites. Although sheep and goats are the most common sources of infection, the virus also has been found in mountain goats, gazelles, musk oxen, and reindeer. The nostrils and lips of infected animals are affected, as well as the teats of ewes suckling young. Human disease is most often seen in farmers, shepherds, veterinarians, and butchers, but anyone who has contact with small ruminants

is at risk. Humans develop disease after contact with animals or fomites such as barn doors, feeding troughs, wire fencing, bottles, and harnesses.

According to the CDC, the disease is not transmitted from human to human. It usually develops on hands but can occur anywhere, including the face and perianal area. A solitary lesion is the most common presentation, but multiple lesions are possible. Lesions are typically painless with 6 clinical stages, each lasting roughly 1 week. Systemic findings are uncommon in immunocompetent individuals but can include lymphadenopathy and lymphangitis. Rarely, fever and malaise may occur. Clinical appearance and history of ungulate exposure are usually diagnostic.

Orf virus is an ovoid crosshatched particle approximately 250 nm long x 150 nm wide. It is very stable and can survive heating, drying, and solvents. It is transmitted through a crack in the skin and replicates within the epidermis. Orf virus interferon resistance protein and virus interleukin-10 inhibit interferon and inflammatory cytokine production. Granulocyte-macrophage colony-stimulating factor inhibitory factor inhibits the biologic activity of granulocyte-macrophage colony-stimulating factor and interleukin-2. Clearance of the infection occurs when host immune response eventually overcomes orf's immunomodulatory proteins.

Pathology

-Maculopapular and target stages: intranuclear and intracytoplasmic inclusions are present in vacuolated epidermal cells, with an accumulation of neutrophils, basophils, dendritic cells, and lymphocytes

-Acute stage: multilocular vesicles form and the epidermis degenerates

-Papillomatosis and acanthosis subsequently develop, and marked finger-like downward projections of the epidermis may be seen

-Special tests: RT-PCR testing, which is available through the CDC, is the most rapid and accurate way to make the diagnosis when clinical uncertainty exists

-Electron microscopy cannot definitively distinguish between Orthopoxvirus and Parapoxvirus

Supportive care is the most appropriate intervention for immunocompetent patients

Application of compresses, culture of lesion specimens, and antibiotic coverage may be appropriate if secondary bacterial infection is suspected. Individuals with an impaired skin barrier from either abrasions or intrinsic skin disease (eg, atopic dermatitis) should be particularly vigilant about avoiding contact with infected animals or potential fomites.

Acknowledgement:

Hui-Wen Chang, School of Veterinary Medicine National Taiwan University for PCR sequencing

References:

1. Sewon Kang, Masayuki Amagai, Anna L. Bruckner, Alexander H. Enk, David J. Margolis, Amy J. McMichael, Jeffrey S. Orringer. Orf virus infection of skin. Fitzpatrick's Dermatology, 9th edition.
2. John T. Kuhl, Christopher J. Huerter, Hisham Hashish. A Case of Human Orf Contracted From a Deer. *Cutis*. 2003 April;71(4):288-290
3. Frandsen JI, Enslow M, Bowen AR. Orf parapoxvirus infection from a cat scratch. *Dermatol Online J*. 2011 Apr 15;17(4):9.
4. Billinis C, Mavrogianni VS, Spyrou V, Fthenakis GC. Phylogenetic analysis of strains of Orf virus isolated from two outbreaks of the disease in sheep in Greece. *Virology* 9: 24, 2012.
5. Mayr A, Buttner M. Ecthyma (Orf) virus. In: Dinter Z, Morein B, eds. *Virus infections of vertebrates. Vol. 3. Virus infections of ruminants*. Elsevier Science, New York, USA, 33-42, 1990.
6. Michelsen PGE. Contagious ecthyma (sore mouth, Orf, contagious pustular dermatitis, scabby mouth). In: Smith BP, ed. *Large animal internal medicine*. 4th ed. Mosby, St. Louis, USA, 789-790, 2009.
7. Smith MC, Sherman DM. Contagious ecthyma. In: Smith MC, ed. *Goat medicine*. 2nd ed. Wiley-Blackwell, Iowa, USA, 30-32, 2009.

Case Number: 537

Slide No. 184162

Slide View: http://www.ivp.nchu.edu.tw/slide_view.php?id=1647

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CASE HISTORY:

Signalment: A 59-year-old male

Clinical history:

A 59-year-old male visited at our ER Department due to right lower abdominal pain since this afternoon. The patient was robust in the past. On this admission, he suffered from right lower abdominal pain. He was no episodes of defecation with bloody stool. He denied any changes in appetite or weight loss. He was admitted under the acute abdominal pain. The acute appendicitis was highly suspected further investigation and management. He is a Taiwanese. He has hypertension and gout with regular medications. He had gall stone with cholecystitis post cholecystectomy for 5 years. He has habit of cigarette smoking about 1 PPD for over 30 years. He had no habit of social alcoholic beverages drink or 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 family history or cancer. In admission, physical examination, vital sign showed BT was 36°C, PR was 82/min, RR was 19/min, BP was 124/82 mmHg. 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 5th 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, RLQ tenderness, rebound tenderness, Muscle guarding (+), local tenderness over McBurney site (+), or no palpable liver or spleen. 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 non-tenderness or nodularity. Others were non-contributions.

Laboratory results (Clinical Pathology) and Imaging study:

The laboratory data included the CBC, Hb was 15.2 gm/dL (14.0-18.0), WBC was leukocytosis with $18.27 \times 10^3/\text{ul}$ (4500-11000), N/L was 72/22, 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 no significant finding. The axial contrast-enhanced CT scan showed marked swelling appendix measured 1.3 cm in the maximal diameter and a homogeneously enhanced soft tissue attenuation mound at the appendiceal orifice and base. Dilated appendix with circumferential homogeneous mural soft-tissue thickening, and preserved vermiform appearance. Note infiltration of the mesoappendiceal fat. The acute appendicitis was firstly considered. There marked portal hepatic, mesenteric, and retroperitoneal lymphadenopathies was also found. There also presented marked portal hepatic, mesenteric, and retroperitoneal lymphadenopathies, and the metastatic lymphadenopathies was highly suspected. Consequently he underwent laparoscopic appendectomy.

Gross Findings:

The specimen submitted consisted of an appendiceal tissue with brown to purple in appearance, measuring up to 9 cm in length and up to 1.3 cm in the maximal diameter of the lumen with severe congestion and on cut sections showed filling with fecalith, and solid intramural mass measuring 1.1 cm in largest dimension. Total excised specimen submitted was embedded for serial section.

CASE RESULT:

Histopathologic Findings:

Microscopically, the appendiceal tissue fragment submitted demonstrated pictures of malignant lymphoma, composed of marked lymphoid hyperplasia, multifocal well-defined proliferative expanded lymphoid tissue with obscure lymphoid follicles.

The reactive atypical cell hyperplasia with mild polymorphism in the mantle zones, variety of cell types of naive pre-germinal center cells. The lymphoma was composed of rather uniform and monotonous small, medium to intermediate lymphocytic proliferation, and moderate pleomorphic cells. Occasional larger cells with open chromatin and distinct to prominent nucleoli are admixed. These tumor cells are characterized by a small to intermediate cells with a high nuclear to cytoplasmic ratio, round to slightly irregular nuclear contours, delicate chromatin and indistinct nucleoli. The appendiceal wall composed of architecture with sheets of small to intermediate-sized lymphoid cells, exhibiting round to slightly irregular nuclear contours, delicate to clumped chromatin and indistinct nucleoli, with a high nuclear to cytoplasmic ratio. There presented obscure hyalinized vascular proliferation and epithelioid histiocytes with lamina propria, submucosa, penetrating into muscularis layers, serosa and mesoappendiceal fibroadipose involvement. Marked active inflammatory cells infiltration with whole layers and mesoappendix involvement also found.

Differential Diagnoses:

1. Acute suppurate appendicitis
2. Low-grade appendiceal mucinous neoplasm (LAMN) or Neuroendocrine tumor
3. Malignant lymphoma, extranodal type
4. Lymphoproliferative disorders, including CLL
5. Inflammatory bowel disease:
MALT lymphoma: may present as multiple lymphomatoid polyposis but has lymphoepithelial lesions and is negative for CD5 and cyclin D1
6. Multiple lymphoid polyps:
Benign germinal centers in children, patients with Gardner's syndrome
7. Nodular lymphoid hyperplasia:
Common variable immunodeficiency syndrome

Immunohistochemistry:

These lymphoma cells showed negative for histochemical staining for PAS and mucin stains. Immunophenotypic findings, these lymphoma cells demonstrated positively diffusely immunoreactivity for CD45, CD20, Bcl-2, cyclin D1, SOX11, IgD, IgM, Ki-67 labelling proliferating index (60%), increase positive for p53, Bcl-2. CD21 and CD23 showed positive immunostaining for expanded follicles dendritic meshwork. The also presented negative immunoreactivity for pan-CK, EMA, S-100 protein, EMA, CD3, CD5, CD10, and CD23 stains. The lymphoid infiltrate in the bowel and appendix was positive for CD20, CD5, PAX5, Bcl-1, Bcl-2 and negative for CD10 and CD23.

Anatomic Diagnosis:

Primary appendiceal mantle cell lymphoma (MCL), B-cell type, caused acute suppurate appendicitis.

(Pathological TNM stage: p any T any N M1a, Stage IV based on the 8th AJCC staging system.)

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

Follow-up and workup:

He was no complication during hospitalized days. The patient was assigned to hematology for the continuation of the diagnostic and therapeutic process. Additionally, the patient's family refused to accept further therapeutic course arrangement. He was transferred to Taipei Veterans General Hospital for further management under the definite pathological diagnosis.

Discussion:

Primitive gastrointestinal (GI) lymphomas are uncommon and comprise 1–4% of the malignant GI neoplasms. GI tract is the most common location for extranodal lymphomas. The GI lymphomas mainly affect the stomach followed by the small intestine, pharynx, colon and esophagus. Men are more affected and the median age at diagnosis for lymphomas non-Hodgkin of GI tract was 55 years. Primary lymphomas of appendix are extremely rare tumors with incidence is 0.015% of all GI lymphomas. Of all lymphoma prevalence, a subtype of lymphoma known as MCL comprises only 4% in the U.S. and 7 to 9% in Europe. GI involvement by MCL is a relatively frequent occurrence and is thought to occur in 20 to 30% of cases. Appendiceal involvement by MCL is not well documented. MCL usually involves the GI tract as either single, isolated or multiple polyps as so-called multiple lymphomatous polyposis. These polyps are usually found throughout the GI system but frequently there is a larger polyp in ileocecal valve region accompanied by mesenteric lymph node involvement.

The primary MCL of the appendix is extremely rare. The clinical onset of the disease is often constituted by a surgical complication that requires urgent intervention. Lymphoma involving the appendix in association with acute appendicitis has been rarely described previously, with the majority of cases being Burkitt or large B-cell lymphoma. However, the incidence of lymphoma causing appendicitis is such rare event that not much is known about pathogenesis. The neoplasms of appendix usually manifest clinically with sign and symptoms of acute appendicitis from luminal obstruction (30 to 50%). Other important clinical manifestations may be an asymptomatic palpable mass, incidental imaging findings, intussusception, GI bleeding and ureteral obstruction or hematuria and increasing abdominal girth from rupture of a malignant mucocele, resulting in pseudomyxoma peritonei. As rare as for any lymphoma to cause appendicitis, it is rarer for MCL to be found in appendix specimen after an appendectomy. We present an additional case of primary MCL of the appendix manifest clinically with sign and symptoms of acute appendicitis. This case is reported in line with the SCARE (Surgical CAse Report) Guidelines criteria.

MCL is an intermediate-grade B-cell lymphoma in the mantle zone around germinal centers composed of monomorphic small to medium sized lymphocytes with irregular nuclear contours and is characterized by overexpression of cyclin D1 as a result of a t(11;14) (q13;q32) translocation. Most patients present with lymphadenopathy, often with spleen and bone marrow involvement. MCL can present around Waldeyer's ring (peritonsillar area of the oropharynx), in lymph nodes, or in the GI tract, where it may produce polyps composed of neoplastic small lymphocytes. MCL occurs in older adults and commonly presents as generalized disease with spleen, bone marrow, and gastrointestinal tract involvement. Mantle cells resemble normal B-cells and have a cell surface phenotype similar to that of CLL with coexpression of normal B-cell markers and CD5 with a characteristic immunophenotype (CD5+, CD10±, and CD23–) and genotype with t(11;14) translocation and BCL1 (CCND1/PRAD1) gene overexpression and they have a specific translocation between the bcl-1

proto-oncogene (i.e., the gene that encodes cyclin D) and the immunoglobulin heavy chain gene. The translocation results in overexpression of cyclin D, which drives cell proliferation through the G1S cell cycle checkpoint. IHC stains, especially cyclin D1, can easily distinguish mantle cell lymphoma from other small B-cell neoplasms.

Furthermore, previously investigators suggest that immunohistochemical (IHC) evaluation demonstrated positive for CD20, CD5, Cyclin D1, bcl-6 (that fits for blastoid type), negative for CD3, CD23 and CD10. MIB-1/Ki67 proliferative index was increase expression. The IHC pattern may be indicated in all adult patients with appendicitis whose lymphoid tissue appears unusually prominent or exhibits atypical histologic features. IHC or FISH analysis for cyclin D1 is important for definitive diagnosis or exclusion of MCL due to its clinically aggressive behavior in comparison to other small B cell neoplasms, and patients are typically treated with intensive chemotherapy at the time of diagnosis. In a cohort of 116 patients the mean overall survival for patients with lymphoma of the vermiform appendix was 185 months and the 5-year survival rate was 67%. Regarding mantle cell lymphoma, the proliferation index Ki67 and its antibody MIB-1 as histopathological parameters have a high prognostic relevance. Currently, advanced disease is not curable with chemotherapy. The median survival for patients with generalized disease is 4 to 6 years, and early use of high-dose therapy is promising. Expression of a microarray gene profile characterized by high proliferation, or a high Ki-67 growth fraction, confers a worse prognosis. MCL is a tumor of small lymphocytes that has an aggressive clinical course with low 5-year survival.

In previously reports demonstrated less than 20 cases of acute appendicitis in association with lymphomatous infiltration in the English literature. A majority of cases represent Burkitt's lymphoma with the remainder of cases representing large cell lymphoma or without classification. To the best of our knowledge, it is noted that there is a single case report that describes finding at the time of retrospective review of an appendectomy specimen from a patient subsequently diagnosed with MCL. The majority of the gross and histologic features were otherwise typical of a ruptured suppurate appendicitis with benign lymphoid hyperplasia that may occlude the lumen of the appendix and the development of the infection. However, given the relatively limited involvement of the appendiceal submucosa by lymphoma in this case, we cannot completely rule out that the MCL present in the appendix represents a true incidental finding, unrelated to the development of the acute appendicitis.

MCL usually responds to chemotherapy, cure is rare. The surgical approach and obviate additional surgery may change with detection of these neoplasms at preoperative imaging. In the past, preoperative diagnosis with the increased use of computed tomography (CT) show diffuse enlargement of the appendix from lymphomatous infiltration on both ultrasound and CT. Diffuse appendiceal enlargement (diameter of 6–7 mm) is also well established as the diagnostic threshold for acute appendicitis, especially if it is associated with stranding of the periappendiceal fat. The inflamed appendix without neoplasm will usually not exceed 15 mm in diameter on CT, enlargement beyond this size should be viewed with suspicion. Although the CT finding of enlargement of the appendix seems to be fairly characteristic of non-Hodgkin's lymphoma, such a finding is not pathognomonic. Neuroendocrine tumors can show an infiltrative pattern of growth.

PET/CT is important for staging lymphoma. PET/CT has greater sensitivity, compared to CT alone, in identifying lymph node, extranodal sites and bone marrow involvement by lymphoma. Primary appendiceal lymphoma is rare and there are no clear guidelines for therapy. In the literature primary surgical resection followed by post-operative CHOP (cyclophosphamide, hydroxydoxorubicin, vincristine, prednisolone) chemotherapy showed high efficacy in patients with localized intestinal diffuse large B-cell lymphoma. However, by principle, all patients should proceed to an accurate work-up, including IHC and genetic characterization, whole body CT scan, bone marrow biopsy and a strict follow-up is certainly recommended.

Conclusion:

MCL associated with appendicitis is extremely rare. Usually manifest clinically with sign and symptoms of acute appendicitis. Obstruction of the lumen of appendix by MCL predisposes to the development of appendicitis. We present an additional appendiceal MCL before a chemotherapy treatment presenting with acute suppurate appendicitis of immunohistochemically proven primary MCL of appendix. MCL has a unique immunohistochemistry and genetic abnormality. MCL behaves as an obstructing mass in appendiceal lumen, similar to a fecalith, leading to acute suppurate appendicitis.

References:

1. Isaacson P, MacLennan KA, Subbuuswamy SG., 1984. Multiple lymphomatous polyposis of the gastrointestinal tract. *Histopathology* 8, 641-656.
2. Banks PM, Chan J, Cleary ML, Delsol G, DeWolf-Peters C, Gatter K, Grogan TM, Harris NL, Isaacson PG, Jaffe ES et al., 1992. Mantle cell lymphoma. A proposal for unification of morphologic, immunologic, and molecular data. *Am J Surg Pathol* 16, 637-640.
3. Linden M, Gopal A, Edlefsen K., 2012. Acute appendicitis in a man undergoing therapy for mantle cell lymphoma. *Case Rep Hematol* Mar 29, 2012:868151.
4. Chae M, Kumar S, Cheema M., 2015. Mantle cell lymphoma presenting as acute appendicitis. *Int J Surg Case Rep* 6C:33-5.
5. Tan KB, Tan LH, Soo R, Putti TC, Chong SM., 2006. Involvement of the appendix and palate by pleomorphic variant mantle cell lymphoma. *Leuk Lymphoma* 47, 1704-7.
6. Gaopande VL, Deshmukh SD, Shinde VC., 2015. Primary mantle cell lymphoma of appendix. *Gulf J Oncolog* 1, 25-7.
7. Shiwani MH., 2006. Primary malignant lymphoma of the appendix associated with acute appendicitis. *J Coll Phys Surg Pak* 16, 79-80.
8. Mastalier B, Deaconescu V, Elaiiah W., 2015. Multiple intestinal lymphomas. *Rom J Intern Med* 53, 73-78.
9. Pickhardt PJ, Levy AD, Rohrmann Jr CA., 2003. Non-Hodgkin's lymphoma of the appendix: clinical and CT findings with pathologic correlation. *AJR Am J Roentgenol* 178,1123-1127.
10. Agha RA, Fowler AJ, Saetta A, Barai I, Rajmohan S, Orgill DP., 2016. For the SCARE Group, The SCARE statement: consensus-based surgical case report guidelines. *Int J Surg* 34, 180-186.
11. Radha S, Afroz T, Satyanarayana G: Primary marginal zone B-cell lymphoma of appendix. *Indian J Pathol Microbiol* 2008; 51 (3): 392-394.
12. Ferraris R, Nahum M, Fornaro R., 1988. Intestinal invagination caused by primary lymphoma of the ileum. *Minerva Chir* 43, 619-623.
13. Pickhardt PJ, Levy AD, Rohrmann Jr CA., 1003. Primary neoplasms of the appendix: radiologic spectrum of disease with pathologic correlation. *Radiographics* 23, 645-662.
14. Cronin CG, Swords R., 2010. Truong MT: Clinical utility of PET/CT in lymphoma, *AJR Am J Roentgenol* 194, W91-W103.
15. Lee J, Kim WS, Kim K., 2007. Prospective clinical study of surgical resection followed by CHOP in localized intestinal diffuse large B cell lymphoma. *Leuk Res* 31,359-364.
16. Fu TY, Wang JS, Tseng HH., 2004. Primary appendiceal lymphoma presenting as perforated acute appendicitis. *J Chin Med Assoc* 67, 629-632.
17. Caristo G, Griseri G, Fornaro R, Langone A, Franceschi A, Errigo V, Ferrari C, Casaccia M, Frascio M, Schirru A., 2018. Primary lymphoma of appendix presenting as acute appendicitis: A case report. *Int J Surg Case Rep* 48,30-33.
18. Taha-Mehlitz S, Bockmeyer J, Memeti E, Nowack M, Metzger J, Gass JM., 2019. Mantle cell lymphoma-rare differential diagnosis of a tumor in the vermiform appendix. *J Surg Case Rep* 1, rjy367.
19. Ayub A, Santana-Rodriguez N, Raad W, Bhora FY. Primary appendiceal lymphoma: clinical characteristics and outcomes of 116 patients. *J Surg Res* 2017;207:174-80.

Case Number: 538

Slide Number: LP-5263

Slide View: http://www.ivp.nchu.edu.tw/slide_view.php?id=1651

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CASE HISTORY:

Signalment: 78-year-old man. .

Clinical History:

A 78-year-old man presented to our OPD of otolaryngology with the chief complaint of recurrent choking and pneumonia due to neck mass. The neck mass has been noted for many years and gradually increased in size with symptom of dysphagia, hoarseness and dyspnea. He has past history of DM and under medical treatment. There was no past history of hypertension, and CVD (cardiovascular disease). On physical examination, large anterior neck mass was noted measuring 8.5 x 7.5 x 4.5 cm

The CT scan showed large and lobulated thyroids. The right thyroid measuring 10.7 x 4.2 x 3.9 cm with nodular appearance. The left thyroid measuring 11.9 x 5.1 x 4.3 cm with nodular appearance. Under the impression of nodular goiter, he was admitted to the ward for surgical intervention. Total thyroidectomy was performed. The specimen was sent to the department of pathology for pathologic diagnosis. The specimen submitted consisted of thyroids with nodular cut surface and measuring up to 2.8 x 2.4 x 1.9 cm of the largest nodule. The thyroid nodules were grayish-brown in color and soft-elastic in consistency.

Clinical Pathology:

BUN: 18 mg/dL (6-20 mg/dL), Creatinine: 1.7 mg/dL (0.7-1.3 mg/dL), Glucose: 105 mg/dL (70-100 mg/dL), Na: 139 mmol/L (135-145 mmol/L), K: 4.5 mmol/L (3.5-5.1 mmol/L), Ca: 9.3 mg/dL (8.6-10.20 mg/dL), AST (GOT): 16 U/L (5-40 U/L), ALT (GPT): 5 U/L (5-40 U/L), RBC: $2.8 \times 10^6/\mu\text{L}$ ($4.6\text{-}6.2 \times 10^6/\mu\text{L}$), Hb: 8.4 gm/dL (14.0-18.0 gm/dL), Hct: 25.3 % (40-54%), Plt: $17.1 \times 10^4/\text{dL}$ ($15\text{-}40 \times 10^4/\text{dL}$), WBC: $5.1 \times 10^3/\mu\text{L}$ ($4.5 \times 10^3\text{-}11.0 \times 10^3/\mu\text{L}$), Lymphocyte: 11.0% (20.0-45.0%), Neutrophil: 75.8% (45.0-75.0%), Monocyte: 12.9% (0.0-9.0%), Eosinophil: 0.2% (1.0-3.0%), Basophil: 0.1% (0.0-1.0%) . T3: 0.67 ng/mL (0.80 - 2.00 ng/mL), T4: 5.59 ug/dL (5.10 - 14.10 ug/dL), Free T4: 1.16 ng/dL (0.93 - 1.70 ng/dL), TSH: 0.269 uIU/mL (0.270 - 4.200 uIU/mL)

CASE RESULT:

Histopathologic Findings:

Histopathological examination revealed thyroid gland with multiple nodules composed of proliferated thyroid follicles with irregular size and shape and lined by benign cuboidal or low columnar follicular cells. Focal papillary appearance is also noted. No significant nuclear atypia is noted. Some of the thyroid follicles contained large lakes of colloid. No significant Hürthle cell change is noted. It is compatible with nodular goiter. However, focal lymphoid cells aggregate and lymphoid follicles formation are noted with focal destruction of the thyroid follicles. The lymphoid cells are irregular in size and shape with hyperchromatic nuclei, distinct or inconspicuous nucleoli. Occasional mitosis is also noted.

Immunohistochemistry:

Sections of tissue specimen were subjected for immunohistochemical evaluation. On immunohistochemical analysis, the lymphoid cells were positive for CD20, CD10, Bcl2 and Bcl6, and negative for CD3, and Cyclin D1.

Differential diagnosis:

1. Nodular goiter with benign lymphoid tissue.
2. Chronic lymphocytic thyroiditis / Hashimoto's thyroiditis.
3. Thyroid lymphoma.

Diagnosis: Follicular lymphoma in thyroid of nodular goiter.

Comments:

Lymphoma involving the thyroid gland is uncommon, and may do so as primary, localized disease, as the first clinical presentation of disseminated lymphoma, or rarely as secondary involvement in patients with known lymphoma at other sites.

Lymphomas are divided into two general categories, Hodgkin lymphoma and non-Hodgkin lymphoma (NHL). NHL is far more common than Hodgkin lymphoma.

Of instances of NHL, 28% are FL. DLBCL is the most common lymphoma in the US, and FL is the second most common. FL is typically a slow-growing or indolent form of NHL and a subtype of B-cell lymphoma. The median age at diagnosis of FL is 60 to 65 years, displaying a broad range of variation and only 4% are younger than age 40 years at time of diagnosis. Females are somewhat more often affected than males. Common symptoms of follicular lymphoma include enlargement of the lymph nodes, fatigue, night sweats, and weight loss. Often, patients with follicular lymphoma have no obvious symptoms of the disease at diagnosis. Extralymphatic infiltrations (e.g. ENT regions, gastrointestinal tract) might occur. Thyroid is rarely involved by systemic FL.

FL develops from follicle B cells, including both centrocytes (smaller) and centroblasts (larger) types of cells. Although the genetic hallmarks involved in FL have been extensively studied, the pathogenesis is not completely understood. In more than 90% of FLs, neoplastic follicle centre cells show strong aberrant expression of the anti-apoptotic protein Bcl-2, in most instances as a result of a t(14;18)(q32;q21).

Histologically, FLs usually grow with a predominantly follicular pattern and a variable, but smaller, interfollicular component. The neoplastic follicles were separated by an extrafollicular population of small lymphocytes together with numerous slightly larger "centrocyte-like" cells with slightly irregular euchromatic nuclei and scant cytoplasm. Establishing FL grade requires attention to the proportion

of centroblasts present. Aggressive FL has more centroblasts, and the higher number of these cells, the higher the grade of the FL, with grade 3 being the highest assignable grade. In FL, the neoplastic cells expressed CD20, confirming the B cell phenotype and highlighting both the extensive interfollicular infiltrate and the lymphoepithelial lesions. In most cases of FL, the tumor cells expressed both Bcl-6 and CD10, and some cases, the tumor cells show positive CD10 and negative Bcl-6. In some cases (most of them are grade 3), the tumor cells are positive for Bcl-6 but negative for CD10.

Primary thyroid lymphoma (PTL) is a rare malignancy, accounting for 5% of thyroid malignancies and 2% of extranodal lymphomas, with an annual estimated incidence of 2 per 1 million persons. The most common subtype of PTL is diffuse large B-cell lymphoma (DLBCL) accounting for more than 50% of cases, followed by mucosa-associated lymphoid tissue (MALT) lymphoma, which represents about 23% of cases. Pure MALT lymphomas tend to follow a more indolent course than the more aggressive DLBCL. MALT lymphoma can transform into DLBCL, with both tumors occurring in the same gland as a result. Rarer subtypes of PTL include follicular lymphoma (FL) (12%), Hodgkin's lymphoma (7%), small lymphocytic lymphoma (4%), Burkitt's lymphoma (4%), and T-cell lymphoma, mantle cell lymphoma, and lymphoblastic lymphoma, each accounting for 1% of cases. PTL occurs approximately two times more frequently in women (68%) than in men (32%), and typically affects those over 50 years of age (mean age: 65.8 years).

The majority of PTLs arise on a background of chronic lymphocytic / Hashimoto's thyroiditis, the acquired auto-reactive lymphoid infiltrate of which is thought to provide the substrate for

lymphoma development. Patients with Hashimoto's thyroiditis have a 60-80-fold increased risk of thyroid lymphoma. Many early investigators, using previous classification schemes, considered most PTLs to be of follicle center cell origin. Evidence of chronic lymphocytic thyroiditis was present in most cases (60%) of FL, suggesting that FL of the thyroid gland may also arise from the organized lymphoid tissue of thyroiditis. The transformation from thyroiditis to PTL occurs in about 0.5% of cases. Although most thyroiditis cases do not proceed to lymphoma, most cases of lymphoma do arise in a background of thyroiditis, which is estimated to occur in approximately 60–90% of PTL cases.

Treatment and prognosis of PTL depend upon the histology and stage of the tumor at diagnosis. Traditionally, surgery and radiation therapy (RT) were considered the standard treatment for PTL. However, with high relapse rates, low survival rates, and the realization that thyroid lymphomas are sensitive to chemotherapy and radiation, surgery now plays a limited role. Given the sensitivity of PTL to radiation and chemotherapy, these remain the mainstay of treatment. Localized, indolent lymphomas can be treated with radiation alone, whereas disseminated indolent lymphoma or aggressive histological subtypes should be treated with chemotherapy. Surgery can be considered in the setting of compressive symptoms or airway compromise. Patients should be monitored at regular intervals for relapse. A favorable response to treatment is initially widespread across cases of FL, but there is no cure for the disease. Relapse is common, as is the likely progression of FL.

For PTL, the median overall survival (OS) for all cases was 9.3 years, 5-year OS was 66%. When stratified by stage, the 5-year disease-specific survival was 86, 81, and 64% for stage I, II, and III/VI disease, respectively. Stratified by histological subtype, the 5-year disease-specific survival rate was 75% for DLBCL, 96% for MALT lymphoma, 87% for FL, 86% for small lymphocytic lymphoma, and 83% for other NHL.

Conclusion:

There are two types FL presenting in the thyroid gland. One with features typical of systemic FL and a tendency to disseminated disease, and another with localized disease and features not characteristic of systemic FL but instead similar to the features of FL occurring at some other extranodal sites. Follicular lymphoma is usually not considered to be curable, but more of a chronic disease. Patients can live for many years with this form of lymphoma

References:

1. Hart S, Horsman JM, Radstone CR, Hancock H, Goepel JR, Hancock BW: Localised extranodal lymphoma of the head and neck: the Sheffield Lymphoma Group experience (1971–2000). *Clin Oncol* 2004, 16(3):186–192.
2. Graff-Baker A, Sosa JA, Roman SA: Primary thyroid lymphoma: a review of recent developments in diagnosis and histology-driven treatment. *Curr Opin Oncol* 2010, 22(1):17–22.
3. Matsuzuka F, Miyauchi A, Katayama S, Narabayashi I, Ikeda H, Kuma K, Sugawara M: Clinical aspects of primary thyroid lymphoma: diagnosis and treatment based on our experience of 119 cases. *Thyroid* 1993, 3(2):93–99.
4. Wang SA, Rahemtullah A, Faquin WC, Roepke J, Harris NL, Hasserjian RP: Hodgkin's lymphoma of the thyroid: a clinicopathologic study of five cases and review of the literature. *Mod Pathol* 2005, 18(12):1577–1584.
5. Derringer GA, Thompson LD, Frommelt RA, Bijwaard KE, Heffess CS, Abbondanzo SL: Malignant lymphoma of the thyroid gland: a clinicopathologic study of 108 cases. *Am J Surg Pathol* 2000, 24(5):623–639.
6. Pedersen RK, Pedersen NT: Primary non-Hodgkin's lymphoma of the thyroid gland: a population based study. *Histopathology* 1996, 28(1):25–32.
7. Ochs RC, Bagg A: Molecular genetic characterization of lymphoma: application to cytology diagnosis. *Diagn Cytopathol* 2012, 40(6):542–555.
8. Watanabe N, Noh JY, Narimatsu H, Takeuchi K, Yamaguchi T, Kameyama K, Kobayashi K, Kami M, Kubo A, Kunii Y, Shimizu T, Mukasa K, Otsuka F, Miyara A, Minagawa A, Ito K: Clinicopathological features of 171 cases of primary thyroid lymphoma: a long-term study involving 24553 patients with Hashimoto's disease. *Br J Haematol* 2011, 153(2):236–243.

9. Graff-Baker A, Roman SA, Thomas DC, Udelsman R, Sosa JA: Prognosis of primary thyroid lymphoma: demographic, clinical, and pathologic predictors of survival in 1,408 cases. *Surgery* 2009, 146(6):1105–1115.
10. Sarinah B, Hisham AN: Primary lymphoma of the thyroid: diagnostic and therapeutic considerations. *Asian J Surg* 2010, 33(1):20–24.
11. Skarsgard ED, Connors JM, Robins RE: A current analysis of primary lymphoma of the thyroid. *Arch Surg* 1991, 126(10):1199–1203. discussion 1203–4.
12. Klyachkin ML, Schwartz RW, Cibull M, Munn RK, Regine WF, Kenady DE, McGrath PC, Sloan DA: Thyroid lymphoma: is there a role for surgery? *Am Surg* 1998, 64(3):234–238.
13. Hwang YC, Kim TY, Kim WB, Shong YK, Yi KH, Shong M, Jo YS, Kim WS, Chung JH: Clinical characteristics of primary thyroid lymphoma in Koreans. *Endocr J* 2009, 56(3):399–405.
14. Aozasa K, Inoue A, Tajima K, Miyauchi A, Matsuzuka F, Kuma K: Malignant lymphomas of the thyroid gland. Analysis of 79 patients with emphasis on histologic prognostic factors. *Cancer* 1986, 58(1):100–104.

Case Number: 539

Slide Number: S2019_2436

Slide View: http://www.ivp.nchu.edu.tw/slide_view.php?id=1652

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CASE HISTORY:

Signalment: A 5-year-old, spayed female, exotic shorthair, cat had two masses at Rt. and Lt. medial canthus. They exhibited pink to reddish color and uneven surface.

Gross Findings:

The submitted specimens were two small conjunctival biopsies taken from Rt. and Lt. medial canthus. Both of them shared similar gross features with uneven surface.

CASE RESULT:

Histopathological Findings:

Microscopically, the conjunctival epithelium is significantly proliferative with papillary and exophytic growth. The substantia propria shows marked edema, hyperemia and is infiltrated by large numbers of inflammatory cells, mainly plasma cells, followed by lymphocytes, eosinophils, neutrophils and mast cells. Frequently, there are scatters of large, round cells containing intracytoplasmic granules in the conjunctival epithelium. The epitheliotropic cells are positive for Toluidine blue histochemistry, suggestive of mast cells.

Pathological Diagnosis: Epitheliotropic mastocytic conjunctivitis, both sides of medial canthus, eyes

Differential diagnosis:

4. Squamous papilloma in conjunctiva
5. Conjunctival mast cell tumor

Discussion:

Feline epitheliotropic mastocytic conjunctivitis, synonymous with feline conjunctival papillary mastocytosis⁴, is an uncommon disease in cats. The underlying cause of the disease remains unclear, but allergies seems to play important roles. Grossly, the conjunctiva becomes hyperemia, edematous and has solitary, nodular proliferations with variably ulcerative lesions. The main affected locations of epitheliotropic mastocytic conjunctivitis are nictitating membrane, followed by palpebral and bulbar conjunctiva². Most of them are unilateral, but bilateral (the present case) is possible. Histologically, epitheliotropic mastocytic conjunctivitis presents special and unique features, including papillary/exophytic growth of conjunctival epithelium, mast cell epitheliotropism, and mixed inflammation in conjunctival substantia propria.

In human medicine, the allergic conjunctivitis includes seasonal allergic conjunctivitis (SAC), vernal keratoconjunctivitis (VKC), perennial allergic conjunctivitis (PAC), and atopic keratoconjunctivitis (AKC)⁵. VKC has several similarities to epitheliotropic mastocytic conjunctivitis, such as affected regions, gross, and histopathological appearance. VKC is more commonly seen in the tropical countries, young people, and appears to be induced by nonspecific stimuli, such as wind, dust, and sunlight. It is a chronic allergic inflammation mediated mainly by Th2-lymphocyte; in a complex pathogenesis have a role also the overexpression of mast cells, eosinophils, neutrophils, Th2-derived cytokines, chemokines, adhesion molecules, growth factors, fibroblast and lymphocytes⁵.

Epitheliotropic mastocytic conjunctivitis should be differentiated with some eyelid neoplasms, including conjunctival mast cell tumor (MCT) and squamous papilloma. MCTs are the second common neoplasms in feline eyelids⁸. The average age of conjunctival MCT is 6.5 years, which is significantly lower than other types of feline MCTs. Mast cell epitheliotropism is also observed in a

few feline MCTs, especially MCTs occurring at mucocutaneous junctions⁶. Squamous papilloma exhibits similar gross and histopathological appearances with exophytic and papilliferous epithelium¹. However, squamous papillomas are rarely reported in casts and epitheliotropic mast cells cannot be found histologically.

Recent studies revealed about 10-27% of cats with conjunctivitis/ keratoconjunctivitis are positive for feline herpes-1 virus (FHV-1). Viral DNA was even detected in 54.5% of cats with eosinophilic keratoconjunctivitis^{3,7}. The medial conjunctival plaque-like edematous lesions were also associated with herpesvirus-1 infection in a captive North American cheetah. However, only one case was detected for FHV-1 in 15 cats diagnosed as epitheliotropic mastocytic conjunctivitis². The relationship between epitheliotropic mastocytic conjunctivitis and FHV-1 infection is still undetermined.

In conclusion, epitheliotropic mastocytic conjunctivitis is a unique proliferative disease in cats. Although the etiology of the disease is not well known, it is a hypersensitivity reaction to unknown stimuli. Epitheliotropic mastocytic conjunctivitis has characteristic gross and histology features. The prognosis of the condition is generally good to excellent and recurrence is uncommonly occurred. Most of them can be cured after surgical removal. Besides, medical treatment with long-term topical therapy, such as tacrolimus or corticosteroid, is also an effective way for controlling the disease².

References:

1. Beckwith-Cohen, B., et al. (2015). "Squamous Papillomas of the Conjunctiva in Dogs: A Condition Not Associated With Papillomavirus Infection." *Veterinary Pathology* 52: 676-680.
2. Beckwith-Cohen, B., et al. (2017). "Feline Epitheliotropic Mastocytic Conjunctivitis in 15 Cats." *Veterinary Pathology* 54(1): 141-146.
3. Dean, E. and V. Meunier (2013). "Feline eosinophilic keratoconjunctivitis: a retrospective study of 45 cases (56 eyes)." *Journal of Feline Medicine and Surgery* 15(8): 661-666.
4. Dubielzig, R. R., et al. (2010). Chapter 7 - Diseases of the eyelids and conjunctiva. *Veterinary Ocular Pathology*. R. R. Dubielzig, K. Ketring, G. J. McLellan and D. M. Albert. Edinburgh, W.B. Saunders: 143-199.
5. La Rosa, M., et al. (2013). "Allergic conjunctivitis: a comprehensive review of the literature." *Italian Journal of Pediatrics* 39(1): 18.
6. Lamm, C. G., et al. (2009). "Disseminated Cutaneous Mast Cell Tumors with Epitheliotropism and Systemic Mastocytosis in a Domestic Cat." *Journal of Veterinary Diagnostic Investigation* 21(5): 710-715.
7. Larocca, R. D. (2000). "Eosinophilic conjunctivitis, herpes virus and mast cell tumor of the third eyelid in a cat." *Vet Ophthalmol* 3(4): 221-225.
8. Newkirk, K. M., & Rohrbach, B. W. (2009). A Retrospective Study of Eyelid Tumors from 43 Cats. *Veterinary Pathology*, 46(5): 916–927.

Case Number: 540

Slide Number: NTU2019-1602C

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CASE HISTORY:

Signalment: Ring-tailed lemur (陸頌), 5-year-old, female

The patient showed depression and anorexia on June 23th, 2019, and was hospitalized the next day. The hematological exam showed markedly elevated AST, ALT, total bilirubin and moderately elevated BUN. However, the clinical signs did not improve during hospitalization and the patient passed away on June 27th, 2019. She had 3 cagemates and one of her cagemates showed sudden death on June 23th, and the others also passed away one after another within 5 days. Toxicosis and leptospirosis are highly suspected.

CASE RESULT:

Gross Findings:

On necropsy, there was a small amount of straw-colored and translucent fluid in the abdominal and the thoracic cavity. The liver became diffusely yellowish and was markedly enlarged, containing disseminated pinpoint white foci throughout the sectioned parenchyma. The spleen was severely swollen. The lung was diffusely dark red to mottled and wet, with lots of foamy fluid filling the trachea and bronchi. The mesenteric lymph nodes were swollen, containing caseous cut surfaces. Other organs showed no remarkable gross findings.

Histopathological Findings:

Lymphoid organs (spleen, mesenteric, pancreatic and hilar lymph nodes): Multifocal to coalescent irregular sized necrotic foci composed of cell debris, fibrinous exudate, neutrophils and red blood cells disseminate throughout the splenic parenchyma, with numerous intralesional scattered extracellular or intracellular 2-3 um, round to crescent-shaped and basophilic tachyzoites, and marked lymphoid depletion. Extensive coagulative necrosis effaces the nodal architecture of the lymph nodes.

Adrenal glands: Randomly within all layers of the cortex and occasionally extending into the medulla are multifocal areas of lytic necrosis. Within these necrotic areas are few aggregates of intracytoplasmic and extracellular basophilic tachyzoites.

Liver: Irregular foci of coagulative necrosis are scattered diffusely and randomly throughout the lobules. Occasionally, aggregates of tachyzoites are presented within macrophages or hepatocytes.

Small intestines: There is multifocal transmural coagulative necrosis with numerous intralesional scattered tachyzoites.

Heart: There is multifocal myocardial necrosis composed of fragmented, pyknotic and hypereosinophilic myofibers, with mild neutrophilic and histiocytic infiltration.

Lung: Diffusely, the alveoli are congested and contain variable amounts of fibrin, red blood cells and foamy macrophages. The perivascular spaces are markedly expanded by loosely arranged collagenous connective tissue.

Pathological Diagnosis:

1. Splenitis, necrotizing, multifocal to coalescing, acute, severe, with extra- and intracytoplasmic apicomplexan tachyzoites and lymphoid depletion, spleen
2. Lymphadenitis, necrotizing, multifocal to coalescing, acute, severe, with extra- and intracytoplasmic apicomplexan tachyzoites, mesenteric, pancreatic and hilar lymph nodes
3. Hepatitis, necrotizing, multifocal to coalescing, acute, severe, with extra- and intracytoplasmic apicomplexan tachyzoites, liver
4. Adrenalitis, necrotizing, multifocal, acute, moderate, with extra- and intracytoplasmic apicomplexan tachyzoites, adrenal glands
5. Enteritis, necrotizing, multifocal and transmural, moderate to severe, with extra- and

- intracytoplasmic apicomplexan tachyzoites, small intestines
6. Myocarditis, necrotizing, multifocal, acute, moderate, with vasculitis and fibrinoid necrosis, heart
 7. Edema, diffuse, acute, moderate to severe, lung

Differential diagnoses:

6. Toxoplasmosis
7. Salmonellosis
8. Leptospirosis
9. Toxicosis
10. Herpesvirus infection

Laboratory results:

Fresh tissue of liver and spleen were submitted for PCR for REP-529 gene of *Toxoplasma gondii*, and results were both positive. Tissue swab of liver was submitted for bacterial culture and no significant bacterial growth was observed.

Immunohistochemistry:

Multiple organs including heart, liver, spleen, lung, lymph nodes, adrenal glands and intestines reveal variable amounts of extracellular or intracytoplasmic positive signals for *Toxoplasma gondii*.

Condition (etiology): Systemic toxoplasmosis

Discussion:

At the beginning of this outbreak, toxicosis of mushroom or unknown toxins was highly suspected because of the acute disease process, the nonspecific clinical signs and the same living environment (in the same cage) of these patients. Elevated liver and renal function index indicated acute liver and renal damage which were compatible with possible toxicosis and were also reminiscent of leptospirosis. Necropsy of these four ring-tailed lemurs was performed and systemic toxoplasmosis was confirmed as the cause of death.

The speculations of toxicosis and leptospirosis were reasonable. Depression, anorexia, and sudden death were common clinical features of poisoning. However, there was no possible source of the toxin except newly-growth mushrooms after the heavy rain of several days. Leptospirosis is a widespread zoonotic disease that may result in fatal illness as the result of renal, hepatic, and pulmonary diseases in both humans and animals. Although monkeys are susceptible to experimental leptospirosis, naturally acquired, acute leptospirosis in non-human primates is uncommon. An outbreak of severe leptospirosis manifesting as jaundice and pulmonary hemorrhage was reported in capuchin monkeys housed in a Colombia wildlife rehabilitation center in 2007. The majority of these monkeys showed depression, emaciation, icterus and lymphadenomegaly clinically.

Back to our cases, though the clinical signs and the gross lesions seem similar to those in leptospirosis, the presence of severe coagulative necrotizing lesions in multiple organs with the presence of tachyzoites leads to the final diagnosis of systemic toxoplasmosis. The present case reminds us that lemurs (and New World monkeys) are highly susceptible to toxoplasmosis, and it is usually acute and fatal. The present case also showed typical pathological lesions of toxoplasmosis such as coagulative necrosis in multiple organs, especially lymphoid organs, hepatitis, enteritis, and pulmonary edema.

Contamination of the protozoa in the environment is highly suspected since several cases of toxoplasmosis in different species (western crowned pigeon, prairie dogs, and meerkats) had been identified recently. Free-roaming cats defecating near or within the enclosures could serve as a potential source of infection, as they might contaminate wood chips intended for bedding materials or fruits and vegetables prepared for feeding. Besides, the keepers' movements among areas might

also be a potential route for pathogen transmission. Prevention of exposure of these susceptible species to felid, felid feces, and possible contaminated row vegetables, and strict hygiene practice is recommended to reduce the risk of infection. Considering the potential zoonotic risks, the biosafety of personnel should be concerned.

To sum up, new world monkeys, lemurs, meerkats, and marsupials are highly susceptible to toxoplasmosis. In lemurs, although there are several possible causes of sudden death, toxoplasmosis should be listed in differentials and pathological examination is required to confirm the definite diagnosis.

References:

1. de Camps, S., Dubey, J. P., & Saville, W. J. (2008). Seroepidemiology of *Toxoplasma gondii* in zoo animals in selected zoos in the midwestern United States. *J Parasitol*, *94*(3), 648-653.
2. Juan-Salles, C., Mainez, M., Marco, A., & Sanchis, A. M. (2011). Localized toxoplasmosis in a ring-tailed lemur (*Lemur catta*) causing placentitis, stillbirths, and disseminated fetal infection. *J Vet Diagn Invest*, *23*(5), 1041-1045.
3. Miller, D. S., Sauter, M. L., Hunter-Ishikawa, M., Fish, K., Culbertson, H., Cuzzo, P. F., . . . Lappin, M. R. (2007). Biomedical evaluation of free-ranging ring-tailed lemurs (*Lemur catta*) in three habitats at the Beza Mahafaly Special Reserve, Madagascar. *J Zoo Wildl Med*, *38*(2), 201-216.
4. Rajeev, S., Conan, A., Pratt, N., Beierschmitt, A., & Palmour, R. (2017). High *Leptospira* seroprevalence in captive and wild-caught vervet monkeys (*Chlorocebus sabeus*) on the Caribbean island of Saint Kitts. *J Vet Diagn Invest*, *29*(6), 930-934.
5. Spencer, J. A., Joiner, K. S., Hilton, C. D., Dubey, J. P., Toivio-Kinnucan, M., Minc, J. K., & Blagburn, B. L. (2004). Disseminated toxoplasmosis in a captive ring-tailed lemur (*Lemur catta*). *J Parasitol*, *90*(4), 904-906.
6. Szonyi, B., Agudelo-Florez, P., Ramirez, M., Moreno, N., & Ko, A. I. (2011). An outbreak of severe leptospirosis in capuchin (*Cebus*) monkeys. *Vet J*, *188*(2), 237-239.
7. Yabsley, M. J., Jordan, C. N., Mitchell, S. M., Norton, T. M., & Lindsay, D. S. (2007). Seroprevalence of *Toxoplasma gondii*, *Sarcocystis neurona*, and *Encephalitozoon cuniculi* in three species of lemurs from St. Catherines Island, GA, USA. *Vet Parasitol*, *144*(1-2), 28-32.

Case Number: 541

Slide Number: NTU2018-2886

Slide View: http://www.ivp.nchu.edu.tw/slide_view.php?id=1659

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Signalment: An 8-year-old castrated male poodle

Clinical History:

An 8-year-old castrated male poodle presented to a local veterinary hospital with a 2-week history of progressive skin problem initially started on foot pads and later on involved the ventral abdomen, trunk and facial area. Erythema, ulceration to crust formation with odor exudation were noted variably and depigmentation as well as swelling were observed on nasal planum. The patient exhibited decreased activity, large respiratory sound and clear nasal discharge recently. Blood examination revealed hypoalbuminemia (2.2 g/dL, ref. 2.7-4.4 g/dL), elevated GGT and ALKP at the time of biopsy. Prior to the first presentation, the patient was administered with oral medication for one week but the prescription record was not retrievable.

Gross Findings:

The received punched skin tissues obtained from the right footpad and right trunk were pale to gray and firm to rubbery; the dermis was slightly thickened on cut section.

Histopathological Findings:

Extensively expanding and obliterating the dermis, and extending to the subcutis are numerous 10 to 20 micrometers, round to polygonal organisms admixed with abundant karyorrhectic cell debris and infiltrates of macrophages (some multinucleated), neutrophils and few eosinophils. The organisms have a refractile wall stained positively with PAS and Jones' methenamine silver (JMS) stains. They are unicellular but may appear morula-like by vivid endosporulation. Occasionally, the organisms are phagocytosed by macrophages or multinucleated giant cells and in some areas, aggregates of empty theca and free daughter cells are noted. Hemorrhage and lymphovascular invasion are also seen.

Differential diagnosis:

1. Protothecosis
2. Chlorellosis
3. Coccidioidomycosis
4. Rhinosporidiosis

Diagnosis: Protothecosis, skin biopsies from the right footpad and right trunk

Discussion:

Based on the clinical findings of the skin lesions, the tentative clinical diagnosis was an autoimmune disease with systemic lupus erythematosus and pemphigus vulgaris being listed in the top differentials. However, the histological findings of severe pyogranulomatous dermatitis and cellulitis with myriad intralesional algae lacking distinct chloroplasts were consistent with protothecosis. Moreover, considering the deteriorated body condition as suggested by the clinical signs and results of hematology, a disseminated disease is highly concerned.

Prototheca spp. are ubiquitous, saprophytic achlorophyllous algae widely distributed globally and have the potential to cause diseases in both humans and domestic animals. To date, the main known pathogenic species are *P. zopfii* and *P. wickerhamii*. Based on the host and pathogen species, the clinical presentations vary from localized form (in humans, cows and cats) to fatal disseminated disease (often seen in dogs). Infection with *Prototheca* spp. mainly results from ingestion or traumatic inoculation. In disseminated diseases, the algae spreads via hematogenous or lymphatic routes and consequent clinical signs depend on the organs involved. In dogs, gastrointestinal signs, particularly

colitis with chronic mucoid to bloody diarrhea, are most often encountered followed by visual and neurological deficits. Notably, although common in nature, *Prototheca* spp. rarely causes illness either in human or in domestic animals. To this end, host immunity is likely of importance in the establish and progression of protothecosis. In this case, considering the patient's age, unknown medication history and the great quantity of the algae in examined sections, an underlying immunosuppression is strongly suspected.

Diagnosis of protothecosis can be made by microscopic examination of representative tissues or fluid specimens. At clinic, it is possible to achieve a tentative diagnosis by identifying *Prototheca* spp. with appropriate cytological technique and preparation. Morphologically, the algae resemble *Chlorella* spp. and fungi exhibiting endosporulation. To further confirm their identity or speciation, culture and molecular diagnostics are needed.

To date, effective treatment for canine disseminated protothecosis is still lacking and a grave prognosis is always anticipated.

References:

1. 李昭代, 盧綉宜, 蕭中琦。Cutaneous protothecosis 之案例。台灣醫檢會報 25 :9-13, 2010。
2. 許家達, 劉廣宏, 沈偉強, 嚴一峰, 簡耀君, 劉振軒。病例報告: *Prototheca wickerhamii* 引起犬皮膚行圓壁藻症一例。台灣獸醫誌 39: 50-58, 2013。
3. Carlton WW, Austin L. Ocular protothecosis in a dog. Vet Pathol. 10:274-280, 1973.
4. Hollingsworth SR. Canine protothecosis. Vet Clin North Am Small Anim Pract. 30:1091-1101, 2000.
5. Hirose N, Nishimura K, Inoue-Sakamoto M, Masuda M. Ribosomal internal transcribed spacer of *prototheca wickerhamii* has characteristic structure useful for identification and genotyping. *PLoS One*. 8: e81223. 2013.
6. Lass-Flörl C, Mayr A. Human protothecosis. Clin Microbiol Rev. 20:230-242, 2007.
7. Macedo JT, Riet-Correa F, Dantas AF, Simões SV. Cutaneous and nasal protothecosis in a goat. Vet Pathol. 45:352-354, 2008.
8. Salvadori C, Gandini G, Ballarini A, Cantile C. Protothecal granulomatous meningoencephalitis in a dog. J Small Anim Pract. 49:531-535, 2008.
9. Schultze AE, Ring RD, Morgan RV, Patton CS. Clinical, cytologic and histopathologic manifestations of protothecosis in two dogs. Vet Ophthalmol. 1:239-243, 1998.
10. Stenner VJ, Mackay B, King T, Barrs VR, Irwin P, Abraham L, Swift N, Langer N, Bernays M, Hampson E, Martin P, Krockenberger MB, Bosward K, Latter M, Malik R. Protothecosis in 17 Australian dogs and a review of the canine literature. Med Mycol. 45:249-266, 2007.

Case Number: 530

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CASE HISTORY:

Signalment: A 11-year-old, castrated male, Maltese

The animal presented to the local veterinary hospital because of a mass on right mandibular body. The mass grew quickly, and X-ray showed bone lysis at that area. Total hemimandibulectomy was performed on October 17 2018 and submitted for histopathological examination.

Gross Findings:

There was a globoid mass effacing canine teeth and premolar tooth at Rt. mandible. The mass was poorly demarcated and solid, and bony structures were effaced. The cut sections of the mass revealed multiple variably-sized cystic structures.

CASE RESULT:

Histopathological Findings:

Elevating the ulcerative mucosa, expanding the lamina propria and effacing the teeth and bone is a non-encapsulated neoplasm, which is composed of neoplastic odontogenic epithelium accompanied with wide accumulation of eosinophilic to amorphilic, amorphous, hyaline to waxy, weakly birefringent substance (amyloid) and multifocally-distributed deep basophilic, flecks of mineralization. The neoplastic cells are stellate and reticular in shapes, arranged in small islands and short cords. Frequently, the neoplastic cells become clustered, distinctly-bordered, and polygonal, having hypereosinophilic cytoplasm and intracytoplasmic globules of keratins (squamous differentiation). The neoplastic cells generally have moderate to scant cytoplasm and an oval to round nuclei with small distinct nucleoli. Mitosis is rare. The margins of the mandibulectomy and blood vessels are free of neoplastic cells. Under the Congo red staining, amyloid is stained dull-brick red and has an apple-green birefringence under polarized light.

Pathological Diagnosis: Amyloid-producing odontogenic tumor

Differential diagnosis:

11. Calcifying epithelial odontogenic tumor (CEOT)
12. Ameloblastoma
13. Acanthomatous ameloblastoma

Discussion:

Amyloid-producing odontogenic tumor (APOT) is a rare neoplasm originated from odontogenic epithelium associated with extracellular amyloid deposition. There are some reports of APOT in dogs and cats, and fewer in other animal species such as Bengal tiger and goat.

In veterinary medicine, APOT was previously named as calcifying epithelial odontogenic tumor (CEOT) because of the suggested similarity to those of human CEOT. They are all characterized by odontogenic epithelial proliferation with or without mineralization in the stroma and deposition of amyloid materials. However, the neoplastic epithelial cells in CEOT are arranged in sheets and are eosinophilic with nuclear pleomorphism. In APOT, the basal cells are palisading with the presence of stellate reticulum, which has not been shown in human CEOT. Additionally, the immunohistochemistry (IHC) staining characteristic of amyloid in APOT is different from CEOT. Some studies have proven that the amyloid and the neoplastic cells in APOT are derived from ameloblast on the basis of the reactivity to the antibodies of ameloblastin, sheathlin, and amelogenin. As a result, APOT would more properly be named as canine amyloid-producing ameloblastoma (APA).

Epithelial odontogenic tumor can be divided into two groups based on the inductive interaction between dental epithelium and mesenchyme. Ameloblastoma, acanthomatous ameloblastoma, CEOT,

and APOT are considered as non-inductive; while ameloblastic fibro-odontoma, odontoameloblastoma, ameloblastic fibroma, complex odontoma, and compound odontoma are considered to be inductive due to the evidence of mesenchyme induction. However, an amyloid-producing odontoameloblastoma, with presence of ectomesenchymal components including enamel and dentin, has been reported in a black-tailed prairie dog.

Generally, APOTs are a morphologically benign tumors but with malignant behaviors because of the feature of locally extensive invasion to the bone. No metastasis has been reported in APOTs, but tumor recurrence was shown in one case following surgical excision. The current case shows typical bone lysis to the mandibular bone clinically. So far, the patient is in good condition after the surgical excision.

References:

1. Gardner, D., Dubielzig, R. & McGee, E. The so-called calcifying epithelial odontogenic tumour in dogs and cats (amyloid-producing odontogenic tumour). *Journal of comparative pathology* 111, 221-230 (1994).
2. Hirayama, K., et al. Amyloid-Producing Odontogenic Tumors of the Facial Skin in Three Cats. *Vet Pathol* 54, 218-221 (2017).
3. Hirayama, K., et al. Biochemical and immunohistochemical characterization of the amyloid in canine amyloid-producing odontogenic tumor. *Vet Pathol* 47, 915-922 (2010).
4. Izzati, U.Z., Hidaka, Y., Hirai, T. & Yamaguchi, R. Immunohistochemical Profile of Ameloblastic Carcinoma Arising from an Amyloid-Producing Odontogenic Tumour in a Miniature Dachshund. *J Comp Pathol* 166, 54-58 (2019).
5. Kang, M.S., et al. Amyloid-producing odontogenic tumour (calcifying epithelial odontogenic tumour) in the mandible of a Bengal tiger (*Panthera tigris tigris*). *J Comp Pathol* 134, 236-240 (2006).
6. Kok, M.K., et al. Amyloid-producing Odontoameloblastoma in a Black-tailed Prairie Dog (*Cynomys ludovicianus*). *J Comp Pathol* 159, 26-30 (2018).
7. Poomsawat, S. & Punyasingh, J.J.J.o.m.h. Calcifying epithelial odontogenic tumor: an immunohistochemical case study. 38, 103-109 (2007).
8. Tsai, Y.-C., et al. Amyloid-producing odontogenic tumor and its immunohistochemical characterization in a Shih Tzu dog. *Veterinary pathology* 44, 233-236 (2007).

中華民國比較病理學會章程

第一章 總則

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

第二章 會員

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

第三章 組織及職員

- 第十二條 本會以會員大會為最高權力機構。
- 第十三條 會員大會之職權如下：
一、 訂定與變更章程。
二、 選舉及罷免理事、監事。
三、 議決入會費、常年會費、事業費及會員捐款之方式。
四、 議決年度工作計畫、報告、預算及決算。
五、 議決會員之除名處置。
六、 議決財產之處分。
七、 議決本會之解散。
八、 議決與會員權利義務有關之其他重大事項。
前項第八款重大事項之範圍由理事會訂定之。
- 第十四條 本會置理事十五人，監事五人，由會員選舉之，分別成立理事會、監事會。選舉前項理事、監事時，依計票情形得同時選出候補理事五人，候補監事一人，遇理事或監事出缺時，分別依序遞補之。
本屆理事會得提出下屆理事及監事候選人參考名單。
- 第十五條 理事會之職權如下：
一、 審定會員之資格。
二、 選舉及罷免常務理事及理事長。
三、 議決理事、常務理事及理事長之辭職。
四、 聘免工作人員。
五、 擬訂年度工作計畫、報告、預算及決算。
六、 其他應執行事項。
- 第十六條 理監事置常務理事五人，由理事互選之，並由理事就常務理事中選舉一人為理事長。
理事長對內綜理監督會議，對外代表本會，並擔任會員大會、理事會主席。
理事長因事不能執行職務時，應指定常務理事一人代理之，未指定或不能指定時，由常務理事互推一人代理之。
理事長或常務理事出缺時，應於一個月內補選之。
- 第十七條 監事會之職權如左：
一、 監察理事會工作之執行。
二、 審核年度決算。
三、 選舉及罷免常務監事。
四、 議決監事及常務監事之辭職。
五、 其他應監察事項。
- 第十八條 監事會置常務監事一人，由監事互選之，監察日常會務，並擔任監事會主席。
常務監事因事不能執行職務時，應指定監事一人代理之，未指定或不能指定時，由監事互推一人代理之。監事會主席（常務監事）出缺時，應於一個月內補選之。
- 第十九條 理事、監事均為無給職，任期三年，連選得連任。理事長之

- 連任以一次為限。
- 第二十條 理事、監事有下列情事之一者，應即解任：
一、喪失會員資格。
二、因故辭職經理事會或監事會決議通過者。
三、被罷免或撤免者。
四、受停權處分期間逾任期二分之一者。
- 第二十一條 本會置秘書長一人，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

108 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二次會員大會於 108 年 4 月 21 日國軍桃園總醫院。

2. 第八屆理監事會議

- i. 第八屆第七次理監事會議於 108 年 4 月 21 日於衛國軍桃園總醫院召開。
- ii. 第八屆第八次理監事會議於 108 年 8 月 10 日於國立臺灣大學獸醫專業學院召開。
- iii. 第八屆第九次理監事會議於 108 年 12 月 14 日於臺北市立動物園召開。

3. 舉辦學術研討會

- i. 第 75 次比較病理研討會於 108 年 4 月 21 日於衛國軍桃園總醫院召開。
- ii. 第 76 次比較病理研討會於 108 年 8 月 10 日於國立臺灣大學獸醫專業學院召開。
- iii. 第 77 次比較病理研討會於 108 年 12 月 14 日於臺北市立動物園召開。

三、舉辦學術演講

1. 第 75 次比較病理研討會邀請專題演講:三軍總醫院病理部高鴻偉主任，題目：Overview of Blistering Disorders of Human
2. 第 76 次比較病理研討會邀請專題演講:臺北醫學大學病理學科林永和副教授，題目：A tooth life span course with any possible changes
3. 第 77 次比較病理研討會邀請雙專題演講，專題演講一由疾病管制署蘇迎士醫師，題目：大型人畜共通傳染病爆發的調查以及監測系統的介紹，專題演講二由及新加坡動物園許家達獸醫師，題目：Pathology in Wildlife Reserves Singapore

四、舉辦學術病理切片病例討論

1. 於第 75 次比較病理研討會共有 5 個單位提供 7 個病例會員討論。
2. 於第 76 次比較病理研討會共 5 個單位提供 7 個病例供會員討論。
3. 於第 77 次比較病理研討會共有 5 個單位提供 7 個病例供會員討論。

五、架設學會網站

提供 75、76 及 77 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 75、76 及 77 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

109 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 109 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 | 目 | | 本年度 預算數 | 上 年 度 預算數 | 本年度與上年度 預 算 比 較 數 | | 說 明 |
|---|---|--------|---------|--------|------------|--------------|----------------------|-------|---|
| | | | 名 | 稱 | | | 增加 | 減少 | |
| 1 | 1 | 本會經費收入 | 本會經費收入 | 75,080 | 85,080 | | | | |
| | | | 人會費 | 6,000 | 6,000 | | | | |
| | | | 常年會費 | 35,000 | 35,000 | | | | |
| | | | 贊助會費 | 30,000 | 40,000 | | 10,000 | | 學生人會 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 |
| | | | 利息收入 | 80 | 80 | | | | |
| 2 | 1 | 本會經費支出 | 其他收入 | 4,000 | 4,000 | | | | |
| | | | 人事費 | 54,460 | 65,880 | | 11,420 | | |
| | | | 兼職人員車馬費 | 8,000 | 6,000 | 2,000 | | | |
| | | | 其他人事費 | 8,000 | 6,000 | 2,000 | | | |
| | | | 辦公費 | 11,000 | 15,380 | | 4,380 | | 講師費 2000 元 |
| 3 | 1 | 業務費 | 印刷費 | 8,000 | 14,080 | | 6,080 | | 會議手冊印製 |
| | | | 旅運費 | 2,000 | 300 | 1,700 | | | |
| | | | 郵電費 | 1,000 | 1,000 | | | | 病例切片郵寄 |
| | | | 公共關係費 | 0 | 0 | | | | |
| 4 | 1 | 會議費 | 會議費 | 30,000 | 35,800 | 4,200 | | | |
| | | | 雜費支出 | 4,500 | 8,000 | 5,000 | | | |
| | | | 提撥基金 | 20,000 | 960 | 1,420 | | 3,500 | 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 | 目 | | 預算數 | 決算與預算比較數 | | 說明 |
|---|---|---|--------------------|------------|------------|----------------|--------|-------------------|
| | | | 名稱 | 決算數 | | 增加 | 減少 | |
| 1 | | | 本會經費收入 | 89,392 | 85,080 | 4,312 | | |
| | | | 入會費 | 7,500 | 6,000 | 1,500 | | 一般會員 14 人，學生 10 人 |
| | | | 常年會費 (三年內) | 40,800 | 35,000 | 5,800 | | 一般會員 44 人，學生 22 人 |
| | | | 贊助會費 | 35,000 | 40,000 | | 5,000 | 廠商捐款 |
| | | | 利息收入 | 92 | 80 | 12 | | 單次報名 |
| 2 | | | 其他收入 | 6,000 | 4,000 | 2,000 | | |
| | | | 本會經費支出 | 48,595 | 65,880 | | 17,285 | |
| | | | 人事費 | 8,000 | 6,000 | 2,000 | | |
| | | | 兼職人員車馬費 其它人事費 | 0 8,000 | 0 6,000 | 2,000 2,000 | | 8,000 0 |
| 2 | | | 辦公費 | 7,192 | 15,380 | | 8,188 | |
| | | | 印刷費 | 6,464 | 14,080 | | 7,616 | |
| | | | 旅運費 | 0 | 300 | | 300 | |
| | | | 郵電費 公共關係費 | 728 0 | 1,000 0 | | 272 | |
| 3 | | | 業務費 | 29,441 | 25,800 | 3,641 | | |
| | | | 會議費 | 29,441 | 25,800 | 3,641 | | |
| 4 | | | 雜費支出 (獸醫再教育 登錄) | 4,500 | 8,000 | | 3,500 | |
| | | | 提撥基金 | 2,100 | 960 | 1,140 | | |
| 3 | | | 本期餘總 | 38,189 | 19,200 | 18,989 | | |

理事長：

常務監事：

秘書長：

會計：

中華民國比較病理學會
資產負債表

中華民國 107 年 12 月 31 日
單位：新臺幣(元)

| 資 | 產 | 負債 | 基金 | 暨 | 餘額 |
|----------|---------|----|--------|---|---------|
| 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 | | | | 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：

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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. 63rd CSCP)
4. Pick any case you'd like to read (e.g. case 435-440)

比較病理研討會病例分類一覽表

中華民國比較病理學會
第一次至第七十次比較病理學研討會病例分類一覽表

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

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|--------|------|----|---|-------------|---------------|
| 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 |

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

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| 腫 瘤 | 192 | 27 | Cardiac myxoma | Human | 彰化基督教醫院病理科 |
| | 194 | 27 | Kasabach-Merrit syndrome | Human | 慈濟醫院病理科 |
| | 195 | 27 | Metastatic hepatocellular carcinoma, right atrium | Human | 新光醫院病理科 |
| | 197 | 27 | Papillary fibroelastoma of aortic valve | Human | 新光醫院病理科 |
| | 198 | 27 | Extraplacental chorioangioma | Human | 耕莘醫院病理科 |
| | 208 | 30 | Granulocytic sarcoma (Chloroma) of uterine cervix | Human | 高雄醫學大學病理學科 |
| | 210 | 30 | Primary non-Hodgkin's lymphoma of bone, diffuse large B cell, right humerus | Human | 彰化基督教醫院病理科 |
| | 213 | 30 | Lymphoma, multi-centric type | Dog | 中興大學獸醫系 |
| | 214 | 30 | CD30 (Ki-1)-positive anaplastic large cell lymphoma (ALCL) | Human | 新光醫院病理科 |
| | 215 | 30 | Lymphoma, mixed type | Koala | 台灣大學獸醫學系 |
| | 217 | 30 | Mucosal associated lymphoid tissue (MALT) lymphoma, small intestine | Cat | 臺灣大學獸醫學研究所 |
| | | 31 | Nasal type NK/T cell lymphoma | Human | 高雄醫學大學病理科 |
| | | 31 | Acquired immunodeficiency syndrome (AIDS)with disseminated Kaposi's sarcoma | Human | 慈濟醫院病理科 |
| | | 32 | Epithelioid sarcoma | Human | 彰化基督教醫院病理科 |
| | | 32 | Cutaneous B cell lymphoma, eyelid , bilateral | Human | 羅東聖母醫院病理科 |
| | | 32 | Extramammary Paget's disease (EMPD) of the scrotum | Human | 萬芳北醫皮膚科病理科 |
| | | 32 | Skin, back, excision, CD30+diffuse large B cell lymphoma, Soft tissue, leg , side not stated, excision, vascular leiomyoma | Human | 高雄醫學大學附設醫院病理科 |
| | | 34 | Malignant melanoma, metastasis to intra-abdominal cavity | Human | 財團法人天主教耕莘醫院病理科 |
| | | 34 | Vaccine-associated rhabdomyosarcoma | Cat | 台灣大學獸醫學系 |
| | | 34 | 1. Pleura: fibrous plaque 2. Lung: adenocarcinoma 3. Brain: metastatic adenocarcinoma | Human | 高雄醫學大學附設中和醫院病理科 |
| | 34 | 1. Neurofibromatosis, type I 2. Malignant peripheral nerve sheath tumor (MPNST) | Human | 花蓮慈濟醫院病理科 | |
| | 35 | Glioblastoma multiforme | Human | 羅東聖母醫院 | |

腫瘤

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|----|--|------------|----------------------|
| 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 |

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|-----|----|---|---------------|---------------|
| | 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

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

腫瘤

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|-----|----|--|----------------|-----------------------|
| 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 |

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

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| 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 |

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| 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 |

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| 501 | 72 | Anaplastic carcinoma thyroid (spindle cell type) | Human | 天主教耕莘醫院 |
| 502 | 72 | Primitive neuroectodermal tumor (PNET), most likely originating from ureter, with metastasis to liver and involvements of urinary bladder, uterus and left adrenal gland | Formosan serow | 臺灣大學獸醫學系 |
| 503 | 72 | Metastatic follicular carcinoma | Human | 衛生福利部台中醫院 |
| 506 | 73 | Type B1 thymoma | Human | 天主教耕莘醫院 |
| 508 | 73 | Metastatic melanoma | Human | 秀傳醫療社團法人秀傳紀念醫院 |
| 511 | 74 | Crystal storing histiocytosis associated with multiple myeloma. | Human | 羅東博愛醫院病理科 |
| 512 | 74 | Myeloid sarcoma | Human | 佛教慈濟綜合醫院暨慈濟大學病理科 |
| 513 | 74 | Neurolymphomatosis (neurotropic lymphoma), B cell, right musculocutaneous nerve | Cat | 國立台灣大學獸醫專業學院分子暨比較病理生物學研究所 |
| 514 | 74 | Primary diffuse large B-cell lymphoma (activated B- cell type) of right testis, Stage IE at least | Human | 國防醫學院三軍總醫院病理部 |
| 515 | 74 | Thymoma, most likely, mediastinal mass | Dolphin | 國立台灣大學獸醫專業學院分子暨比較病理生物學研究所 |
| 516 | 74 | Extranodal marginal zone lymphoma of mucosa- associated lymphoid tissue (MALT lymphoma) | Human | 秀傳醫療社團法人秀傳紀念醫院 |
| 517 | 74 | Angioliposarcoma in a Cockatiel | Dog | 國立中興大學獸醫病理生物學研究所 |
| 520 | 74 | Intravascular diffuse large B cell lymphoma. | Human | 國防醫學院三軍總醫院病理部 |
| 521 | 75 | Primary anorectal malignant melanoma (PAMM) | Human | 國軍桃園總醫院 |
| 523 | 75 | Pancreatic panniculitis associated with acinar cell carcinoma | Human | 羅東博愛醫院 |
| 524 | 75 | Anaplastic large cell lymphoma (ALCL), ALK-negative | Human | 秀傳醫療社團法人秀傳紀念醫院 |
| 525 | 75 | Canine cutaneous epitheliotropic T-cell lymphoma with the involvement of left axillary lymph node | Dog | 國立台灣大學獸醫專業學院分子暨比較病理生物學研究所 |
| 528 | 75 | Basal cell carcinoma with sebaceous differentiation | Human | 天主教耕莘醫院 |
| 529 | 76 | Tongue, Schwannoma | Human | 國軍桃園總醫院 |

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| | 530 | 76 | Amyloid-producing odontogenic tumor | Dog | 國立台灣大學獸醫專業學院分子暨比較病理生物學研究所 |
| | 531 | 76 | Embryonal rhabdomyosarcoma | Human | 花蓮慈濟大學暨慈濟醫院病理科 |
| | 532 | 76 | Adenocarcinoma, suspected mammary gland tumor metastasis, mass from iris and partially ciliary bodies of right eye | Cat | 國立台灣大學獸醫專業學院分子暨比較病理生物學研究所 |
| | 533 | 76 | Kaposi's sarcoma, parotid gland. | Human | 羅東博愛醫院病理科 |
| 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 | |

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| | 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 |

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|----|-----|----|--|--------------------|------------------|
| | 379 | 53 | Bovine Johne's disease (BJD) or paratuberculosis of cattle | Dairy cow | 屏東縣家畜疾病防治所 |
| | 380 | 53 | NTB, Mycobacterium abscessus | Human | 佛教慈濟綜合醫院暨慈濟大學病理科 |
| | 382 | 54 | Leptospirosis | Pig | 國立屏東科技大學獸醫學院 |
| | 384 | 54 | Neisseria Infected Pneumonitis | Cat | 中興大學獸醫學系 |
| | 385 | 54 | Mycobacteria avian complex dacryocystitis | Human | 花蓮佛教慈濟綜合醫院 |
| | 387 | 54 | Swine Erysipelas | Pig | 屏東縣家畜疾病防治所 |
| | 396 | 56 | Suppurative meningitis caused by Streptococcus spp in pigs | Pig | 國立中興大學獸醫病理生物學研究所 |
| | 399 | 56 | Listeric encephalitis in dairy goats | Goat | 屏東縣家畜疾病防治所 |
| | 435 | 63 | Tuberculosis | Human | 花蓮佛教慈濟綜合醫院 |
| | 438 | 63 | Porcine proliferative enteritis (PPE) | Pig | 國立中興大學獸醫病理生物學研究所 |
| | 446 | 64 | Actinomycosis (lumpy jaw) in a dairy cattle | Cattle | 國立中興大學獸醫病理生物學研究所 |
| | 450 | 65 | Mycobacterium avium infection | Human | 花蓮佛教慈濟綜合醫院 |
| | 464 | 67 | Ulcerative actinomycotic squamous plaque with focal (basal) severe dysplasia, mucosa, gingivobuccal junction, right lower gingiva in a man | Human | 嘉義聖馬爾定醫院 |
| | 469 | 68 | Scrub typhus | Human | 佛教慈濟綜合醫院暨慈濟大學 |
| | 489 | 71 | Malakoplakia due to Escherichia coli infection, left testis | Human | 佛教慈濟綜合醫院暨慈濟大學 |
| | 492 | 71 | Cystitis, bilateral ureteritis and pyelonephritis, hemorrhagic, necrotic, purulent, severe, diffuse, chronic progressive, urinary bladder, ureters and kidneys | Dog | 國立中興大學獸醫病理生物學研究所 |
| | 522 | 75 | Secondary syphilis | Human | 佛教慈濟綜合醫院暨慈濟大學 |
| | 526 | 75 | Dermatophilosis caused by <i>Austwickia chelonae</i> (basonym <i>Dermatophilus chelonae</i>) in a free-ranging wild Taiwanese japalure | Taiwanese japalure | 台灣大學獸醫學系 |
| 病毒 | 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 |

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| | | | | 試驗所 | |
| 55. | 7 | Infectious laryngo-tracheitis (Herpesvirus infection) | Broilers | 國立屏東技術學院獸醫學系 | |
| 69. | 9 | Pseudorabies (Herpesvirus infection) | Pig | 台灣養豬科學研究所 | |
| 78. | 10 | Marek's disease in native chicken | Chicken | 屏東縣家畜疾病防治所 | |
| 92. | 11 | Foot- and- mouth disease (FMD) | Pig | 屏東縣家畜疾病防治所 | |
| 101. | 11 | Swine pox | Pig | 屏東科技大學獸醫學系 | |
| | 13 | Pseudorabies | Piglet | 國立屏東科技大學 | |
| | 13 | Avian encephalomyelitis | Chicken | 國立中興大學 | |
| | 15 | Contagious pustular dermatitis | Goat | 屏東縣&台東縣家畜疾病防治所 | |
| | 15 | Fowl pox and Marek's disease | Chicken | 中興大學獸醫學系 | |
| | 16 | Japanese encephalitis | Human | 花蓮佛教慈濟綜合醫院 | |
| | 17 | Viral encephalitis, polyomavirus infection | Lory | 美國紐約動物醫學中心 | |
| | 17 | 1. Aspergillus spp. encephalitis and myocarditis 2. Demyelinating canine distemper encephalitis | Dog | 台灣大學獸醫學系 | |
| | 19 | Enterovirus 71 infection | Human | 彰化基督教醫院 | |
| | 19 | Ebola virus infection | African Green monkey | 行政院國家科學委員會實驗動物中心 | |
| | 19 | Rabies | Longhorn Steer | 台灣大學獸醫學系 | |
| | 20 | Parvoviral myocarditis | Goose | 屏東科技大學獸醫學系 | |
| | 28 | SARS | Human | 台大醫院病理科 | |
| | 28 | TGE virus | swine | 臺灣動物科技研究所 | |
| | 28 | Feline infectious peritonitis(FIP) | Feline | 台灣大學獸醫學系 | |
| | 30 | Chicken Infectious Anemia (CIA) | Layer | 屏東防治所 | |
| 病毒 | 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, | Goat | 台灣動物科技研究所 |

病毒

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| | | 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. | | |
| 238 | 35 | Hydranencephaly | Cattle | 國立屏東科技大學獸醫學系 |
| 248 | 36 | Porcine Cytomegalovirus (PCMV) infection | Swine | 國立屏東科技大學獸醫學系 |
| 250 | 36 | Porcine respiratory disease complex (PRDC) and polyserositis, caused by co-infection with pseudorabies (PR) virus, porcine circovirus type 2 (PCV 2), porcine reproductive and respiratory syndrome (PRRS) virus and Salmonella typhimurium. | Swine | 屏東縣家畜疾病防所 |
| 255 | 37 | Vaccine-induced canine distemper | gray foxes | 國立台灣大學獸醫學系 |
| 265 | 39 | Bronchointerstitial pneumonia (PCV II infection) | Swine | 台灣大學獸醫學系 |
| 295 | 42 | Feline infectious peritonitis (FIP) | Cat | 中興大學獸醫病理所 |
| 362 | 51 | Canine distemper virus infection combined pulmonary dirofilariasis | Dog | 國家實驗研究院 |
| 381 | 54 | Polyomavirus infection of urinary tract | Human | 羅東博愛醫院 |
| 405 | 57 | Porcine circovirus-associated lymphadenitis | Swine | 國立屏東科技大學獸醫教學醫院病理科 |
| 414 | 59 | Rabies virus infection | Human | 佛教慈濟綜合醫院暨慈濟大學病理科 |
| 415 | 59 | Canine distemper virus infection | Dog | 台灣大學獸醫專業學院分子暨比較病理生物學研究所 |
| 420 | 60 | Respiratory syncytial virus infection | Human | 佛教慈濟綜合醫院暨慈濟大學病理科 |

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| | 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 |
| | 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 |
| | 黴菌 | | 43 | Systemic Candidiasis | Tortoise |
| | | 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 |

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| | 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, Angiostrongylus cantonensis | Norway Rat | 行政院農業委員會 農業藥物毒物試驗所 |
| | 29 | Colnorchiasis | Human | 高雄醫學院附設醫院 | |
| | 29 | Trichuriasis | Human | 彰化基督教醫院 | |
| 寄生蟲 | | 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 |

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| 寄生蟲 | 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 |

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| 皮膚 | 216 | 30 | Cytophagic histiocytic panniculitis with terminal hemophagocytic syndrome | Human | 佛教慈濟綜合醫院病理科 |
| | 359 | 51 | Eosinophilic granuloma with fungal infection, Skin | Cat | 國立臺灣大學獸醫專業學院 |
| | 360 | 51 | Septa panniculitis with lymphocytic vasculitis | Human | 慈濟綜合醫院暨慈濟大學 |
| 其它 | 9. | 2 | Perinephric pseudocyst | Cat | 台灣大學獸醫學系 |
| | 10. | 2 | Choledochocyst | Human | 長庚紀念醫院 |
| | 11. | 2 | Bile duct ligation | Rat | 中興大學獸醫學系 |
| | 37. | 4 | Myositis ossificans | Human | 台北醫學院 |
| | 75. | 9 | Acute yellow phosphorus intoxication | Rabbits | 中興大學獸醫學系 |
| | 76. | 10 | Polycystic kidney bilateral and renal failure | Cat | 美國紐約動物醫學中心 |
| | 80. | 10 | Glomerular sclerosis and hyalinosis, segmental, focal, chronic, moderate Benign hypertension | SHR rat | 國防醫學院 & 國家實驗動物繁殖及研究中心 |
| | 83. | 10 | Phagolysosome-overload nephropathy | SD rats | 國家實驗動物繁殖及中心 |
| | 85. | 10 | Renal amyloidosis | Dog | 台灣養豬科學研究所 |
| | 89. | 10 | Severe visceral gout due to kidney damaged infectious serositis | Goose | 中興大學獸醫學系 |
| | 91. | 10 | Hypervitaminosis D | Orange-rumped agoutis | 台灣大學獸醫學系 |
| | | 14 | Cystic endometrial hyperplasia | Dog | 臺灣養豬科學研究所 |
| | | 14 | Cystic subsurface epithelial structure (SES) | Dog | 國科會實驗動物中心 |
| | | 15 | Superficial necrolytic dermatitis | Dog | 美國紐約動物醫學中心 |
| | | 15 | Solitary congenital self-healing histiocytosis | Human | 羅東博愛醫院 |
| | | 15 | Alopecia areata | Mouse | 國家實驗動物繁殖及研究中心 |
| | | 17 | Avian encephalomalacia (Vitamin E deficiency) | Chicken | 國立屏東科技大學獸醫學系 |
| | 151 | 18 | Osteodystrophia fibrosa | Goat | 台灣養豬科學研究所&台東縣家畜疾病防治所 |
| | | 20 | Hypertrophic cardiomyopathy | Pig | 台灣大學獸醫學系 |
| | 其它 | 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 | |

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| | 25 | Darier's disease | Human | 高雄醫學大學病理科 |
| 191 | 27 | 1. Polyarteritis nodosa 2. Hypertrophic Cardiomyopathy | Feline | 台灣大學獸醫學系 |
| 193 | 27 | Norepinephrin cardiotoxicity | Cat | 台中榮總 |
| 196 | 27 | Cardiomyopathy (Experimental) | Mice | 綠色四季 |
| 212 | 30 | Kikuchi disease (histiocytic necrotizing lymphadenitis) | Lymphadenitis | 耕莘醫院病理科 |
| 225 | 32 | Calcinosis circumscripta, soft tissue of the right thigh, dog | Dog | 台灣大學獸醫所 |
| 230 | 34 | Hemochromatosis, liver, bird | Bird | 台灣大學獸醫學系 |
| 234 | 34 | Congenital hyperplastic goiter | Holstein calves | 屏東縣家畜疾病防治所 |
| 236 | 34 | Hepatic lipidosis (fatty liver) | Rats | 中興大學獸醫學病理學研究所 |
| 237 | 35 | Arteriovenous malformation (AVM) of cerebrum | Human | 耕莘醫院病理科 |
| 244 | 35 | Organophosphate induced delayed neurotoxicity in hens | Hens | 中興大學獸醫學病理學研究所 |
| 257 | 37 | Severe lung fibrosis after chemotherapy in a child with Ataxia- Telangiectasia | Human | 慈濟醫院病理科 |
| 294 | 42 | Arteriovenous malformation of the left hindlimb | Dog | 台灣大學獸醫學系 |
| 299 | 43 | Polioencephalomalacia | Goat kid | 屏東家畜疾病防治所 |
| 310 | 44 | Hyperplastic goiter | Piglet | 屏東家畜疾病防治所 |
| 311 | 44 | Melamine and cyanuric acid contaminated pet food induced nephrotoxicity | Rat | 中興大學獸醫學病理學研究所 |
| 318 | 45 | Alfatoxicosis | Canine | 國立臺灣大學獸醫專業學院 |
| 333 | 47 | Lordosis, C6 to C11 | Penguin | 國立臺灣大學獸醫專業學院 |
| 341 | 49 | Pulmonary placental transmogrification | Human | 羅東博愛醫院 |
| 345 | 49 | Acute carbofuran intoxication | Jacana | 國立中興大學獸醫學院 |
| 350 | 50 | Malakoplakia, liver | Human | 慈濟綜合醫院暨慈濟大學 |
| 351 | 50 | Eosinophilic granuloma, Right suboccipital epidural mass | Human | 羅東博愛醫院病理科 |
| 359 | 51 | Eosinophilic granuloma with fungal infection, Skin | Cat | 國立臺灣大學獸醫專業學院 |
| 360 | 51 | Septa panniculitis with lymphocytic vasculitis | Human | 慈濟綜合醫院暨慈濟大學 |
| 361 | 51 | Hepatotoxicity of SMA-AgNPs | Mouse | 國立中興大學獸醫病理生物學研究所 |

其他

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|-------|----|---|---------------------|---------------------|
| 363 | 51 | Hypertrophy osteopathy | Cat | 國立臺灣大學獸醫專業學院 |
| 372 | 52 | Snake bite suspected, skin and spleen | Monkey (red guenon) | 國立臺灣大學獸醫專業學院 |
| 383 | 54 | Langerhans cell histiocytosis | Human | 聖馬爾定醫院病理科 |
| 388 | 54 | Canine protothecosis | Dog | 國立臺灣大學獸醫專業學院 |
| 392 | 55 | Lithium nephrotoxicity | Human | 佛教慈濟綜合醫院暨慈濟大學病理科 |
| 398 | 56 | Gamma-knife-radiosurgery-related demyelination | Human | 佛教慈濟綜合醫院暨慈濟大學病理科 |
| 400 | 56 | Canine Disseminated form Granulomatous Meningoencephalitis (GME) | Dog | 國立屏東科技大學獸醫教學醫院病理科 |
| 419 | 60 | Mucopolysaccharidosis | Cat | 國立中興大學獸醫病理生物學研究所 |
| 426 | 61 | Phleboliths in a man | Human | 台北醫學大學附設醫院口腔外科口腔病理科 |
| 427 | 61 | Visceral gout in a Green iguana (Iguana iguana) | Iguana | 中興大學獸醫病理生物學研究所 |
| 431 | 62 | pulmonary alveolar proteinosis in a man | Human | 羅東博愛醫院病理科 |
| 432 | 62 | Congenital pulmonary airways malformation, type 2 in a women | Human | 高雄醫學大學附設醫院 |
| 437 | 63 | Large solitary luteinized follicular cyst of pregnancy and puerperium | Human | 羅東博愛醫院病理科 |
| 454 | 66 | Eosinophilic granuloma | Human | 佛教慈濟綜合醫院暨慈濟大學病理科 |
| 461 | 67 | Intestinal emphysema | Pig | 中興大學獸醫病理生物學研究所 |
| 466 | 67 | Nodular goiter | Human | 彰化秀傳醫院病理科 |
| 474 | 68 | Parastrongyliasis (Previously called Angiostrongyliasis) | squirrel | 中興大學獸醫病理生物學研究所 |
| 475 | 69 | Bronchogenic cyst | Dog | 國立臺灣大學獸醫專業學院 |
| 480 | 69 | Toxic pneumonitis caused by inhalation of waterproofing spray | Dog | 中興大學獸醫學病理學研究所 |
| 486 | 70 | IgG4-related sclerosing cholangitis (ISC) | Human | 天主教耕莘醫療財團法人耕莘醫院 |
| 488 | 70 | Crohn's disease | Human | 彰化基督教醫院病理部 |
| Gross | 64 | Hydronephrosis | Pig | 中興大學獸醫病理生物學研究所 |
| Gross | 65 | 1. Traumatic pericarditis, severe, chronic progressive, diffuse, heart. | Cattle | 中興大學獸醫病理生物學研究所 |

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| | | 2. Hardware disease | | |
| 497 | 72 | Combined central and peripheral demyelination (CCPD) | Dog | 國立臺灣大學獸醫專業學院 |
| 498 | 72 | Inflammatory demyelinating pseudotumour | Human | 佛教慈濟綜合醫院暨慈濟大學病理科 |
| 500 | 72 | Ischemic stroke in a dog | Dog | 中興大學獸醫病理生物學研究所 |
| 504 | 73 | Autoimmune pancreatitis (IgG4 related pancreatitis) | Human | 羅東博愛醫院病理科 |
| 505 | 73 | Thrombotic microangiopathy with hemorrhagic infarct of brain, acute myocardial ischemia and acute kidney injury | Human | 佛教慈濟綜合醫院暨慈濟大學病理科 |
| 507 | 73 | The most likely diagnosis is erythema multiforme (EM). | Dog | 國立臺灣大學獸醫專業學院 |
| 509 | 73 | Doxorubicin-induced diseases | Chicken | 中興大學獸醫病理生物學研究所 |
| 518 | 74 | Idiopathic multicentric Castleman disease with abundant IgG4-positive cells | Human | 佛教慈濟綜合醫院暨慈濟大學病理科 |
| 527 | 75 | Coryneform hyperkeratosis in NOG mice | Mice | 中興大學獸醫病理生物學研究所 |
| 534 | 76 | Multiple Cartilaginous Exostoses Causing Spinal Cord Compression in a Dog | Dog | 中興大學獸醫病理生物學研究所 |
| 535 | 76 | Chondrodysplasia, diffuse, severe, chronic, growth plate, femur. | Rat | 中興大學獸醫病理生物學研究所 |

會員資料更新服務

各位會員：

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

中華民國比較病理學會秘書處

張惠雯 助理教授

cscptaiwan@gmail.com

02-33661296

106 台北市羅斯福路四段一號 國立台灣大學 獸醫專業學院

-----中華民國比較病理學會-----

會員資料更改卡

姓 名：_____

會員類別：一般會員

學生會員

贊助會員

最高學歷：_____

服務單位：_____ 職 稱：_____

永久地址：_____

通訊地址：_____

電 話：_____ 傳 真：_____

E-Mail Address：_____

中華民國比較病理學會

誠摯邀請您加入

入 會 辦 法

一、本會會員申請資格為：

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

二、會員：

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

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

中華民國比較病理學會入會申請及會員卡

會電腦編號

| | | | | | | | | | | | |
|---|------|--|---|--|-------------------|-----|-----|----|-----|------|----|
| 姓名 | 中文 | | 姓別 | <input type="checkbox"/> 男 <input type="checkbox"/> 女 | 出生 身 份 証 | 民國 | 年 | 月 | 日 | 出生地 | |
| | 英文 | | 會員身份： <input type="checkbox"/> 一般 <input type="checkbox"/> 學生 <input type="checkbox"/> 贊助 | | | | | | | | |
| 學歷 | (1) | | | | 稱謂(圈選) | 先生 | 小姐 | 醫師 | 獸醫師 | 教授 | 博士 |
| | (2) | | | | 研究員 | 主任 | 其他: | | | | |
| | (3) | | | | 研究 興 趣 | (1) | | | | | |
| | (4) | | | | | (2) | | | | | |
| 主要 經 歷 | 機關名稱 | | | 職務 | 起 | | | 止 | | | |
| | | | | | 年 | 月 | 年 | 月 | | | |
| | | | | | 年 | 月 | 年 | 月 | | | |
| 現職 | | | | | 年 | 月 | 年 | 月 | | | |
| <p>通訊地址 現在： 電話： 傳真：</p> <p>永久： 電話 傳真：</p> <p>電子信箱(E-mail)：</p> | | | | | | | | | | | |
| <p>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</p> <p>申請人 簽章</p> <p>介紹人 簽章</p> <p>介紹人 簽章</p> <p>中華民國 年 月 日</p> | | | | | | | | | | 審核結果 | |