中華民國比較病理學會

Chinese Society of Comparative Pathology

第 58 次比較病理學研討會

(多發腫瘤疾病)

Graduate Institute of Veterinary Pathobiology, NCHU

國立中興大學獸醫病理生物學研究所 主辦

July 13, 2013 (中華民國 102 年 7 月 13 日)

Chinese Society of Comparative Pathology

中華民國比較病理學會 協辦

SCHEDULE

58th MEETING OF COMPARATIVE PATHOLOGY

中華民國比較病理學會第 58 次比較病理學研討會

Date: July 13, 2013 (Sat) 09:00~16:30
Location: The College of Veterinary Medicine, NCHU
Address: 250 Kuo Kuang Rd., Taichung 402, Taiwan R.O.C.
Telephone: 02-33663868

時間：102 年 7 月 13 日(星期六) 09:00~16:30
地點 : 中興大學獸醫學院動物疾病診斷中心 108 室
地址：台中市南區國光路 250 號
電話：02-33663868

Time(時間)	Schedule(議程)		Moderator(主持)
09:00~09:20	Registration (報到)		
09:20~09:40	Opening Ceremony (致詞) –Dr. C. W. Shih 施洽雯 主任		
09:40~10:30	專題演講	Dr. J. W. Liao (廖俊旺 教授) 講題： The qualitative and quantitative evaluations of pathology in animal toxicology studies（動物毒理試驗之毒性病理判讀與分析）	Dr. C. W. Shih 施洽雯 主任
10:30~10:50	Coffee Break		
10:50~11:20	Case 407	Chia-Wen Shih (施洽雯 醫師) Department of Pathology, Lotung Poh-Ai Hospital (羅東博愛醫院)	Dr. J. W. Liao 廖俊旺 教授
11:20~11:50	Case 408	Tsung-Ching Liu (劉宗璟 獸醫師) Graduate Institute of Veterinary Pathobiology, National Chung Hsing University, Taichung (國立中興大學獸醫病理生物學研究所)	
11:50~13:20	Lunch, and Board Meeting (中華民國比較病理學會理監事會議)		
13:20~13:50	Case 409	Chien-Pin Huang (黃建賓 醫師) Buddhist Tzu Chi General Hospital and University, Taiwan (佛教慈濟綜合醫院暨慈濟大學病理科)	Dr. Y. H. Hsu 許永祥 主任
13:50~14:20	Case 410	Yi-Ying Lee (李怡瑩 醫師) Department of Pathology, ChiMei Hospital (奇美醫院病理部)	
14:20~14:40	Coffee Break		
14:40~15:10	Case 411	Hung-Shi Chiou (邱泓錫 獸醫師) Department of veterinary pathology, NPUST (國立屏東科技大學獸醫教學醫院病理科)	Dr. C. H. Liu 劉振軒 院長
15:10~15:40	Case 412	Ming-Tsung Lai (賴銘淙 醫師) Department of Pathology, School of Medicine, Chung Shan Medical University and Hospital (中山醫學大學醫學系病理學科暨附設醫院病理科)	
15:40~16:10	General Discussion (綜合討論)		

目　　錄

動物毒理試驗之毒性病理判讀與分析

The qualitative and quantitative evaluations of pathology in animal toxicology studies

廖俊旺 中興大學獸醫病理生物學研究所

摘要：

實驗動物毒理學之研究數據，可提供食品、藥毒物及化學產品對人體、動物及環境生態安全性相關資訊，並探討對生物體傷害之作用機制，適時作為臨床應用及管理重要參考依據。國際上已建立各種短期及長期之動物試驗規範，經由檢測實驗動物之各項生理值及病理學的判讀評估，直接或間接的證實藥毒物使用之安全性。但毒理試驗之操作或毒性病理判讀方式不當，會影響試驗結果之正確性，不可忽視。毒性病理學為一結合毒理學及病理學之科學，除需具有獸醫病理學對各種疾病及病變描述等專業知識外，尚需熟悉不同實驗動物及各種毒理試驗規範。同時，毒性病理判讀需達到完整、精確及一致性，且能分辨自發性與毒性病變之不同，綜合試驗物質在整體試驗中發生之病變與否，為判讀臨床前動物安全性試驗重要證據之一。肉眼及組織病理觀察與記錄，為動物毒理試驗之最後階段。促成精確的毒理病理判讀，需有完整的樣品採集、正確的組織臟器固定保存、良好的組織修片、切片製作品質及染色。一般例行性切片染色常使用蘇木素及伊紅染色，蘇木紫可染出細胞核及核仁等鹼性物質使呈藍色，伊紅則對酸性物質具親合性，可將細胞內蛋白質染成紅色。利用此二種染劑，可區分出正常細胞結構、形態、大小及組織排列。毒性病理判讀之半定量分析首先需使用共通病理診斷專有名詞描述，依組織病變不同加以區分等級，並列表進行組間積分比較。對於難以區分細胞性或細胞來源之病變，可用特殊化學染色法，標定具特殊性細胞，如結締組織或纖維化，利用Sirius red染色法可染出紅色區，藉此可偵測細胞內存在部位及量的變化。另外，細胞膜抗原容易受到福馬林溶液固定之破壞，常以新鮮標本冷凍切片處理，但因細胞形態固定不佳，病變不易判讀。經福馬林液固定後石臘標本染色，雖因抗原性遭破壞，但仍可用組織免疫化學染色法，利用加熱回復抗原特性，將特殊抗原於封臘之組織切片重新再表現。即利用初級抗體覆蓋組織切片一段反應時間後，以次級抗體處理，再利用呈色物質標識出抗原位置。如常用：增殖性細胞核表現抗原(PCNA)輔助判定增生細胞。對於一般認為病理判讀常有主觀意識，可藉由影像處理系統定量分析並提供較客觀數據加以修正。因此，毒性病理之正確判讀，除可善用組織病變不同之半定量描述分析外，亦可應用影像處理系統之客觀數據加以輔助，兩者結合後可使病理報告內容更加客觀準確，達到動物毒理試驗訂定無毒害作用劑量值(NOAEL)之參考依據。

CASE SIGNALMENT

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Case No.	Presenter	Institution	Slide No.	Signalment
Case 407	施洽雯	Department of Pathology, Lotung Poh-Ai Hospital (羅東博愛醫院)	1. LP12-11950 2. LP13-34	51-year-old man
Case 408	劉宗璟	Graduate Institute of Veterinary Pathobiology, National Chung Hsing University, Taichung (國立中興大學獸醫病理生物學研究所)	CO13-418	Hog meat inspection samples submitted from slaughter house
Case 409	黃建賓	Buddhist Tzu Chi General Hospital and University, Taiwan (佛教慈濟綜合醫院暨慈濟大學病理科)	S2009-10327A	64-year-old man
Case 410	李怡瑩	Department of Pathology, ChiMei Hospital (奇美醫院病理部)	1. 奇美 2005 12-0963AB 2. 奇美 2005 12-0666-d	39-year-old woman
Case 411	邱泓錫	Department of veterinary pathology, National Pingtung University of Science and Technology (國立屏東科技大學獸醫教學醫院病理科)	WA100-2920-4	An adult panthera tigris tigris
Case 412	賴銘淙	Department of Pathology, School of Medicine, Chung Shan Medical University and Hospital (中山醫學大學醫學系病理學科暨附設醫院病理科)	1. 04047 2. R-12.04.30 3. T-12.04.27	72-year-old man

CASE DIAGNOSIS

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(中華民國比較病理學會第 58 次比較病理學研討會)

Case No.	Presenter	Institution	Slide No.	Diagnosis
Case 407	施洽雯	Department of Pathology, Lotung Poh-Ai Hospital (羅東博愛醫院)	1. LP12-11950 2. LP13-34	Hepatoid adenocarcinoma of colon with multiple liver metastases
Case 408	劉宗璟	Graduate Institute of Veterinary Pathobiology, National Chung Hsing University, Taichung (國立中興大學獸醫病理生物學研究所)	CO13-418	Cardiac and pulmonary melanoma in a pig
Case 409	黃建賓	Buddhist Tzu Chi General Hospital and University, Taiwan (佛教慈濟綜合醫院暨慈濟大學病理科)	S2009-10327A	1. Double Tumors: (1) small cell carcinoma of lung (2) Hodgkin's lymphoma, mixed cellularity type. 2. Acrokeratosis paraneoplastica
Case 410	李怡瑩	Department of Pathology, ChiMei Hospital (奇美醫院病理部)	1. 奇美 2005 12-0963AB 2. 奇美 2005 12-0666-d	Von Hippel–Lindau disease
Case 411	邱泓錫	Department of veterinary pathology, National Pingtung University of Science and Technology (國立屏東科技大學獸醫教學醫院病理科)	WA100-2920-4	Multiple neoplasia in a zoo captive tiger
Case 412	賴銘淙	Department of Pathology, School of Medicine, Chung Shan Medical University and Hospital (中山醫學大學醫學系病理學科暨附設醫院病理科)	1. 04047 2. R-12.04.30 3. T-12.04.27	Hepatocellular carcinoma and multiple myeloma

Shih, C.W. (施洽雯), M.D., M.S[1] Chen, C.T. (陳朱德), M.D.[1]
Chen, M.T. (陳明聰), M.D.[2] Chiang, M.F. (江明峰), M.D.[3]

1 Department of Pathology, Lotung Poh-Ai Hospital (羅東博愛醫院病理科)
2. Department of Radiology, Lotung Poh-Ai Hospital (羅東博愛醫院放射科)
3. Department of Gastroenterology, Lotung Poh-Ai Hospital (羅東博愛醫院胃腸科)

CASE HISTORY:

Signalment: 51-year-old man.

Clinical history:
A 54 y/o man who was referred to our G-I OPD from clinic with the chief problem of high serum AFP (alpha-fetoprotein) noted in routine health examination. Abdominal echo showed multiple liver tumors with the largest one measuring up to 5 cm in diameter. The CT (computed tomography) scan also revealed multiple tumors in the liver. Tracing the history, the patient has suffered from tenesmus and bloody stool for months. Colonscopic examination was arranged and done on 101-12-31. A large colonic tumor was noted and biopsy for pathologic diagnosis was performed. The pathologic diagnosis was moderately differentiated adenocarcinoma. For poor correlation between the high serum AFP and pathologic diagnosis of colonic adenocarcinoma, hepatocellular carcinoma of liver was suspected. Liver biopsy was performed on 102-1-2 and the pathologic diagnosis was moderately differentiated hepatocellular carcinoma. Thereupon double primary tumor was diagnosed. However, poor correlation of CT findings and pathologic diagnosis of liver tumors was noted during combined conference of hepatic tumor. Immunohistochemical stain of the tissue of colonic tumor was performed on 102-2-4.

Clinical Pathology:
Serum biochemistry showed HBsAg(+), HBeAg(-), AFP : 16352 ng/ml,
CEA (carcinoembryonic antigen) : 3.51ng/ml.

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1 Department of Pathology, Lotung Poh-Ai Hospital (羅東博愛醫院病理科)
2. Department of Radiology, Lotung Poh-Ai Hospital (羅東博愛醫院放射科)
3. Department of Gastroenterology, Lotung Poh-Ai Hospital (羅東博愛醫院胃腸科)

CASE RESULT:

Histopathological finding:

The tissue fragments of colon biopsy shows neoplastic glandular structures lined by neoplastic columnar epithelium with large and hyperchromatic nuclei, and distinct or inconspicuous nucleoli. Areas of necrosis were also noted. The tissue fragments of liver biopsy showed mixed normal liver tissue and cancer tissue with proliferated neoplastic cells, irregular in size and shape with large and hyperchromatic nuclei, distinct or inconspicuous nucleoli. Focal necrosis and areas of glandular structures were also noted.

Immunohistochemistry:

The colonic tumor showed positive staining for hepatocyte, glypican 3 and CDX2, focal positive staining for CEA (carcinoembryonic antigen) and CK20 (cytokeratin 20), and negative staining for CK7 (cytokeratin 7). The liver tumor showed positive staining for hepatocyte, glypican 3 and CDX2, and negative staining for CEA, CK 7 and CK 20.

Differential Diagnosis:

1. Hepatocellular carcinoma with colon metastasis.
2. Synchronous primary tumor of adenocarcinoma of colon and hepatocelluar carcinoma of liver.
3. Hepatoid adenocarcinoma of colon with liver metastasis.

Diagnosis: Hepatoid adenocarcinoma of colon with multiple liver metastases.

Discussion:

Hepatoid adenocarcinoma (HAC) is a rare extra-hepatic neoplasm with the histological features, biochemical profile and, sometimes, even clinical course of hepatocellular carcinoma. Ishikura et al described the first case of hepatoid adenocarcinoma in 1985. HAC is often found in the gastrointestinal tract particularly in the stomach. HAC is reported to comprise 0.38 % of all gastric cancer. HAC also develops less frequently in lungs, pancreas, esophagus, papilla vater, colon, urinary

bladder, ovary, uterus and the renal pelvis.

HAC often shared clinical features, such as old age, high serum AFP, aggressive behavior, and hepatic tumor in absence of risk factors for hepatocellular carcinoma (HCC). Patients with HAC are older than those with primary HCC.

AFP is a normal fetal serum glycoprotein that is synthesized and secreted by fetal hepatocytes, gastrointestinal cells, and yolk sac cells. Usually, synthesis of AFP stops at birth; therefore, its presence in the serum after 1 year of age is associated with pathological conditions . Elevation of serum AFP has been reported in association with some human cancers, predominantly in association with HCC and non-seminomatous germ cell tumors , and rarely with carcinomas of the stomach, colon , gallbladder , ovary , pancreas , lung , kidney , duodenum , prostate , and urinary bladder. The serum AFP level is usually increased in patients with HAC but it may be normal in some cases. HAC can be divided into the following two groups: HAC with AFP-positive tumor cells and HAC without AFP-positive cells. AFP levels may become normal after curative operation and so AFP can be helpful in the disease follow-up.

Histopathologically, the HAC was composed of large polygonal cells with abundant eosinophilic or clear cytoplasm, arranged in a trabecular or solid pattern or glandular structures, and showing marked vascular invasion. The diagnosis of colonic HAC depends on the presence of a mixture of morphological and immunohistochemical features of hepatocellular carcinoma and adenocarcinoma. The glycogen granules and hyaline globules were common features in HAC. The incidence of a venous invasion of HAC was higher than that of APC.

As HAC and HCC can not be differentiated on the basis of morphology alone, differences in immunohistochemical reaction patterns would be of considerable diagnostic help. Immunostaining for CK7, CK8, CK18, CK19, CK20, AFP, p-CEA, and HepPar1 revealed that hepatoid areas of both primary and metastatic HAC have a specific immunoprofile, distinctive of this entity.

So far, none of the hypotheses proposed about the origin and the biology of these tumors is convincing. Recently, some researchers have suggested that some cancers may originate from cancer stem cells, which may form via carcinogenesis of normal stem cells. It was demonstrated that hepatic progenitor cells, also called oval cells, strongly express AFP mRNA and produce AFP during differentiation. A hepatic progenitor cell population, which gives rise to hepatocytes, has been suggested in humans, though whether these cells can give rise to malignant tumors has not been confirmed.

Treatment modalities and operative strategies are dependent upon the exact nature of the hepatoid

cancer. The prognosis is usually poor. It frequently spreads to the liver via haematogenous and/or lymphogenous vessels.

In conclusion, HAC is a rare colon cancer, the preoperative diagnosis of this tumor requires a high degree of suspicion, the availability of a panel of Immunohistochemical markers. Metastatic carcinoma from HAC should be included in the differential diagnosis in older patients with elevated serum AFP level and hepatic masses with imaging features of HCC in the absence of risk factors of HCC.

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Alpha-fetoprotein-producing lung carcinoma: report of three cases. Pathol Int, 52: 46-53, 2002.

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Tsung-Ching Liu (劉宗璟), Yi-Lo Lin, Cheng-Chung Lin
Graduate Institute of Veterinary Pathobiology, National Chung Hsing University, Taichung (國立中興大學獸醫病理生物學研究所)

CASE HISTORY:

Signalment: Hog meat inspection samples were submitted from a slaughter house.

Clinical history:
Viscreal organs condemned from a black pig (hybrid simulated native pig) for histopathologcal diagnosis to confirm the melanoma. Several black spots, patches or hard masses were scattered over the lung, liver and heart during the meat inspector on line. The pig didn't show any remarkable clinical sign on ante-mortem inspection.

Gross findings:
There are many black spots which varied in size (from 0.1 to 1 cm) in the endocardium, myocardium and epicardium, but some of them were mass-like and hard when touching. One were next to paraconal interventricular branch on the right ventricle, and the other were on the left heart. The masses infiltrated from the epicardium to the myocardium after cutting. Likewise, black spots were found in the pleural surface and periphery of bronchi. However, one mass, 1.1×1×0.7 cm, was in left cardiac lobe of lung. When cutting the surface, it was rather granular than smooth.

Tsung-Ching Liu (劉宗璟), Yi-Lo Lin, Cheng-Chung Lin
Graduate Institute of Veterinary Pathobiology, National Chung Hsing University, Taichung (國立中興大學獸醫病理生物學研究所)

CASE RESULT:

Histopathological finding:

In the heart, the masses was lobular and encapsulated. All of the tumor cells were filled with brownish pigment in the cytoplasm but the nuclei were covered by brownish pigments or poorly stained. The myocardia showed focal necrosis with lymphocytes and macrophages infiltration and fibrous connective tissue hyperplasia. The arterioles around the tumor mass revealed atheroma to arteriosclerosis. The tumor masses in the lung were well-encapsulated and the tumor cells was as like as the cells in the myocardia. In addition, the parts of pulmonary masses were necrotic and calcified. There were some lymphoid follicles hyperplasia in the periphery of bronchi.

Differential diagnosis:

1. Melanoma
2. Melanosis
3. Hemosiderosis

Diagnosis: Cardiac and pulmonary melanoma in a pig

Discussion:

Melanoblasts are neuroectodermal in origin, and during fetal development they migrate to the skin and hair bulbs. Mature pigment producing cells are referred to as melanocytes. These dendritic cells are found interspersed between the basal keratinocytes of the epidermis and hair bulb. E-cadherin molecules are found on the cell surfaces of melanocytes and keratinocytes; these molecules are the adhesion mechanism between the two cell types. Melanin produced by melanocytes, is stored within melanosomes, and is transferred to keratinocyte by a process known as cytocrinia. Melanosomes accumulate within the cytoplasm of keratinocytes, where they serve to protect the skin from the harmful effects of ultraviolet radiation. Melanoblasts that fail to reach the epidermis will develop into intradermal melanocytes. In the dermis, a second population of melanin-containing cells, melanophages which have phagocytosed melanin that enters the dermis secondary to leakage from or destruction of epidermal or follicular melanocytes, may be found.

In terminology, the melanocytic lesions in veterinary medicine is different from that used in human dermatology. In animals, the term melanocytoma and malignant melanoma are used to describe benign and malignant melanocytic proliferation, whereas a benign melanocytic

proliferation whether it is congenital or acquired is called a nevus and melanoma is referred to a malignancy in humans.

In animals, melanocytic tumors are most common in dogs, gray horses and miniature pig, uncommon in goats and cattle and rare in cats and sheep. Pigs have a high incidence of melanocytomas which may often be found in slaughter animals. Certain breeds, including the Sinclair, Homel and Duroc swine, have a high incidence because the tumor is congenital in these breeds. Moreover, melanocytomas in the breeds are used as animal models for melanoma in humans. However it remains unclear how these tumors should be classified, because in some cases they regress spontaneously, while in others they have a malignant biologic behavior, fail to regress and show metastasis to regional lymph nodes. There tumors develop both prenatally and postnatally, anywhere on the body. Generally multiple, they can appear as pigmented macules or patches with smooth borders; as raised, often ulcerated pigmented lesion; or as deeper, slightly raised blue massed.

Three terms used extensive in description of melanocytic neoplasms: junctional refers to the proliferation of neoplastic melanocytes, often as small nest at the epidermal-dermal junction. Compound indicates that there is both an epidermal and a dermal component to the tumor. Dermal indicates that the tumor is only intradermal without epidermal component. In pigs, the congenital melanocytomas may be multicentric or may arise in the flank area in Duroc breed. Melanocytomas vary considerably in their appearance, which may be related to the length of time. The color of the tumor depends on the amount of melanin within the cells and varies from black through various shades of brown to gray and red. Of critical importance is the location of the tumor. As a general rule tumors arising from the haired skin are benign, where those arising from mucocutaneous junctions are malignant, the only exception being those arising on the eyelids.

In histopathology, the intraepidermal component of melanocytomas consists of atypical melanocytes that occur either as single cells or small nests of tumors cells in the lower epidermis or the external root sheath of the hair follicle. Most cells are round and have a large amount of intracytoplasmic melanin, which tends to obscure the nuclear morphology. In bleached sections the nuclei are somewhat hyperchromatic and show little pleomorphism. Mitosis are infrequently observed. The dermal component of melanocytomas shows a marked variability in the morphology. In the upper dermis the cell are similar to those found in the epidermis. However, it may also appear epitheloid with prominent nucleoli and the cells may arranged in small groups, subdivided by a fine fibrovascular stroma. Dermal melanocytomas are often small spindle cells with intracytoplasmic melanin granules and variable amount collagenous stroma. Unless these cells retain the ability to synthesize melanin, it is difficult to distinguish them from dermal fibromas. The majority of melanocytomas shows little nuclear or cellular pleomorphism and the number of mitosis is usually low. However, in malignant melanoma, the tumor cells may be found in the upper layer of the epidermis. The cells have larger nuclei and more conspicuous nucleoli than those in melanocytomas. Mitosis are more frequently observed. Epidermal ulceration may also be more

common with malignant melanoma. In dermal component, cells have more anaplestic and pleomorphic melanocytes which may be fusiform or epithelioid in shape and contain much or little melanin. The tumor may display an interwoven or whorled pattern of fusiform cells or nest of epithelioid cell with an interstitial, fine and fibrovascular stroma. Over three mitotic figure are usually found per 10 high power field. Occasionally, foci of chondroid or osseous metaplasia may be seen.

Melanocytoma are slowing growth but malignant melanomas are often rapidly. Besides, there is local invasion into the subcutaneous tissue, but intraepidermal spread may also be seen. Metastasis occur commonly with spread via lymphatics to regional lymph nodes and lung. Melanocytic lesions in pigs are not treated, but surgical excision which may accompany with intralesional chemotherapy with cisplatin or carboplatin is the best choice in dogs and horses. In addition, a series of novel xenogeneic gene therapy vaccination using plamid DNA encoding human tyrosinase can cause dogs to produce antibody and cytotoxic T-cell responses that may shrink their melanomas.

The main differential diagnosis is the melanosis. Melanin deposition can be found in many organs, including lungs, meninges, respiratory and alimentary systemic mucous membranes. Congenital melanosis produced no clinical impairment in affected animals. The cells of melanosis have no ability of invasion and metastasis as the melanin is confined to the capsule and the stroma in livers.

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Huang, Chien-Pin (黃建賓), MD Student; Hsu Yung-Hsiang (許永祥), MD.
Buddhist Tzu-Chi General Hospital and Tzu-Chi University (佛教慈濟綜合醫院暨慈濟大學)

CASE HISTORY:

Signalment: 64-year-old man

Clinical history:

The 64-year-old man was generally healthy until he began to have skin itching over bilateral dorsal side of forearms and shins since Dec, 2008. There was ecchymosis and easy bleeding over the itchy site. No rashes or papules over the itching region. All of his nails began thickened and deformed, and progressive tenderness, scaling and splitting of skin over palms and soles were noted after skin itching onset. In June, 2009 he had sudden onset of right hemiparesis and right facial palsy. He admitted to CGMH, and left CVA was diagnosed.

He was admitted to our hospital on June 30, 2009. During hospitalization, lymphadenopathy at Rt. submental, bil. axillary and inguinal areas was noted. His lab data showed leukocytosis with eosinophilia and elevated IgE. CXR showed patchy infiltration at bilateral lung. Chest CT showed 1) multiple ill-defined subpleural opacities in both lung and nodular lesion of RUL, 2) multiple enlarged lymph nodes at bilateral axilla and mediastinum. CT guided biopsy revealed small cell lung carcinoma, limited stage, IA. The bone marrow biopsy showed 50 % eosinophilic infiltration. The biopsy of left axillary lynph node revealed Hodgkin's lymphoma (mixed cellularity type, stage IIA).

He received 3 courses of EP(Etoposide + Cisplatin) and Prednisolone from August 8th, 2009 to October 7, 2009, and then 2 cycles of Stanford V (Doxorubincin, Bleomycin, Vinblastine, Mechlorethamine, Etoposide and Prednisolone) from October 28, 2009 to April 2nd, 2010. His skin lesion gradually improved after first dose of EP. Neutropenia during chemotherapy was noted. Chest CT on April 9, 2010 showed partial response of double tumors. He regularly followed up at OPD with stationary condition.

On August 7, 2010, he had fever, general malaise, rhinorrhea, sore throat, productive cough and dyspnea for one week. Lab data showed leukocytosis and CXR showed diffuse infiltration. Under the impression of pneumonia. He was admitted on August 10th, 2010 for antibiotics treatment. However, even with power antibiotic regimen. Patient continued to have spiking fever and deteriorating CXR, and oxygen saturation also deteriorated. The patient finally expired on September 22, 2010.

Clinical Pathology:

June 30, 2009

Hb: 14.0 gm/dL, WBC: 19.07×10^3/uL, Lymphocyte: 18%, band: 4 %, Seg.: 22 %, Monocyte: 13 %,

Eosin.: 39 %, Aty. Lym.: 2 %, IgE: > 5000

September 08, 2010

PT: 14 sec., control: 10.3 sec., APTT: 36.9: sec., Control: 28.9 sec., Fibrinogen: 277.4 mg/dL, D-dimer: 939 ug/mL

September 16, 2010

Hb: 7.3 gm/dL, PLT: 27×103/uL, WBC: 16.71×103/uL, Lymphocyte: 19%, band: 21 %, Seg.: 48 %, Monocyte: 9 %, Eosin.: 2 %, Aty. Lym.: 1 %, BUN: 22 mg/dL, Creatinine: 1 mg/dL, Na: 143 mmol/L, K: 3.7 mmol/L

September 20, 2010

Hb: 8.6 gm/dL, PLT: 7.0×103/uL, WBC: 10.18×103/uL, Lymphocyte: 23%, band: 32 %, Seg.: 23 %, Monocyte: 16 %, Eosin.: 1%, Aty. Lym.: 2 %, BUN: 33 mg/dL, Creatinine: 1 mg/dL, Na: 142 mmol/L, K: 4.2 mmol/L

Gross findings:

At autopsy, bilateral palms and soles revealed no hyperkeratosis lesion. Bilateral lungs were more heavier than nomal (right: 1120 gm; left: 880 gm). On cut, one retracted tumor nodule measuring 4.0 cm in diameter in RUL was seen. On cut, it was whitish and firm. Multiple cavities with necrotic debris coating were found in the RUL, RML and LLL. Other area of lungs showed multiple foci of consolidation.

Huang, Chien-Pin (黃建賓), MD Student; Hsu Yung-Hsiang (許永祥), MD.
Buddhist Tzu-Chi General Hospital and Tzu-Chi University (佛教慈濟綜合醫院暨慈濟大學)

CASE RESULT:

Histopathological finding:

Microscopically, we reviewed previous biopsy slides. The sole skin biopsy showed hyperkeratosis accompanied psoriasis like picture with lymphocytes and eosinophils infiltration and sarcoid like granuloma formation. RUL of lung mas biopsy showed small cell carcinoma with focal trabecular pattern and tumor necrosis. The axilla lymph node biopsy showed mixed cellularity type of Hodgkin's lymphoma.

In the autopsy specimen, no residual Hodgkin's lymphoma was found. The hilar and para-esophageal lymph node only showed sarcoid like granuloma. And this type granuloma also found in the skin and liver. In the RUL of lung revealed small cell carcinoma, the same as previous biopsy. The multiple cavities of lungs showed necrotizing granulomatous inflammation with candida pseudophyphae formation. The other area showed bronchopneumonia with abscess formation and organization in the alveolar spaces.

Immunohistochemistry:

1. Small cell carcinoma with CK (++), chromogranin (+) and synaptophysin(++)
2. Hodgkin's lymphoma with CD30(+) in Reed-Sternberg cells and CD3(++), CD20(+) in background lymphoid cells.

Diagnosis:

1. Double Tumors: 1) small cell carcinoma of lung, 2) Hodgkin's lymphoma, mixed cellularity type.
2. Acrokeratosis paraneoplastica

Discussion:

Acrokeratosis paraneoplastica (Bazex syndrome) was first described by Bazex in 1965, and is a rare but distinctive paraneoplastic dermatosis. It is characterized by a hyperkeratotic, psoriasiform eruption that favors acral sites and parallels the evolution of a co-existing malignancy. Associated features of acrokeratosis paraneoplastica include pruritus, vesiculation, sterile paronychia, hyperpigmentation hypopigmentation, bullous lesions and carpal tunnel syndrome.

On the basis of clinical observation, acrokeratosis paraneoplastica has been divided into 3 stages, which reflect the growth and dissemination of the underlying malignancy. The first stage is characterized by erythema and psoriasiform scaling on the fingers and toes, which soon spreads to the bridge of the nose and to helices of the ears, Nail changes are frequent. In the second stage, a violaceous keratoderma of the palms and soles develops, and the facialesions spread to the pinnae and cheeks. In the third stage, the eruption extends locally and begins to involve the legs, knees,

thights, arms, trunk and scalp. The cutaneous lesions precede the diagnosis of the tumor by an average of 11 months. In the most typical cases, the neoplasm begins to produce its first symptoms when the skin lesions have progressed to the second stage.

A review of the literature in 2005 found that 60% the associated neoplasms were squamous cell carcinoma of the head, neck and lungs. Less commonly associated carcinomas are poorly differentiated carcinoma (16%), adenocarcioma of the prostate, lung, esophagus stomach, and colon (8%), and small cell carcinoma of the lung (2.5%). Even rarer associated carcinomas include transitional cell carcinoma of the bladder, Hodgkin's disease, T-cell lymphoma, carcinoid, thymoma, vulvar, liposarcoma, cholangiocarcinoma, uterine adenocarcinoma, and breast cancer. Most described cases are white males older than 40.

The diagnosis is based on clinical features since the histopathology and direct immunofluorescence is nonspecific, but histologic examination is useful in ruling out other major dermatoses.

Several mechanisms for development of this paraneoplastic syndrome have been proposed. One theory proposes that antibodies against the tumor cross react with the keratinocyte or basement membrane leading to damage of the basal layer of the skin [2]. Alternatively, an immune reaction directed against tumor like antigens in the epidermis could be responsible for the cutaneous eruptions. Yet another proposed mechanism is tumor production of autocrine growth factors for keratinocytes, transforming growth factor-α, and insulin like growth factor-1 leading to epidermal hyperplasia.

Treatment of the underlying neoplasm often improves the cutaneous symptoms significantly and reappearance of the lesions may signal recurrence of the tumor or development of metastatic disease.

In our patient, the skin lesions significantly improve after first dose of chemotherapy, and completely resolve when autopsy. This improvement was associated with complete remission of Hodgkin’s lymphoma in our patient, confirming a causal relationship while residual small cell lung carcinoma still present in autopsy.

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Yi-Ying Lee (李怡瑩) M.D., Chien-Feng Li (李健逢) M.D., Ph.D.
Department of Pathology, Chi-Mei Medical Center(奇美醫院病理部)

CASE HISTORY:

Signalment: 39-year-old woman

Clinical History:
The 39-year-old woman, who has been generally healthy except for right eye blindness since birth, presented with paroxysmal generalized headache accompanied by dizziness for 2 months. It was aggravated by postural changes and would awake her during sleep. She took medication first but in vain and then went to our neurology OPD for help.

Physical examination showed unremarkable changes and neurologic examination revealed right eye blindness with invisible fundus and left eye papilledema. No limb weakness or other neurologic deficits were noted. Brain MRI disclosed multiple cerebellar cystic lesions. And Abdominal CT showed a left renal mass (7.4x8.1 cm). She had laparoscopic radical nephrectomy for the renal tumor firstly and then underwent craniotomy for removal of the cerebellar tumor due to elevated intracranial pressure two weeks after laparoscopic surgery.

Clinical Pathology:
WBC: 8300/uL (3200-9200/uL), RBC: 5.07x106/uL (3.72-4.93x106/uL), Hb: 15.3 gm/dL (11.6.-14.8 gm/dL), Hct: 44.2% (34-44%), Plt: 280x103/dL (150-400x103/dL). BUN: 19 mg/dL (6-22 mg/dL), Creatinine: 0.9 mg/dL (0.6-1.3 mg/dL), Glucose AC: 97 mg/dL (70-110 mg/dL), Na: 139 mmol/L (135-148 mmol/L), K: 3.74 mmol/L (3.5-5.0 mmol/L). CRP: 2.3 mg/L (<6 mg/L), EAR: 20 mm/hr (0-20 mm/hr). CA-125: 8.0 U/mL (<35 U/mL), CA19-9: 2.3 U/mL (<37 U/mL), CEA: 0.72 ng/mL (<5 ng/mL).

Gross findings:
1. [Nephrectomy specimen] composed of left kidney (14x6x6 cm and 494 gm) and attached adrenal gland (3.5x2.5x1.5 cm). One tumor (7x7x6 cm) was identified at lower pole with heterogenous, tan brown and gray yellow cut surface and extensive necrosis and hemorrhage.
2. [Craniotomy specimen] comprised one brown tissue fragment, 1.8x1.5x 0.8 cm.

Yi-Ying Lee (李怡瑩) M.D., Chien-Feng Li (李健逢) M.D., Ph.D.
Department of Pathology, Chi-Mei Medical Center(奇美醫院病理部)

CASE RESULT:

Histopathological finding:
The renal tumor shows a clear cell carcinoma composed of nests of cells with clear cytoplasm, surrounded by abundant thin-walled blood vessels. Extensive necrosis and hemorrhage with microcysts containing extravasated red blood cells and eosinophilic fluid are also discerned.
The cerebellar tumor shows abundant vacuolated stromal cells in a loose stroma which is rich in thin-walled or staghorn-shaped dilated vessels. The nuclei of stromal cells vary in size, with occasional atypical and hyperchromatic nuclei. Cystic components are also discerned. No hemorrhage or necrosis is noted.

Immunohistochemistry:
The stromal cells in the cerebellar tumor are immunopositive for NSE and CD10 (membranous staining) and negative for AE1/AE3 and EMA.

Differential Diagnosis (cerebellar tumor):
1. Metastatic renal cell carcinoma
2. Hemangioblastoma

Diagnosis: von Hippel–Lindau (VHL) disease with clear cell renal cell carcinoma and cerebellar hemangioblastoma

Discussion:
von Hippel–Lindau (VHL) disease is an inherited, autosomal dominant syndrome manifested by a variety of benign and malignant tumors. The major tumors are hemangioblastoma (HB) in the central nervous system (CNS), retinal hemangioblastoma (RA), pheochromocytoma, renal cell carcinoma (RCC), pancreatic cystadenoma and pancreatic neuroendocrine tumors. The incidence of VHL has been estimated at 1 in 30,000 to 50,000 live births, with no known sex or race predilections. The penetrance for VHL is age-dependent with over 90% penetrance by the age of 65. Approximately 20% of VHL disease patients result from a de novo mutation and do not have a family history. The following criteria are used for the diagnosis of VHL disease: (1) Patients with a family history of developing HB in the CNS or RA, RCC, pheochromocytoma or pancreatic tumors or cysts, epididymal cystadenoma. (2) Patients without a family history of VHL disease, but who

develop HB or RA in combination with other tumors, such as RCC, pheochromocytoma, pancreatic tumors or cysts, or epididymal cystadenoma. VHL families are broadly divided into type 1 (no pheochromocytomas) and type 2 (with pheochromocytoma) variants. The type 2 category is further stratified into types 2A (HBs with low risk of RCC), 2B (HBs with high risk of RCC), and 2C (pheochromocytomas only). The genotype-phenotype correlations reflect intra- and inter-familial variations.

The *VHL* tumor suppressor gene, which is located on chromosome 3p25–26, is responsible for this disease. The major cause underlying the development of the disease is inactivation of the *VHL* tumor suppressor protein and subsequent loss of the function of the VHL protein (pVHL). The pVHL complex regulates a number of hypoxiainducible factor (HIF) transcripts, including the *HIF*α, *VEGF*, and erythropoietin *(EPO)* genes. In normoxic conditions, the pVHL complex targets HIF for degradation, whereas in the setting of hypoxia or the loss of pVHL function, HIF levels remain elevated. The resulting stimulation of angiogenic factors, such as VEGF and platelet-derived growth factor B (PDGF-B) could explain the typical hypervascularity of VHL-associated tumors.

Solitary and especially, multiple HBs are diagnostic hallmarks of VHL. Roughly 75% are infrantentorial, mainly involving the cerebellum and the other 25% are found in the spinal cord, brainstem, and lumbosacral nerve roots. HBs are slow-growing (WHO grade I) tumors, which are well-demarcated, highly vascular tumors with varying proportions of capillary proliferation (predominant in reticular variant), fibrosis, and epithelioid clear to foamy stromal cells (predominant in cellular variant). The stromal cells commonly show degenerative nuclear atypia, but this has no prognostic significance.

The differential diagnosis between HB and metastatic RCC can be challenging because (1) there is considerable morphologic overlap between the two lesions, (2) both tumors are common in VHL patients, and (3) RCC frequently metastasizes to the CNS (or even to a preexisting HB), both sporadically and in the context of VHL. Features such as stromal cells bearing foamy or vacuolated cytoplasm, delicate chromatin or degenerative nuclear atypia and adjacent piloid gliosis are more commonly seen in HBs. In contrast, RCCs tend to show solid sheets of uniformly clear cells or epithelioid cells with pink cytoplasm and vesicular nuclei with prominent nucleoli. Immunohistochemical studies may also be helpful. HBs often display low mitotic/proliferative indices compared with RCCs. RCCs show immunopositive for EMA, cytokeratin and CD10 and also RCC in a subset, while HBs are positive for NSE, Inhibin, D2-40, and S-100.

Until recently, life expectancy was roughly 50 years, with death commonly resulting from complications of RCC and CNS HBs. The primary goal of management for patients with VHL disease is the early diagnosis and treatment of tumors that might cause severe disability or death. Early diagnosis of most VHL complications improves prognosis and all VHL patients and at risk relatives should be entered into a comprehensive surveillance and screening program in childhood. Besides, targeted drugs might offer new therapeutic opportunities for patients affected with VHL disease as it is already the case for tyrosine-kinase inhibitors (specially acting in VEGF pathway) in sporadic

renal cell carcinoma.

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Hung-Shi Chiou (邱泓錫), Tsung-Chou Chang
Department of veterinary pathology, National Pingtung University of Science and Technology（國立屏東科技大學獸醫教學醫院病理科）

CASE HISTORY:

Signalment: An adult panthera tigris tigris

Clinical history:

An adult *Panthera tigris tigris* in the Shoushan Zoo had a history of anorexia, emaciation and depression for several days from January 13th, 2013. Abdominal ultrasonographic imaging revealed that there were multifocal cystic structures in the liver. The patient was found dead on February 6th, 2013.

Gross findings:

The tiger was extremely emaciated, and the mucosal (gingival mucosa) appeared diffusely yellowish. On necropsy, the adipose tissue of omentum was scant, and multiple organs containing various nodules bulging from the surface can be noted, including the liver, spleen, pancreas, thyroid glands, and adrenal glands. Various multiple, mostly pale and yellowish, irregular nodules, range from 0.1 x 0.1 cm to 5 x 8 cm masses throughout the liver and spleen is significantly noted. Some of the nodules are compact in texture, and others were demarcated, circumscribed by thick capsule with mucous fluid in the cystic structures. Multiple cystic structures ranged from 0.5 x 0.5 cm to 1 x 1 cm can be noted in the thyroid gland with mucous fluid in these cavities. A solid, whitish, and irregular 8 x 2 x 2 cm mass was noted in the pancreas. The medulla of adrenal glands were infiltrated by 1 x 1 cm to 1.5 x 1 cm whitish solid masses with necrosis. No significant gross changes were noticed in the other organs.

Hung-Shi Chiou (邱泓錫), Tsung-Chou Chang
Department of veterinary pathology, National Pingtung University of Science and Technology(國立屏東科技大學獸醫教學醫院病理科)

CASE RESULT:

Histopathological finding:

- Liver：Separating, surrounding and effacing, approximately 80% of hepatic architecture is an unencapsulated, infiltrative neoplasm composed of polygonal cells arranged in irregular, branching tubules, supported by a thin fibrovascular stroma. Most of the tubular structures contained eosinophilic secretion in the lumens and the neoplastic cells arranged in multiple layers is also significant. Neoplastic cells have variably indistinct cell borders, moderates amount of eosinophilic, often vacuolated cytoplasm, round to oval vesicular nuclei, and a single, distinct eosinophilic nucleolus. Mitotic figure is high about 7-8/HPF. The rest of hepatocytes appear variable fatty changes.
- Spleen：Part of the spleen parenchyma is infiltrated by the same neoplastic growth as seen in the liver.
- Adrenal gland：The medulla is focally infiltrated by the same neoplastic growth as seen in the liver.
- Pancreas：A well demarcated and encapsulated neoplasm infiltration can be noted and compress the adjacent normal pancreatic acini. The neoplasm is composed of trabecular and acinar growth patterns, with neoplastic cells arranged in small glandular units, separated by delicate fibrovascular stroma. The neoplastic cells are uniform in sizes, cuboidal to columnar in shapes, with indistinct cell borders, eosinophilic granular cytoplasm, and condense basally located nuclei. Mitotic figure is rare.
- Thyroid gland：The normal thyroid parenchyma is effaced by solid sheets and follicular neoplastic growth which is separated into small lobules by fine fibrovascular stroma. Most of the neoplastic cells are arranged in solid sheets, however, part of the neoplastic cells are arranged in a recognizable follicular pattern, with eosinophilic colloid content. Neoplastic cells have indistinct cell borders, moderate amounts of eosinophilic vacuolated cytoplasm, and an irregularly round nucleus with moderately stippled chromatin and 1-2 variably distinct nucleoli. Large necrotic foci can be observed intratumorally.
- Parathyroid gland：In the other thyroid gland, multiple cystic degeneration is prominent, and parathyroid gland proliferation. The hyperplastic gland is composed of nests and cords of solidly packed chief cells, separated by a fine fibrovascular stroma. Chief cells are densely packed, and have a moderate amount of eosinophilic cytoplasm. Hyperplastic foci can be

noticed among the normal thyroid follicles. Mitotic figures are rare.

Histopathologic Diagnosis:

1. Cholangiocarcinoma, liver, with metastasis to spleen and adrenal glands.
2. Pancreatic exocrine adenocarcinoma, acinar type, pancreas.
3. Thyroid carcinoma, follicular and solid types, thyroid gland.
4. Parathyroid gland hyperplasia.

Immunohistochemistry:

Further immunohistochemistry staining will be done and the result will be discussed in the conference.

Final diagnosis: Multiple neoplasia in a zoo captive tiger

Discussion:

A review of necropsy reports from 1979-2003 in Knoxville Zoological Gardens found 40 neoplasms in 26 zoo felids. Neoplasia rate at necropsy was 51% (24⁄47), and overall incidence of felid neoplasia during the study period was 25% (26⁄103). Neoplasms were observed in the integumentary-mammary, endocrine, reproductive, hematopoietic-lymphoreticular, digestive, and hepatobiliary systems. Multiple neoplasms were observed in 11 animals. Both benign and malignant neoplasms were observed in all systems except for the hematopoietic-lymphoreticular systems where all processes were malignant. Of the endocrine neoplasms, those involving the thyroid and parathyroid glands predominated over other endocrine organs. In the integumentary system, 63% of neoplasms involved the mammary gland, with mammary carcinoma representing 83% of the neoplasms.

The patient in our study appear multiple neoplasia in various organs, including liver, spleen, adrenal glands, thyroid glands, and pancreas. Recently, we also necropsy and diagnosed a zoo captive tiger in Shoushan Zoo as multiple endocrine neoplasia type 2A, according to medullary thyroid carcinoma, parathyroid adenoma, pheochromocytoma and hypertensive changes, without pancreas and pituitary disorders. Another tiger from the Pingtung Rescue Center was also be necropsied and had thyroid problems. According to the report and our findings, old tigers usually had neoplasia in multiple organs, therefore, a systemic health examination should routinely be done to monitor if there is any neoplasm in the body, and further surgical and/or antitumoral medical treatments are recommended to cure the patient.

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Ming-Tsung Lai (賴銘淙), MD. PhD
Department of Pathology, School of Medicine, Chung Shan Medical University and Hospital（中山醫學大學醫學系病理學科暨附設醫院病理科）

CASE HISTORY:

Signalment: 72-year-old man

Clinical History:

This 72-year-old man, with a history of peptic ulcer 20 years ago and hypertension for 5 years, had been well until he had bowel habit change scince 1 month ago. According to him, he used to have stool passage once a day, but it became once per 2-3 days. The stool was quiet hard, but there was no bloody or tarry stool. He also mentioned that he had dyspnea on exertion in the recent 1 month too. He got shortness of breath after going up only 1 flight of stair although he had regular exercise everday. He also complained intermittent lower chest pain, which was not associated with radiation pain. He denied palpitation, chills, cold sweating, orthopnea, and paroxysmal nocturnal dyspnea. Body weight loss or night sweating was also denied. His heart beats was regular without murmurs, and the EKG showed normal sinus rhythm. However, low Hb level (7.0mg/dL) was found. He had received abdominal ultrasonography, revealing a 5 cm hepatic mass. Abdominal CT showed hepatic tumor r/o HCC. Multiple lymph nodes in the portacaval space, paraaortic region and along the celiac trunk are noted. Echo-guide hepatic tumor biopsy was done and pathologic report proved hepatocellular carcinoma. Then, he received operation at NTUH.

He had operated including S7/8 bisegmental hepatectomy, group 8/9 and 12 lymphadenectomy and cholecystectomy. The tumor measures 6x4x3 cm in size and at S7 segment and without cirrhosis, but mild fatty change, The lymphoadenopathy is suggestive of malignant lymphoma. Echo showed some pleural effusion on 5/29. The pathologist suggested plasmpheresis and bone marrow study. The multiple myeloma was diagnosised at NTUH with thalidomide and alkeran(target thery). He regularly followed up at NTUH.

He came to our ER for progressive short of breath in the morning at 2012/07/05. He also mild chest tightness, chest pain, cold sweating and radiation pain. The urine output was decreasing than before. Empyema amd liver abscess was diagnosted, then he stop all oral chemotherapy agent until infection got controlled.

Clinical Pathology:

BH:166cm; Bw:79kg BT: 36.9C RR: 18/min HR:78/min BP:198/102 mmHg. Lab finding(2012/04/21):
Gluose(AC): 104 CRE:1.0 K:4.5 AST(GOT): 37 ALT(GPT):20 LDH:297 Serum iron: 281 TIBC:449 Hb: 7.0
Retic count: 1.83 WBC: 1810 RBC: 259 Ht: 24.4; MCV: 94.2 MCH: 31.3 MCHC: 33.2 platelet: 57000
Seg: 27.1 Lympho: 63.5 Mono: 6.6 Eso: 2.2 Bas:0.6 Pro-Time: 13.0 A.P.T.T: 37.0
AFP: 2.27 CEA: 1.24 Ferritin(EIA): 501.94 HBsAg(-), Anti-HBc(+) Anti-HCV(-)
LAB:2012/0705:

W.B.C count	4080	11000	4000	ul
R.B.C count	327	550	450	X10^4/ul
Hb.	10.5	17	13	g/dl
Ht.	30.2	51	41	%
MCV	92.4	100	84	fl
MCH	32.1	32	28	Pg
MCHC	34.8	36	32	g/dl
Platelet	119000	400000	150000	ul
Seg	84.5	75	40	%
Lymho	9.1	45	20	%
Mono	6.4	10	2	%
Eos	0.0	6	1	%

Gross Findings:

The liver shows 9x8.7x5.5 cm in size and contains a solid, well-defined tumor 4.4x4.0x3.7cm in size.

Regional lymph nodes are dissected including group 8.9 and 12 lymph nodes.

The gall bladder shows 8x4.2x2 cm in size without stone.

The liver biopsy and bone marrow biopsy are performed

Ming-Tsung Lai (賴銘淙), MD. PhD
Department of Pathology, School of Medicine, Chung Shan Medical University and Hospital（中山醫學大學醫學系病理學科暨附設醫院病理科）

CASE RESULT:

Histopathologic Findings:

The liver shows a hepatocellular carcinoma, grade II and diffuse large B cell lymphoma and regional lymph nodes shows: diffuse large B cell lymphoma.(multiple myeloma involvement)
Bone marrow: Multiple myeloma (IgA lamnda type)

Immunohistochemistry:

Liver: HCC: CD34(+), Glypican-3(-); Non-tumor: CD34(+), Glypican-3(-)
The tumor cells and LN. show scattered positiicity to CD138, MUM-1, CD79a and LCA, negative to CD3, CD20, CD56, PAX-5, V38c, CD30 and EBER, HHV-8.
Bone marrow: positive to LCA and CD79a, but negative to CK, CD20 and CD3.
Abnormal cell/Pattern : plasmacytosis(+), immature

Blast : 0.5%	N.Myelo : 3.5%	Eos : 1.0%
Promyelo : 0.5%	Meta : 5.5%	PMN : 22.5%
Lympho : 18.5%	Plasma cell : 35.5%	Proerythroblast : 11.5%

Differential Diadnosis:

1. Plasmablastic lymphoma
2. DLBCL, imuloblastic varient
3. Plasmablastic Plasma cell myeloma

Diagnosis:

1. Hepatocellular carcinoma, grade II, pT1N0M0, BCLC stage A, s/p Bi-segmentectomy of S7-8
2. Bone marrow, liver and hilum LN. Group 8,9,12 LN. Multiple myeloma, IgA lamnda type, ISS stage III.

Discussion:

The distinction between localized plasmacy- toma (PC), multiple myeloma (MM), and immunoblastic lymphoma (IL) has important clinical implications. Localized plasmacytomas, which are tumors consisting of sheets of plasma cells, may occur as solitary lesions in bone or extramedullary sites. The median survival of affected patients may be greater than 10 years with local excision and/or radiotherapy. However, solitary plasmacytoma of bone has **a** greater tendency to progress to multiple myeloma. Survival after progression is similar to that of patients who present

with multiple myeloma. Multiple myeloma, which has histologic features identical to but which is clinically distinguishable from localized plasmacytoma, follows a more aggressive clinical course despite chemotherapy. Survival is relatively short depending on stage, and the median survival is 30 months. Immunoblastic lymphoma, one of the three major categories of high-grade lymphoma in the International Working Formulation, is generally known to display an aggressive clinical course with a median survival of 16 months with hemotherapy . However, recent aggressivetherapy has yielded a 76% 2-year survivals,similar to that of the intermediate-grade diffuse, large cell lymphomas. Immunoblastic lymphomas usually have distinct histologic features consisting of cells with eccentrically placed nuclei, prominent central nucleoli, and abundant amphophilic cytoplasm. However, in some cases the histologic distinction between immunoblastic lymphoma and anaplastic plasmacytoma/multiple myeloma is diffiult.

DDX of PBL,DLBCL, Plasma cell Myeloma:

DDX of PBL,DLBCL, Plasma cell Myeloma

	Plasmablastic lymphoma	DLBCL, imuloblastic varient	Plasma cell myeloma
Bcl-6	-/+	-/+	-
Bcl-2	-/+	-/+	-/+
ALK1	-	-	-
ERBR	+	-/+	-
HHV8	-	-	-
EBV-LMP	-	-	-
P53	+/-	+/-	+/-

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DDX of PBL,DLBCL, Plasma cell Myeloma

	Plasmablastic lymphoma	DLBCL, imuloblastic varient	Plasmablastic Plasma cell myeloma
CD20	-	+	-
Pax-5	-/+	+	-
CD79a	-/+	+	-
CD45/LCA	-/+	+	-/+
CD138	+	-	+
MUM/IRF-4	+	-/+	+
CD30	-	-/+	-
CD56	-/+	-	+/-
CD10	+/-	+/-	-/+
CD38	+	-	+

References:

1. Primary Lymph Node Plasmacytomas (Plasmacytic Lymphomas) Am J Clin Pathol 2001;115:119-126
2. Primary extramedullary plasmacytoma and multiple myeloma: phenotypic differences revealed by immunohistochemical analysis *J Pathol* 2005; 205: 92–101
3. lmmunophenotypic Differences Between Plasmacytoma/Multiple Myeloma and lmmunoblastic Lymphoma *Cancer* 61:1782-1786, 1988.
4. Hepatic Manifestations in Hematological Disorders International Journal of Hepatology Volume 2013,
5. Plasmacytoma of bone, extramedullary plasmacytoma, and multiple myeloma: Incidence and survival in the United States, 1992−2004 *Br J Haematol*. 2009 January ; 144(1): 86–94.
6. Extraosseous (extramedullary) plasmacytomas: a clinicopathologic and immunophenotypic study of 32 Chinese cases Diagnostic Pathology 2011, 6:123

中華民國比較病理學會章程

第一章　總則

第一條　本會定名爲中華民國比較病理學會，英文名稱爲 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，爲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爲宗旨。

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

第四條　本會之任務如左：

一、　提倡比較病理學之研究與發展。

二、　舉辦學術演講會、研討會及相關訓練課程。

三、　建立國內比較醫學相關資料庫。

四、　發行比較病理學相關刊物。

五、　促進國內、外比較醫學之交流。

六、　其他有關比較病埋學術發展之事項。

第五條　本會之主管機關爲內政部。目的事業主管機關依章程所訂之宗旨與任務，主要爲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，即成爲一般會員，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，每一會員爲一權。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，即爲出會。

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　本會以會員大會爲最高權力機構。

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爲理事長。

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、監事均爲無給職，任期三年，連選得連任。理事長之連任以一次爲限。

第二十條　理事、監事有下列情事之一者，應即解任：

一、喪失會員資格。

二、因故辭職經理事會或監事會決議通過者。

三、被罷免或撤免者。

四、受停權處分期間逾任期二分之一者。

第二十一條　本會置祕書長一人，承理事長之命處理本會事務，令置其他工作人員若干人，由理事長提名經理事會通過後聘免之，並報主管機關備查。但祕書長之解聘應先報主管機關核備。

前項工作人員不得由選任之職員（理監事）擔任。

工作人員權責及分層負責事項由理事會令另定之。

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

第二十三條　本會得由理事會聘請無給顧問若干人，其聘期與理事、監事之任期同。

第四章　會議

第二十四條　　會員大會分定期會議與臨時會議兩種，由理事長召集，召集時除緊急事故之臨時會議外應於十五日前以書面通知之。定期會議每年召開一次，臨時會議於理事會過半數認爲必要，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爲限。

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

第二十七條　理事會及監事會至少每六個月各舉行會議一次，必要時得召開聯席會議或臨時會議。

前項會議召集時除臨時會議外。應於七日以以書面通知，會議之決議各以理事、監事過半數之出席，出席人較多數之同意行之。

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

第五章　　經費及會計

第二十九條　本會經費來源如下：

一、入會費：一般會員新台幣壹仟元，學生會員壹佰元，贊助會員伍仟元，於入會時繳納。

二、常年會費：一般會員新台幣五佰元，學生會員壹佰元。

三、事業費。

四、會員捐款。

五、委託收益。

六、基金及其孳息。

七、其他收入。

第三十條　　本會會計年度以國曆年爲準，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六屆理監事名單簡歷冊								
職別	姓名	性別	出生年月日	學歷	經歷	現任本職	電話	傳真
理事長	施洽雯	男	46/08/30	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	039-543131- 2716	039-551543
常務理事	呂福江	男	37/11/21	美國漢尼門 大學病理學 博士	國防醫學院病 理學研究所所 長	耕莘醫院病理部主任	02-22193391 ext 65236	02-2193506
常務理事	許永祥	男	48/10/30	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	03-8565301- 2197	03-8574265
常務理事	張俊梁	男	45/5/6	國防醫學院醫學 科學研究所博士	國防醫學院兼任助理教授	國軍桃園總醫院病理檢驗部 主任	02-2303-2209 03-4799595 ext 325570	02-2303- 5192
常務理事	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	中興大學獸醫病理學研究所 教授	04-22840894 ext406	04- 22862073
理事	劉振軒	男	42/10/9	美國加州大學戴 維斯校區比較病 理學博士	台灣養豬科學研究所主任	國立台灣大學獸醫專業學院 院長	02-33663760	02- 23633289
理事	祝志平	男	46/02/25	台大病理研 究所碩士	台北醫學院講師	高雄醫學大學病理科主治醫 師	07-3121101 ext 7081~7085	039-572916
理事	李進成	男	49/06/06	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	02-28389306	02- 28389306
理事	陳三多	男	40/08/11	比利時魯汶大學 博士	中興大學獸醫系教授	中興大學獸醫病理研究所教 授	04-22840368	04- 22853552
理事	張文發	男				國立中興大學獸醫學院 動 物疾病診斷中心副主任		
理事	張聰洲	男	41/11/29	國立中興大學獸 研所碩士班	國立屏東技術學院助教	國立屏東科技大學副教授	06-2333529	08-7740295
理事	賴銘淙	男	47/10/14	清華大學生命科 學院博士	華濟醫院病理科主任	彰濱秀傳紀念醫院病理科主 任	04-3250487	
理事	蔡睦宗	男	49/10/25	國立台灣大學獸 醫學系公共衛生 組碩士	台灣養豬科學研究所比較醫 學系約聘技術員	屏東縣家畜疾病防治所技士	08-7224109	08-7224432
理事	陳憲全	男	25/5/18	日本麻布大學獸 醫學研究科博士	US Veterinary Medical Officer, USDA/AFIS Philadelphia District Guloff Station, Elisabethtown, PA, USA	玉樹生技病理顧問有限公司 首席獸醫病理學家/台灣動 物科技研究所顧問	02-27832557 037-585875	037-585850
理事	朱旆億	男		國立台灣大學醫 學系		天主教聖馬爾定醫院病理科 主任	05-2756000	
常務監事	江蓉華	男		國防醫學院醫學 士	國軍花蓮總醫院病理部主任	耕莘醫院組織病理科主任	02-22193391	
監事	林永和	男	46/02/24	台大病理研 究所	台北醫學院病理科講師	台北醫學院病理科講師	02-27361661	02- 23770054
監事	梁鍾鼎	男	51/01/25	台灣大學獸醫學 研究所博士班	國家實驗動物中心副研究員	國家實驗動物中心首席獸醫 師	02-2789-5569	02- 27895588
監事	阮正雄	男	30/05/28	日本國立岡山大 學 大學院醫齒藥 總合研究科博士	1. 台北市立婦幼綜合醫院病 理科主任及婦產科主治醫師 2. 台北醫學大學副教授兼細 胞學中心主任 3. 高雄市防癌篩檢中心細胞 學主任	童綜合醫院婦產科及病理科 主治醫師	02-2362-2656	04- 26581919 轉4320 （辦公室）

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 NTU Vet Med Digital Pathology Lab web site at http://140.112.96.83:82/CSCP/ with your web browser.

3. A pop-up window appears to ask for "User name" and "Password." Enter “guest " for both boxes.

4. Choose a Comparative Pathology meeting (e.g. 52nd CSCP)

5. Pick any case you'd like to read (e.g. case365-372)

中華民國比較病理學會
第一次至第五十八次比較病理學研討會病例分類一覽表

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

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

		tumor)		
腫 瘤	103.	Atypical central neurocytoma	Human	新光吳火獅紀念醫院
	104.	Cardiac schwannoma	SD rat	國家實驗動物繁殖及研究中心
	109.	Desmoplastic infantile ganglioglioma	Human	高雄醫學院
	107.	1.Primary cerebral malignant lymphoma 2.Acquired immune deficiency syndrome	Human	台北市立仁愛醫院
	111.	Schwannoma	Human	三軍總醫院
	114.	Osteosarcoma	Dog	美國紐約動物醫學中心
	115.	Mixed germ-cell stromal tumor, mixed sertoli cell and seminoma-like cell tumor	Dog	美國紐約動物醫學中心
	116.	Krukenberg's Tumor	Human	台北病理中心
	117.	Primary insular carcinoid tumor arising from cystic teratoma of ovary.	Human	花蓮慈濟綜合醫院
	119.	Polypoid adenomyoma	Human	大甲李綜合醫院
	120.	Gonadal stromal tumor	Human	耕莘醫院
	122.	Gestational choriocarcinoma	Human	彰化基督教醫院
	123.	Ovarian granulosa cell tumor	Horse	中興大學獸醫學系
	129.	Kaposi's sarcoma	Human	華濟醫院
	131.	Basal cell carcinoma (BCC)	Human	羅東聖母醫院
	132.	Transmissible venereal tumor	Dog	臺灣大學獸醫學系
	137	Canine Glioblastoma Multiforme in Cerebellopontine Angle	Dog	中興大學獸醫病理研究所
	143	Osteosarcoma associated with metallic implants	Dog	紐約動物醫學中心
	144	Radiation-induced osteogenic sarcoma	Human	花蓮慈濟綜合醫院
	145	Osteosarcoma, osteogenic	Dog	臺灣大學獸醫學系
	146	Pleomorphic rhabdomyosarcoma	Human	行政院衛生署新竹醫院
	147	Papillary Mesothelioma of pericardium	Leopard	屏東科大學獸醫學系
	148	Cystic ameloblastoma	Human	台北醫學院
	149	Giant cell tumor of bone	Canine	中興大學獸醫學院
	150	Desmoplastic small round cell tumor (DSRCT)	Human	華濟醫院
	152	Hepatocellular carcinoma	Human	羅東聖母醫院
	158	Hemangiopericytoma	Human	羅東聖母醫院

腫瘤	160	Cardiac fibroma	Human	高雄醫學大學病理學科
	166	Nephroblastoma	Rabbit	紐約動物醫學中心
	168	Nephroblastoma	Pig	台灣動物科技研究所
	169	Nephroblastoma with rhabdomyoblastic differentiation	Human	高雄醫學大學病理科
	172	Spindle cell sarcoma	Human	羅東聖母醫院
	174	Juxtaglomerular cell tumor	Human	新光醫院病理檢驗科
	190	Angiosarcoma	Human	高雄醫學大學病理學科
	192	Cardiac myxoma	Human	彰化基督教醫院病理科
	194	Kasabach-Merrit syndrome	Human	慈濟醫院病理科
	195	Metastatic hepatocellular carcinoma, right atrium	Human	新光醫院病理科
	197	Papillary fibroelastoma of aortic valve	Human	新光醫院病理科
	198	Extraplacental chorioangioma	Human	耕莘醫院病理科
	208	Granulocytic sarcoma (Chloroma) of uterine cervix	Human	高雄醫學大學病理學科
	210	Primary non-Hodgkin’s lymphoma of bone, diffuse large B cell, right humerus	Lymphoma	彰化基督教醫院病理科
	213	Lymphoma, multi-centric type	Dog	中興大學獸醫系
	214	CD30 (Ki-1)-postitive anaplastic large cell lymphoma (ALCL)	Human	新光醫院病理科
	215	Lymphoma, mixed type	Koala	台灣大學獸醫學系
	217	Mucosal associated lymphoid tissue (MALT) lymphoma, small intestine	Cat	臺灣大學獸醫學研究所
	218	Nasal type NK/T cell lymphoma	Human	高雄醫學大學病理科
	222	Acquired immunodeficiency syndrome (AIDS)with disseminated Kaposi’s sarcoma	Human	慈濟醫院病理科
	224	Epithelioid sarcoma	Human	彰化基督教醫院病理科
	226	Cutaneous B cell lymphoma , eyelid , bilateral	Human	羅東聖母醫院病理科
	227	Extramammary Paget’s disease (EMPD) of the scrotum	Human	萬芳北醫皮膚科,病理科
	228	Skin, back, excision, CD30+diffuse large B cell lymphoma, Soft tissue, leg , side not stated, excision, vascular leiomyoma	Human	高雄醫學大學附設醫院病理科
	231	Malignant melanoma, metastasis to	Human	財團法人天主教耕莘醫

腫瘤		intra-abdominal cavity		院病理科
	232	Vaccine-associated rhabdomyosarcoma	Cat	台灣大學獸醫學系
	233	1. Pleura: fibrous plaque 2. Lung: adenocarcinoma 3. Brain: metastatic adenocarcinoma	Human	高雄醫學大學附設中和醫院病理科
	235	1. Neurofibromatosis, type I 2. Malignant peripheral nerve sheath tumor (MPNST)	Human	花蓮慈濟醫院病理科
	239	Glioblastoma multiforme	Human	羅東聖母醫院
	240	Pineoblastoma	Wistar rat	綠色四季
	241	Chordoid meningioma	Human	高醫病理科
	243	Infiltrating lobular carcinoma of left breast with meningeal carcinomatosis and brain metastasis	Human	花蓮慈濟醫院病理科
	245	Microcystic Meningioma.	Human	耕莘醫院病理科
	247	Well-differentiated fetal adenocarcinoma without lymph node metastasis	Human	新光吳火獅紀念醫院
	249	Adenocarcinoma of lung.	Human	羅東聖母醫院
	252	Renal cell carcinoma	Canine	國立台灣大學獸醫學系獸醫學研究所
	253	Clear cell variant of squamous cell carcinoma, lung	Human	高雄醫學大學附設中和醫院病理科
	256	Metastatic adrenal cortical carcinoma	Human	耕莘醫院病理科
	258	Hashimoto’s thyroiditis with diffuse large B cell lymphoma and papillary carcinoma	Human	高雄醫學大學附設中和醫院病理科
	262	Medullar thyroid carcinoma	Canine	臺灣大學獸醫學系
	264	Merkel cell carcinoma	Human	羅東博愛醫院
	266	Cholangiocarcinoma	Human	耕莘醫院病理科
	268	Sarcomatoid carcinoma of renal pelvis	Human	花蓮慈濟醫院病理科
	269	Mammary Carcinoma	Canine	中興大學獸醫學系
	270	Metastatic prostatic adenocarcinoma	Human	耕莘醫院病理科
	271	Malignant canine peripheral nerve sheath tumors	Canine	臺灣大學獸醫學系
	272	Sarcomatoid carcinoma, lung	Human	羅東聖母醫院
	273	Vertebra,T12,laminectomy, metastatic adenoid cystic carcinoma	Human	彰化基督教醫院

腫瘤	274	rhabdomyosarcoma	Canine	臺灣大學獸醫學系
	275	Fetal rhabdomyosarcoma	SD Rat	中興大學獸醫學系
	276	Adenocarcinoma, metastatic, iris, eye	Human	高雄醫學大學
	277	Axillary lymph node metastasis from an occult breast cancer	Human	羅東博愛醫院
	278	Hepatocellular carcinoma	Human	國軍桃園總醫院
	279	Feline diffuse iris melanoma	Faline	中興大學獸醫學系
	280	Metastatic malignant melanoma in the brain and inguinal lymph node	Human	花蓮慈濟醫院病理科
	281	Tonsil Angiosarcoma	Human	羅東博愛醫院
	282	Malignant mixed mullerian tumor	Human	耕莘醫院病理科
	283	Renal cell tumor	Rat	中興大學獸醫學系
	284	Multiple Myeloma	Human	花蓮慈濟醫院病理科
	285	Myopericytoma	Human	新光吳火獅紀念醫院
	287	Extramedullary plasmacytoma with amyloidosis	Canine	臺灣大學獸醫學系
	288	Metastatic follicular carcinoma	Human	羅東聖母醫院病理科
	289	Primitive neuroectodermal tumor (PNET), T-spine.	Human	羅東博愛醫院病理科
	292	Hemangioendothelioma of bone	Human	花蓮慈濟醫院病理科
	293	Malignant tumor with perivascular epithelioid differentiation, favored malignant PEComa	Human	彰化基督教醫院
	297	Mucin-producing cholangiocarcinoma	Human	基隆長庚醫院
	300	Cutaneous epitheliotropic lymphoma	Canine	臺灣大學獸醫專業學院
	301	Cholangiocarcinoma	Felis Lynx	臺灣大學獸醫專業學院
	302	Lymphoma	Canine	臺灣大學獸醫專業學院
	303	Solitary fibrous tumor	Human	彰化基督教醫院
	304	Multiple sarcoma	Canine	臺灣大學獸醫專業學院
	306	Malignant solitary fibrous tumor of pleura	Human	佛教慈濟綜合醫院暨慈濟大學
	307	Ectopic thymic carcinoma	Human	彰濱秀傳紀念醫院病理科
	308	Medullary carcinoma of the right lobe of thyroid	Human	彰化基督教醫院病理科
	309	Thyroid carcinosarcoma with cartilage and osteoid formation	Canine	臺灣大學獸醫專業學院
	312	Lymphocytic leukemia/lymphoma	Koala	臺灣大學獸醫專業學院
	313	Neuroendocrine carcinoma of liver	Human	佛教慈濟綜合醫院暨慈

				濟大學
腫瘤	314	Parachordoma	Human	羅東博愛醫院病理科
	315	Carcinoma expleomorphic adenoma, submandibular gland	Human	天主教耕莘醫院病理科
	316	Melanoma, tongue	Canine	國立臺灣大學獸醫專業學院
	317	Renal cell carcinoma, papillary type	Canine	國立臺灣大學獸醫專業學院
	323	Metastatic papillary serous cystadenocarcinoma, abdomen	Human	國軍桃園總醫院
	324	Malignant gastrointestinal stromal tumor	Human	天主教耕莘醫院
	329	Sclerosing stromal tumor	Human	彰化基督教醫院
	330	Pheochromocytoma	Human	天主教耕莘醫院
	334	Metastatic infiltrating ductal carcinoma, liver	Human	佛教慈濟綜合醫院
	335	Adenoid cystic carcinoma, grade II, Rt breast	Human	天主教耕莘醫院
	336	Malignant lymphoma, diffuse, large B-cell, right neck	Human	林新醫院
	337	Pulmonary carcinoma, multicentric	Dog	國立臺灣大學獸醫專業學院
	338	Malignant melanoma, multiple organs metastasis	Rabbit	國立中興大學獸醫學院
	340	Mucinous-producing urothelial-type adenocarcinoma of prostate	Human	天主教耕莘醫院
	342	Plexiform fibromyxoma	Human	彰化基督教醫院
	343	Malignant epithelioid trophoblastic tumor	Human	佛教慈濟綜合醫院
	344	Epithelioid sarcoma	Human	林新醫院
	346	Transmissible venereal tumor	Dog	國立臺灣大學獸醫專業學院
	347	Ewing's sarcoma (PNET/ES tumor)	Human	天主教耕莘醫院病理科
	348	Malignant peripheral nerve sheath tumor, epithelioid type	Human	林新醫院病理科
	349	Low grade fibromyxoid sarcoma	Human	高醫大附設中和紀念醫院病理科
	351	Orbital embryonal rhabdomyosarcoma	Dog	Gifu University, Japan (岐阜大学)
	354	Granular cell tumor	Dog	國立臺灣大學獸醫專業

				學院
腫瘤	356	Malignant neoplasm of unknown origin, cerebrum	Dog	國立臺灣大學獸醫專業學院
	357	Small cell Carcinoma, Urinary bladder	Human	天主教耕莘醫院
	364	Perivascular epithelioid cell tumor, in favor of lymphangiomyomatosi	Human	高醫大附設中和紀念醫院病理科
	365	Angiosarcoma, skin (mastectomy)	Human	天主教耕莘醫院病理科
	366	Rhabdomyoma (Purkinjeoma), heart	Swine	屏東縣家畜疾病防治所
	368	Langerhans cell sarcoma, lung	Human	高醫大附設中和紀念醫院病理科
	369	Biliary cystadenocarcinoma, liver	Camel	國立屏東科技大學獸醫教學醫院病理科
	371	Malignant melanoma, nasal cavity	Human	羅東博愛醫院病理科
	373	Malignant giant cell tumor of tendon sheath	Human	天主教耕莘醫院病理科
	376	Malignant mesothelioma of tunica vaginalis	Golden hamster	中興大學獸醫病理生物學研究所
	377	Perivascular Epithelioid Cell Tumor (PEComa) of the uterus	Human	彰化基督教醫院病理部
	378	Medullary carcinoma	Human	高雄醫學大學病理部
	389	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	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	Squamous cell carcinoma, lymphoepithelioma-like type	Human	高醫附設醫院病理科
	393	Malignant peripheral nerve sheath tumor (MPNST), subcutis, canine.	Dog	中興大學獸醫學系
	394	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	Atypical meningioma	Human	奇美醫院病理科
	401	Lymph nodes, excision --- Hodgkin's lymphoma, mixed cellularity	Human	天主教耕莘醫院
	402	1. Leukemia, nonlymphoid, granulocytic, involving bone marrow,	Mouse	國家實驗動物中心

		spleen, liver, heart, lungs, lymph nodes, kidney, hardian gland, duodenum and pancreas. 2. Pinworm infestation, moderate, large intestines. 3. Fibrosis, focal, myocardium.		
腫瘤	403	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	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	Castleman's disease	Human	羅東博愛醫院
	407	Hepatoid adenocarcinoma of colon with multiple liver metastases	Human	羅東博愛醫院
	408	Cardiac and pulmonary melanoma	Pig	國立中興大學獸醫病理生物學研究所
	409	1. Double Tumors: (1) small cell carcinoma of lung (2) Hodgkin's lymphoma, mixed cellularity type. 2. Acrokeratosis paraneoplastica	Human	佛教慈濟綜合醫院暨慈濟大學病理科
	410	Von Hippel–Lindau disease	Human	奇美醫院病理部
	411	Multiple neoplasia	Tiger	
	412	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
細菌	6.	Tuberculosis	Monkey	臺灣大學獸醫學系
	7.	Tuberculosis	Human	省立新竹醫院
	12.	H. pylori-induced gastritis	Human	台北病理中心
	13.	Pseudomembranous colitis	Human	省立新竹醫院
	26.	Swine salmonellosis	Pig	中興大學獸醫學系
	27.	Vegetative valvular endocarditis	Pig	台灣養豬科學研究所
	28.	Nocardiosis	Human	台灣省立新竹醫院
	29.	Nocardiosis	Largemouth bass	屏東縣家畜疾病防治所
	32.	Actinomycosis	Human	台灣省立豐原醫院

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

細菌	259	Tuberculous peritonitis	Human	彰化基督教醫院病理科
	260	Septicemic salmonellosis	Piglet	屏東科技大學獸醫系
	261	Leptospirosis	Human	慈濟醫院病理科
	267	Mycobacteriosis	Soft turtles	屏東科技大學獸醫系
	290	*Staphylococcus* spp. infection	Formosa Macaque	中興大學獸醫病理學研究所
	291	Leptospirosis	Dog	台灣大學獸醫學系
	296	Leptospirosis	Human	花蓮慈濟醫院
	305	Cryptococcus and Tuberculosis	Human	彰濱秀傳紀念醫院
	319	Placentitis, Coxiella burnetii	Goat	台灣動物科技研究所
	321	Pneumonia, Buirkholderia pseudomallei	Goat	屏東縣家畜疾病防治所
	339	Mycoplasmosis	Rat	國家實驗動物中心
	352	Chromobacterium violaceum Septicemia	Gibbon	Bogor Agricultural University, Indonesia
	353	Salmonellosis	Pig	國立中興大學獸醫學院
	367	Melioidosis (Burkholderia pseudomallei), lung	Human	花蓮慈濟醫院
	370	Suppurative bronchopneumonia (*Bordetellae trematum)* with *Trichosomoides crassicauda* infestation	Rat	國立中興大學獸醫學院
	374	Pulmonary coccidiodomycosis	Human	彰化基督教醫院
	375	Paratuberculosis in Macaca cyclopis	Macaca cyclopis	國立屏東科技大學獸醫學院
	379	Bovine Johne’s disease (BJD) or paratuberculosis of cattle	Dairy cow	屏東縣家畜疾病防治所
	380	NTB, Mycobacterium abscessus	Human	佛教慈濟綜合醫院暨慈濟大學病理科
	382	Leptospirosis	Pig	國立屏東科技大學獸醫學院
	384	Neisseria Infected Pneumonitis	Cat	中興大學獸醫學系
	385	Mycobacteria avian complex dacryocyctitis	Human	花蓮佛教慈濟綜合醫院
	387	Swine Erysipelas	Pig	屏東縣家畜疾病防治所
	396	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	Listeric encephalitis in dairy goats	Goat	屏東縣家畜疾病防治所
病毒	21.	Newcastle disease	Chicken	台灣大學獸醫學系
	22.	Herpesvirus infection	Goldfish	台灣大學獸醫學系

病毒	30.	Demyelinating canine distemper encephalitis	Dog	台灣養豬科學研究所
	31.	Adenovirus infection	Malayan sun bears	台灣大學獸醫學系
	50.	Porcine cytomegalovirus infection	Piglet	台灣省家畜衛生試驗所
	55.	Infectious laryngo-tracheitis (Herpesvirus infection)	Broilers	國立屏東技術學院獸醫學系
	69.	Pseudorabies (Herpesvirus infection)	Pig	台灣養豬科學研究所
	78.	Marek's disease in native chicken	Chicken	屏東縣家畜疾病防治所
	92.	Foot- and- mouth disease (FMD)	Pig	屏東縣家畜疾病防治所
	101.	Swine pox	Pig	屏東科技大學獸醫學系
	110.	Pseduorabies	Piglet	國立屏東科技大學
	112.	Avian encephalomyelitis	Chicken	國立中興大學
	128.	Contagious pustular dermatitis	Goat	屏東縣&台東縣家畜疾病防治所
	130.	Fowl pox and Marek's disease	Chicken	中興大學獸醫學系
	133.	Japanese encephalitis	Human	花蓮佛教慈濟綜合醫院
	136	Viral encephalitis, polymavirus infection	Lory	美國紐約動物醫學中心
	138	1. Aspergillus spp. encephalitis and myocarditis 2. Demyelinating canine distemper encephalitis	Dog	台灣大學獸醫學系
	153	Enterovirus 71 infection	Human	彰化基督教醫院
	154	Ebola virus infection	African Gree monkey	行政院國家科學委員會實驗動物中心
	155	Rabies	Longhorn Steer	台灣大學獸醫學系
	163	Parvoviral myocarditis	Goose	屏東科技大學獸醫學系
	199	SARS	Human	台大醫院病理科
	200	TGE virus	swine	臺灣動物科技研究所
	201	Feline infectious peritonitis(FIP)	Feline	台灣大學獸醫學系
	209	Chicken Infectious Anemia (CIA)	Layer	屏東防治所
	219	1. Lymph node:Lymphdenitis, with lymphocytic depletion and intrahistiocytic basophilic cytoplasmic inclusion bodies. Etiology consistent with Porcine Circovirus(PCV)infection.	Pig	臺灣動物科技研究所

		2. Lung: Bronchointerstitial pneumonia,moderate, lymphoplasmacytic, subacute.		
	220	Cytomegalovirus colitis	Human	彰化基督教醫院病理科
	221	Canine distemper virus Canine adenovirus type ll co-infection	Canine	國家實驗動物繁殖及研究中心
	223	1. Skin, mucocutaneous junction (lip): Cheilitis, subacute, diffuse, sever, with epidermal pustules, ballooning degeneration, proliferation, and eosinophilic intracytoplasmic inclusion bodies, Saanen goat. 2. Haired skin: Dermatitis, proliferative, lymphoplasmacytic, subacute, diffuse, sever, with marked epidermal pustules, ballooning degeneration, acanthosis, hyperkeratosis, and eosinophilic intracytoplasmic inclusion bodies.	Goat	台灣動物科技研究所
	238	Hydranencephaly	Cattle	國立屏東科技大學獸醫學系
病毒	248	Porcine Cytomegalovirus (PCMV) infection	Swine	國立屏東科技大學獸醫學系
	250	Porcine respiratory disease complex (PRDC) and polyserositis, caused by co-infection with pseudorabies (PR) virus, porcine circovirus type 2 (PCV 2), porcine reproductive and respiratory syndrome (PRRS) virus and *Salmonella typhimurium*.	Swine	屏東縣家畜疾病防所
	255	Vaccine-induced canine distemper	gray foxes	國立台灣大學獸醫學系
	265	Bronchointerstitial pneumonia (PCV II infection)	Swine	台灣大學獸醫學系
	295	Feline infectious peritonitis (FIP)	Cat	中興大學獸醫病理所
	362	Canine distemper virus infection combined pulmonary dirofilariasis	Dog	國家實驗研究院
	381	Polyomavirus infection of urinary tract	Human	羅東博愛醫院
	405	Porcine circovirus-associated	Swine	國立屏東科技大學獸醫

		lymphadenitis		教學醫院病理科
黴菌	23.	Chromomycosis	Human	台北病理中心
	47.	Lung: metastatic carcinoma associated with cryptococcal infection. Liver: metastatic carcinoma. Adrenal gland, right: carcinoma (primary)	Human	三軍總醫院
	48.	Adiaspiromycosis	Wild rodents	台灣大學獸醫學系
	52.	Aspergillosis	Goslings	屏東縣家畜疾病防治所
	53.	Intracavitary aspergilloma and cavitary tuberculosis, lung.	Human	羅東聖母醫院
黴菌	54.	Fibrocalcified pulmonary TB, left Apex. Mixed actinomycosis and aspergillosis lung infection with abscess DM, NIDDM.	Human	林口長庚紀念醫院
	105.	Mucormycosis Diabetes mellitus	Human	花蓮佛教慈濟綜合醫院
	127.	Eumycotic mycetoma	Human	花蓮佛教慈濟綜合醫院
	138	1. Aspergillus spp. encephalitis and myocarditis 2. Demyelinating canine distemper encephalitis	Dog	台灣大學獸醫學系
	298	Systemic Candidiasis	Tortoise	中興大學獸醫學院
	318	Alfatoxicosis in dogs	Canine	國立臺灣大學獸醫專業學院
	322	Allergic fungal sinusitis	Human	羅東博愛醫院
	326	Meningoencephalitis, Aspergillus flavus	Cat	國立臺灣大學獸醫專業學院
	331	Histoplasmosis	Human	花蓮慈濟醫院病理科
	332	Pulmonary Blastomycosis	Rat	中興大學獸醫學院
	355	Encephalitozoonosis	Rabbit	國立中興大學獸醫學院
	356	Eosinophilic granuloma with fungal infection, Skin	Cat	國立臺灣大學獸醫專業學院
	386	Dermatophytic pseudomycetoma	Cat	台灣動物科技研究所
	395	Systemic Cryptococcus neoformans infection in a Golden Retriever	Dog	國立台灣大學分子暨比較病理研究所
寄生蟲	14.	Dirofilariasis	Dog	台灣省家畜衛生試驗所

寄生蟲	15.	Pulmonary dirofilariasis	Human	台北榮民總醫院
	20.	Sparganosis	Human	台北榮民總醫院
	46.	Feline dirofilariasis	Cat	美國紐約動物醫學中心
	49.	Echinococcosis	Human	台北榮民總醫院
	60.	Intestinal capillariasis	Human	台北馬偕醫院
	64.	1. Adenocarcinoma of sigmoid colon 2. Old schistosomiasis of rectum	Human	省立新竹醫院
	66.	Echinococcosis	Chapman's zebra	台灣大學獸醫學系
	67.	Hepatic ascariasis and cholelithiasis	Human	彰化基督教醫院
	106.	Parasitic meningoencephalitis, caused by Toxocara canis larvae migration	Dog	臺灣養豬科學研究所
	139	Disseminated strongyloidiasis	Human	花蓮佛教慈濟綜合醫院
	141	Eosinophilic meningitis caused by Angiostrongylus cantonensis	Human	台北榮民總醫院病理檢驗部
	156	Parastrongylus cantonensis infection	Formosan gem-faced civet	中興大學獸醫學院
	157	Capillaria hepatica, Angiostongylus cantonensis	Norway Rat	行政院農業委員會農業藥物毒物試驗所
	202	Colnorchiasis	Human	高雄醫學院附設醫院
	203	Trichuriasis	Human	彰化基督教醫院
	204	Psoroptes cuniculi infection (Ear mite)	Rabbit	農業藥物毒物試驗所
	205	Pulmonary dirofilariasis	Human	和信治癌中心醫院
	206	Capillaries philippinesis	Human	和信治癌中心醫院
	207	Adenocarcinoma with schistosomiasis	Human	花蓮佛教慈濟綜合醫院
	286	Etiology- consistent with *Spironucleus* (*Hexamita*) *muris*	Rat	國家實驗動物繁殖及研究中心
	327	Dermatitis, mange infestation	Serow	中興大學獸醫學院
	328	Trichosomoides crassicauda, urinary bladder	Rat	國家實驗動物中心
	362	Canine distemper virus infection combined pulmonary dirofilariasis	Dog	國家實驗研究院
	370	Suppurative bronchopneumonia (*Bordetellae trematum)* with *Trichosomoides crassicauda* infestation	Rat	國立中興大學獸醫學院
原蟲	4.	Cryptosporidiosis	Goat	台灣養豬科學研究所

	15.	Amoebiasis	Lemur fulvus	台灣養豬科學研究所
	16.	Toxoplasmosis	Squirrel	台灣養豬科學研究所
	17.	Toxoplasmosis	Pig	屏東技術學院獸醫學系
	51.	Pneumocystis carinii pneumonia	Human	台北病理中心
	57.	Cecal coccidiosis	Chicken	中興大學獸醫學系
	65.	Cryptosporidiosis	Carprine	台灣養豬科學研究所
	211	Avian malaria, African black-footed penguin	Avian	臺灣動物科技研究所
	242	Neosporosis	Cow	國立屏東科技大學獸醫學系
原蟲	263	Intestinal amebiasis	Human	彰化基督教醫院病理科
	320	Cutaneous leishmaniasis	Human	佛教慈濟綜合醫院
	325	Myocarditis/encephalitis, Toxoplasma gondii	Wallaby	國立臺灣大學獸醫專業學院
立克次體	229	Necrotizing inflammation due to scrub typhus	Human	佛教慈濟醫院病理科
	251	Scrub typhus with diffuse alveolar damage in bilateral lungs.	Human	佛教慈濟醫院病理科
皮膚	216	Cytophagic histiocytic panniculitis with terminal hemophagocytic syndrome	Human	佛教慈濟綜合醫院病理科
	359	Eosinophilic granuloma with fungal infection, Skin	Cat	國立臺灣大學獸醫專業學院
	360	Septa panniculitis with lymphocytic vasculitis	Human	慈濟綜合醫院暨慈濟大學
其它	9.	Perinephric pseudocyst	Cat	台灣大學獸醫學系
	10.	Choledochocyst	Human	長庚紀念醫院
	11.	Bile duct ligation	Rat	中興大學獸醫學系
	37.	Myositis ossificans	Human	台北醫學院
	75.	Acute yellow phosphorus intoxication	Rabbits	中興大學獸醫學系
	76.	Polycystic kidney bilateral and renal failure	Cat	美國紐約動物醫學中心
	80.	1. Glomerular sclerosis and hyalinosis, segmental, focal, chronic, moderate 2. Benign hypertension	SHR rat	國防醫學院 & 國家實驗動物繁殖及研究中心
	83.	Phagolysosome-overload nephropathy	SD rats	實驗動物繁殖及研究心
	85.	Renal amyloidosis	Dog	台灣養豬科學研究所

其它	89.	1. Severe visceral gout due to kidney damaged 2. Infectious serositis	Goose	中興大學獸醫學系
	91.	Hypervitaminosis D	Orange-rumped agoutis	台灣大學獸醫學系
	118.	Cystic endometrical hyperplasia	Dog	臺灣養豬科學研究所
	121.	Cystic subsurface epithelial structure (SES)	Dog	國科會實驗動物中心
	124.	Superficial necrolytic dermatitis	Dog	美國紐約動物醫學中心
	125.	Solitary congenital self-healing histiocytosis	Human	羅東博愛醫院
	126.	Alopecia areata	Mouse	實驗動物繁殖及研究中心
	142	Avian encephalomalacia (Vitamin E deficiency)	Chicken	國立屏東科技大學獸醫學系
	151	Osteodystrophia fibrosa	Goat	台灣養豬科學研究所&台東縣家畜疾病防治所
	159	Hypertrophic cardiomyopathy	Pig	台灣大學獸醫學系
	165	Chinese herb nephropathy	Human	三軍總醫院病理部及腎臟科
	167	Acute pancreatitis with rhabdomyolysis	Human	慈濟醫院病理科
	171	Malakoplakia	Human	彰化基督教醫院
	183	Darier's disease	Human	高雄醫學大學病理科
	191	1. Polyarteritis nodosa 2. Hypertrophic Cardiomyopathy	Feline	台灣大學獸醫學系
	193	Norepinephrin cardiotoxicity	Cat	台中榮總
	196	Cardiomyopathy (Experimental)	Mice	綠色四季
	212	Kikuchi disease (histiocytic necrotizing lymphandenitis)	Lymphandenitis	耕莘醫院病理科
	225	Calcinosis circumscripta, soft tissue of the right thigh, dog	Dog	台灣大學獸醫所
	230	Hemochromatosis, liver, bird	Bird	台灣大學獸醫學系
	234	Congenital hyperplastic goiter	Holstein calves	屏東縣家畜疾病防治所
	236	Hepatic lipidosis (fatty liver)	Rats	中興大學獸醫學病理學研究所
	237	Arteriovenous malformation (AVM) of cerebrum	Human	耕莘醫院病理科
	244	Organophosphate induced delayed	Hens	中興大學獸醫學病理學

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

		Granulomatous Meningoencephalitis (GME)		教學醫院病理科

會 員 資 料 更 新 服 務

各位會員：

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

中華民國比較病理學會秘書處
10617 臺北市大安區羅斯福路四段 1 號
國立臺灣大學獸醫系三館 515 室 鄭謙仁秘書長 收
Tel: (02) 33663868
Fax: (02) 23621965
e-mail address: crjeng@ntu.edu.tw

----------中華民國比較病理學會----------

會員資料更改卡

姓　　名：_____　　會員類別：☐一般會員
☐學生會員
☐贊助會員

最高學歷：_____

服務單位：_____職　　稱：_____

永久地址：_____

通訊地址：_____

電　　話：_____傳　　真：_____

E-Mail Address：_____

中 華 民 國 比 較 病 理 學 會

誠摯邀請您加入

入　會　辦　法

一、 本會會員申請資格為：

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

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

（三）贊助會員：贊助本會工作之團體或個人。

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

二、 會員：

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

（二）常年會費：一般會員新台幣一仟元，學生會員一佰元。

【註：學生會員身份變更為一般會員時，只需繳交一般會員之常年會費】

三、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收。地址：10617 臺北市羅斯福路四段一號獸醫三館 515 室、電話：02-33663868、傳真 02-23621965。

中華民國比較病理學會入會申請及會員卡

會籍電腦編號 _____

<table>
<tr><td rowspan="2">姓名</td><td>中文</td><td></td><td rowspan="2">性別</td><td>男 □</td><td>出生</td><td colspan="2">民國 年 月 日</td><td rowspan="2">出生地</td><td rowspan="2">省

縣/市</td></tr>
<tr><td rowspan="2">英文</td><td rowspan="2"></td><td>女 □</td><td>身分證字號</td><td colspan="2"></td></tr>
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<tr><td rowspan="4">學歷</td><td colspan="4" rowspan="3">(1)
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(4)</td><td colspan="4">稱謂(請圈選) 先生 小姐 醫師 獸醫師
研究員 博士 教授 主任 其他: _____</td></tr>
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電子郵遞(E-mail)地址：</td></tr>
<tr><td colspan="7">茲 贊 同
貴會宗旨擬加入爲會員嗣後並願遵守一切規章共圖發展
此 致
中華民國比較病理學會
申請人 簽章
介紹人 簽章
介紹人 簽章
中華民國 年 月 日</td><td colspan="2">審核結果</td></tr>
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