Chinese Society of Comparative Pathology

中華民國比較病理學會

第 66 次比較病理學研討會

(乳突瘤病毒及相關疾病)

主辦單位

CHINESE SOCIETY OF COMPARATIVE PATHOLOGY

中華民國比較病理學會

協辦單位

College of Veterinary Medicine, National Chung Hsing University

國立中興大學獸醫學院獸醫病理生物學研究所

March 13, 2016 (中華民國 105 年 3 月 13 日)

SCHEDULE

66th MEETING OF COMPARATIVE PATHOLOGY

中華民國比較病理學會 第 66 次比較病理學研討會

時間：105 年 3 月 13 日(星期日)　　地點：中興大學獸醫學院 動物疾病診斷中心 108 室

地址：40227 台中市南區興大路 145 號　電話：(04) 22840894 ext. 315

Time (時間)	Schedule(議程)		Moderator (主持)
08:30~09:20	Registration (報到)		
09:20~09:30	Opening Ceremony (致詞) 廖俊旺 理事長		
09:30~10:20	專題演講	講題：Rapid Detection and Molecular Epidemiology of Avian Polyomavirus in Taiwan Dr. Shan-Chia Ou (歐繕嘉 助理教授) Graduate Institute of Microbiology and Public Health National Chung Hsing University (中興大學獸醫公共衛生暨微生物學研究所)	林正忠理事
10:20-10:50	Coffee Break(拍團體照)		
10:50~11:10	肉眼診斷 Case 453	Dr. Jia-Ying Wu (吳佳穎 獸醫師) Graduate Institute of Veterinary Pathobiology, National Chung Hsing University (中興大學獸醫病理生物學研究所)	林永和理事
11:10~11:30	Case 454	Dr. Sy-Harn Lian (連思涵 醫師) Department of Pathology, Buddhist Tzu-Chi General Hospital and University (佛教慈濟綜合醫院暨慈濟大學病理科)	
11:30~12:00	Case 455	Dr. Yang-Chang Tu (涂央昌 研究員) Animal Health Research Institute, Council of Agriculture, Executive Yuan (行政院農業委員會家畜衛生試驗所 疫學研究組)	劉振軒理事
12:00~13:30	Lunch, and Board Meeting (中華民國比較病理學會理監事會議)		
13:30~14:00	Case 456	Dr. Chia-Wen Shih (施洽雯 醫師) Department of Pathology, Lotung Poh-Ai Hospital (羅東博愛醫院)	劉振軒理事
14:00~14:20	Case 457	Dr. Wen-Da Lee (李文達 獸醫師) Graduated Institute of Molecular and Comparative Pathology School of Veterinary Medicine, NTU (台灣大學獸醫專業學院分子暨比較病理生物學研究所)	李進成理事
14:20~14:40	Coffee Break		
14:40~15:00	Case 458	Dr. Chia-Yin Chen (陳佳吟 獸醫師) Graduate Institute of Veterinary Pathobiology, National Chung Hsing University (中興大學獸醫病理生物學研究所)	李進成理事
15:00~15:20	Case 459	Dr. Chia-Chi Chen (陳佳其醫師) Kaohsiung Medical University Chung-Ho Memorial Hospital (高雄醫學大學附設中和紀念醫院)	蔡懷德監事
15:20~15:40	Case 460	Dr. Fang-Yi -Yi Tsai (蔡芳宜 獸醫師) Department of Veterinary Medicine, National Chung Hsing University (中興大學獸醫學研究所)	
15:40~16:30	General Discussion (綜合討論) & Member's Meeting (第七屆第三次會員大會)		

中興大學校內地圖


本次會場地點
國立中興大學
National Chung Hsing University
校區位置總配置圖
總務處編製 (2015/10/20 v.2)
五十米園林道路
興大路
國光路
南門路
忠明南路地下道入口
動科系館
獸醫館
運動場
體育館
室內游泳池
中興湖
圖書館
行政大樓
惠蓀堂
人文大樓
萬年樓
綜合教學大樓
社管大樓
雲平樓
應經一館
土木環工大樓
生物產業機電大樓
機械系館
資訊大樓
理學院大樓
化學系館
農環大樓
作物大樓
電機大樓
生命科學大樓
森林一館
森林二館
水保一館
水保二館
理工大樓
國農中心
應經二館A棟
食品暨生物科技大樓
興大廣場
男宿-仁齋
男宿-義齋
男宿-禮齋
男宿-智齋
男宿-信齋

目　錄

Special Lecture

(專題演講)

Rapid Detection and Molecular Epidemiology of Avian Polyomavirus in Taiwan

Shan-Chia Ou (歐繕嘉), (PhD, Auburn University)
Graduate Institute of Microbiology and Public Health College of Veterinary, Medicine,National Chung Hsing University, 250 Kuo Kuang Rd., Taichung 402, Taiwan
(國立中興大學微生物暨公共衛生學研究所)

The avian polyomavirus (APV) is a highly infectious virus that causes an acute and lethal disease in most parrot species. The disease is predominantly found in nestling budgerigars by the sign of feather dystrophy. Recently, the surveys of APV infection situations in psittacine birds were performed by PCR. However, the public conventional PCR assays for APV detection might amplify non-specific products and the sensitivity of the assays should be improved. These drawbacks could be avoided by developing the quantitative real-time PCR (qPCR) assay, which showed improved rapidity, sensitivity, reproducibility, and reduced the risks of contamination. A qPCR assay was developed based on GoTaq® qPCR Master Mix and the primer set was designed at the conserved region of an APV gene. The limitation of the qPCR assay reached 1×10^1 copies of viral DNA. The assay was highly specific and did not amplify any product from other avian viral and bacterial genomes (including PBFD, *Chlamydia*, *E. coli* and *Salmonella Typhimurium*). This newly assay also provided a reliable method to estimate viral loads in organ samples. For APV prevalence in Taiwan, we collected fecal and tissue samples from clinical cases and a breeding aviary. 443 samples from 22 genera and 41 species of psittaciform birds were checked by qPCR assay. Necropsy exam indicated hepatomegaly with hemorrhage and swollen spleens in the sick birds. The livers and kidneys were collected for qPCR analysis to prove the APV presence in these samples. The total positive rate was 37.47% (166/443) indicating the fact of APV persistently existing in Taiwan. Multiple gene sequencing assays were performed to check the molecular epidemiology of APV in Taiwan. The similarity of 20 isolates from Taiwan ranged from 98.3-100.0%. This investigation revealed that APV isolated from Taiwan was highly conserved. The sequencing results of 20 isolates in this study also indicated that there was no significant difference by comparing with worldwide sequences in the tested gene regions.

Gross Show

Case Number: 453
Slide No.: CO16-046
Slide view: http://www.ivp.nchu.edu.tw/slide_view.php?id=1013

Jia-Ying Wu (吳佳穎), DVM[1], Zhong-Sheng Li (李忠昇), DVM[2], Chia-Lin Ho (何佳霖), DVM[3], Kwong-Chung Tung (董光中) , DVM, PhD[1] , Cheng-Chung Lin (林正忠), DVM, PhD[3]*

[1] Department of Veterinary Medicine, National Chung Hsung University (中興大學獸醫系)
[2] National Animal Industry Foundation (中央畜產會)
[3] Graduate Institute of Veterinary Pathobiology, National Chung Hsing University (中興大學獸醫病理生物所)

CASE HISTORY

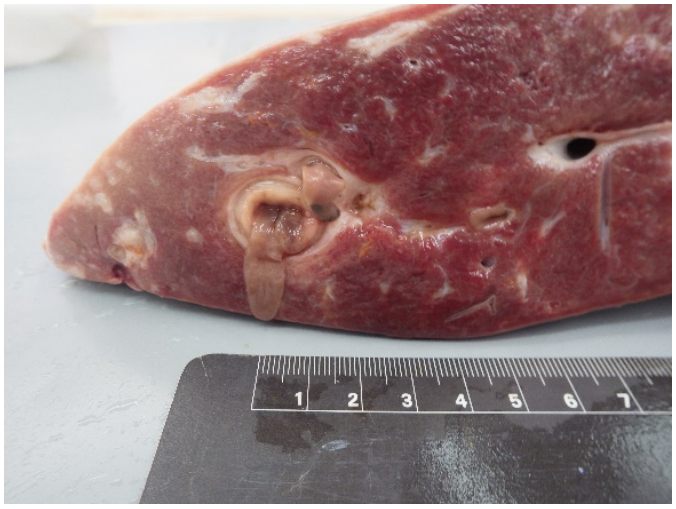
Signalment: Adult, male native buffalo, mild emaciated and depression

Clinical history:

The farm has had long liver fluke infection history with no significant clinical signs. The buffalo was sent to the slaughterhouse and submitted the condemned liver sample to Animal Disease Diagnostic Center of National Chung Hsing University.

Gross finding:

The liver showed whitish and thick capsule. Diffused white patches were on the surface. The liver was pale. Many flat organisms within the bile ducts were noticed in the section of the liver and the gall bladder, while the wall of bile ducts showed thickening. The liver texture was meaty. The lobule capsule showed distinct and whitish fibrotic changes. The gall bladder wall was edematous and 1 cm thick. The flat grayish-yellow organism was 4cm length and remarkable leaf-like shape.



Figure

Many flat organisms were found in the cut section. The bile duct was thicked with irregular fibrosis in the parenchyma.

Case Number: 453

CASE RESULTS

Histopathological findings:

Connective tissue hyperplasia and smooth muscle hyperplasia, with some nodular hyperplasia, were noticed around the bile ducts and blood vessels. Lymphatic inflammatory cells infiltration in portal trial. Lymphatic dilated was noticed. Bile ducts showed plexiform hyperplasia. Capsule fibrosis was noticed. Hepatocyte atrophy and collapse were noticed. Organism section with oral sucker, gastrointestinal tract, testis and ovaries were noticed in the bile ducts. Some yellow-brown pigment was noticed in the gastrointestinal tract.

Gall bladder showed mucosa, connective tissue severe hyperplasia and lymphatic inflammatory cell infiltration. Smooth muscle hyperplasia was noticed.

Differential diagnosis:

1. Liver fluke infection
2. *Ascaris suum* infection
3. Bovine parasitic hepatitis
4. Bovine mycotic hepatitis

Diagnosis:

Liver fluke infection (proliferative cholangiohapatitis, fibrosis, fibrosed and thickened duct wall, and liver flukes within the ducts)

Discussion:

Fasciolaliasis is caused by *Fasciola* sp., which have variable final host but mainly cattle. Cattle are infected by ingesting the metacercaria-containing freshwater plants. In Taiwan, buffalos are grazed in field. If the pasture is close to river or lake, it may contaminate by fasciola metacercaria [(1)]. After ingestion, the metacercaria will migrate through the intestinal wall, the peritoneal cavity, and the liver parenchyma into the biliary ducts, where they develop into adult flukes. Because of the lifestyle of Taiwan buffalo and lifecycle of *Fasciola hepatica*, suspicion of high prevalence in buffalo population is reasonable.

Identification of organism is the diagnosis criteria. According to the size , shape and anatomical structure, the organism was *Fasciola hepatica*. Differential diagnosis is based on the section of liver. Liver flukes can be seen in the bile duct. *Ascaris suum* infection, which is found in pigs, shows white patched on the surface. Bovine parasitic hepatitis, caused by *Capillaria* spp.,shows yellowish-white or pale yellowish-green patches, spots or streaks on the surface and in the parenchyma. Bovine mycotic hepatitis shows multifocal white spots. In this case, there were many liver flukes in the section, which eliminated other differential diagnoses.

Fasciolosis is an important zoonotic disease, with up to 2.4 million people infected and

approximately 180 million at risk; significant levels of infection are recognized in Africa, Europe, the Middle East and Egypt. There had never been any case reports in human in Taiwan. The prevalence was 2.3% in yellow cattle(2012)[2] and 0.2% in dairy cow(2014) [3] in Taiwan. There was no epidemic investigation yet in buffalo in Taiwan.

In human, liver flukes have reported an association with various hepatobiliary pathological changes, including cholangitis, cholecystitis, cholelithiasis, cirrhosis, hepatocellular carcinoma and cholangiocarcinoma and *Fasciola hepatica* is mostly associated with cirrhosis.[5] In cattle, proliferative cholangiohapatitis, fibrosis, fibrosed and thickened duct wall are classic histopathological findings. [1]

When one case is diagnosed, the whole herd should be treated. Besides flukicides, environmental protection such as restricts drainage of wet pastures, the closure of open ditches, fencing off habitat and pasture rotation are needed to eliminate the intermediate hosts. Vaccines are also available.

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3. Huang CC, Wang LC, Pan CH, Yang CH, Lai CH. Investigation of gastrointestinal parasites of dairy cattle around Taiwan. J Microbiol Immunol Infect **47**: 70-74. 2014.
4. Tung KC, Huang CC, Pan CH, Yang CH, Lai CH. Prevalence of Gastrointestinal Parasites in Yellow Cattle between Taiwan and its Offshore Islands. Thai J Vet Med. **42**: 219-224. 2012.
5. Xia J, Jiang SC, Peng HJ. Association between Liver Fluke Infection and Hepatobiliary Pathological Changes: A Systematic Review and Meta-Analysis. Plos One **10**: e0132673. 2015.

MEETING OF COMPARATIVE PATHOLOGY

March 13, 2016

中華民國比較病理學會第 66 次比較病理學研討會

CASE DIAGNOSIS

Case No.	Presenter	Slide No.	Diagnosis
肉眼診斷 Case 453	吳佳穎	CO16-046	Liver fluke infection http://www.ivp.nchu.edu.tw/slide_view.php?id=1013
Case 454	連思涵	S2015-15526B	Eosinophilic granuloma http://www.ivp.nchu.edu.tw/slide_view.php?id=1012
Case 455	涂央昌	2015-2364-10	Goose Haemorrhagic Polyomaviruses (GHPV) http://www.ivp.nchu.edu.tw/slide_view.php?id=1019
Case 456	施洽雯	LP16-00053	HPV associated small cell neuroendocrine carcinoma of uterine cervix. http://www.ivp.nchu.edu.tw/slide_view.php?id=1014
Case 457	李文達	NTV2015-870	Metastatic squamous cell carcinoma (SCC), most likely originating form penile SCC, with involvement of the lung, lymph nodes, ureter, omentum, and peritoneum http://www.ivp.nchu.edu.tw/slide_view.php?id=1011
Case 458	陳佳吟	CP15_1102B	Roventricular dilatation disease (PDD) http://www.ivp.nchu.edu.tw/slide_view.php?id=1018
Case 459	陳佳其	KMU-14-09018 _AI.CI	1.Uterus, cervix, high grade squamous intraepithelial lesion (SIL) 2.Vulva, condyloma acuminatum http://www.ivp.nchu.edu.tw/slide_view.php?id=1010
Case 460	蔡芳宜	CO15-824A	Subcutaneous liposarcoma and uterine endometrial stromal sarcoma in an African hedgehog http://www.ivp.nchu.edu.tw/slide_view.php?id=1015

Case Number: 454
Slide No.: S2015-15526B
Slide view: http://www.ivp.nchu.edu.tw/slide_view.php?id=1012

Sy-Harn Lian (連思涵), Yung-Hsiang Hsu (許永祥), M.D.
Department of Pathology, Buddhist Tzu-Chi General Hospital and University
(佛教慈濟綜合醫院暨慈濟大學病理科)

CASE HISTORY

Signalment: 55-year-old female

Clinical History:

She is a Green Island resident and eats sashimi occasionally but no other contact history to wild animals. She had 10 kilograms body weight loss with right upper quadrant abdominal pain one and half year prior to this admission. Further ultrasound and computer tomography showed chronic cholecystitis with several gallstones. Therefore, she underwent cholecystectomy one year prior to this admission, and her abdominal pain relieved. Her body weight regained 5 kilograms. However, mid-back pain over costophrenic angle without fever, chills happened five months prior to this admission. This time, her absolute eosinophil count was 717 cells/μL and total/direct bilirubin, AST and ALT were all within normal range. The abdominal ultrasound showed 1.5 cm hypoechoid lesion over right liver. Further 4 phase CT showed enhanced and poor marginated lesion in posterior hepatic S7. The MRI showed lobular, poor marginated and heterogenous enhanced lesion in posterior hepatic S7, which showed mainly enhanced lining irregular wall. Due to liver abscess was highly suspected, she received S7 segmentectomy.

Gross Findings:

There are two tumors in S7, closing to each other. A 2-cm irregular enlongated yellow solid tumor & a 1.4 cm round yellow tumor were found in specimen. On cut, one irregular whitish mass lesion, measuring 2.2 x 1.3cm in dimension. Grossly, the lesion is at least 0.2 cm away from the resection margin. Grossly, the margin is not involved.

Case Number: 454

CASE RESULT

Histopathologic Findings:

The so-called S7 tumor has three parts.The center is necrotic area surrounded by necrotic debris, eosinophils and granulation tissue. There is eosinophil infiltration at outermost layer.

Differential Diagnosis:

Liver abscess

Diagnosis:

Eosinophilic granuloma

Discussion:

VLM (visceral larva migrans), as originally described, refers to a syndrome characterized by extreme chronic eosinophilia accompanied by eosinophil-rich granulomatous lesions in an enlarged liver, together with some degree of pulmonary involvement, most often caused by the larvae of dog and cat ascarids of the genus Toxocara. The individual granulomatous lesions of VLM have a characteristic appearance, and when occurring in the viscera, the term “visceral eosinophilic granuloma” is appropriate. The liver is one of the more common sites for such lesions.

Visceral eosinophilic granulomas may cause diagnostic difficulties because no causative agent may be found morphologically. Identification of an eosinophilic granuloma in the liver should suggest the diagnosis of VLM and prompt a search for the causative organism with serial sectioning of the block and serology for Toxocara and other causative parasites.

The detection of parasite antigens by immunohistochemistry may be helpful in some cases of eosinophilic granulomas without identifiable larvae in the tissues.

Reference:

1. Keith J. Kaplan, M.D, et al. Eosinophilic Granuloma of the Liver. The American Journal of Surgical Pathology 25 (10): 1316–1321. 2001.

Case Number: 455
Slide No.: 2015-2364-10
Slide view: http://www.ivp.nchu.edu.tw/slide_view.php?id=1019

Yang-Chang Tu (涂央昌), DVM[12]; Yen-Ping Chen (陳燕萍), DVM, Ph.D[1]; Jen-Chieh Chang (張仁杰), DVM[1]; Wei-Cheng Hsu (許偉誠), DVM[1]; Shu-Chia Hu (胡書佳), DVM[1]; Ming-Chu Cheng (鄭明珠), PhD[1]; Chian-Ren Jeng (鄭謙仁), DVM, PhD[2].

[1] Animal Health Research Institute, Council of Agriculture, Executive Yuan (行政院農業委員會家畜衛生試驗所)
[2] Institute of Molecular and Comparative Pathobiology, School of Veterinary Medicine, National Taiwan University (國立台灣大學獸醫專業學院分子暨比較病理生物學研究所)

CASE HISTORY

Signalment: Goslings, 28-day-old, White Roman Geese

Clinical History:

In March 2015, a disease outbreak in young birds was observed in Mid-southern Taiwan. The cumulative mortality rate was 15.3% (550/3,600). The infected goslings generally developed normally and then the sudden onset of disease appeared and some diseased goslings died without clinical signs.

Gross Findings:

At necropsy, there was the accumulation of clear, yellowish, transparent, watery fluid in the coelomic and pericardial cavity. The gritty, white, chalk-like urate deposited on the surface of internal organs, such as pericardium, liver, mesentery, and coelomic serosa. The kidneys were swelling, mottled pale to yellowish in color, and hard in texture. The slight enlargement of liver had irregularly mottled pale in color.

Case Number: 455

CASE RESULT

Histopathologic Findings:

Liver: The moderate acute hemorrhage associated with individual hepatocyte necrosis is observed. There is also a focal aggregation of inflammatory cell in the tunica intima of a portal vein.

Kidney: There is an acute necrosis of renal tubules characterized by coagulative necrosis, accompanied with hemorrhage and mineralization. The lesion is specifically located around area of intralobular vein. This specific area is mainly composed of distal convoluted tubule in avian species. In the subacute stage of the lesion, the renal tubules are multifocally expanded and replaced by sharp, radiating, crystalline deposits and surrounded by moderate numbers of degenerate heterophils and macrophages. The glomeruli also have the presence of loss of cellular detail, eosinophilic cellular debris and pyknotic nuclei. Mild accumulation of edematous fluid around perivascular wall admixed with few lymphocytes infiltration is observed.

Adrenal gland: Multiple necroses with hemorrhage are noted.

Small intestine: In the tunica muscularis externa, there are profound of necrotizing vasculitis characterized by the infiltration of lymphoplasmacytic cells within and around the blood vessel wall, necrosis of endothelial and smooth muscle cells, and the presence of endothelial cells hypertrophy, and hemorrhage.

Laboratory Examination:

Polymerase chain reaction:

A set of specific primer was developed for the detection of VP1 gene of avian polyomavirus. A segment of specific polyomavirus nucleic acid in different organs including brain, heart, kidney, liver, lung, and spleen was amplified. The amplified sequence was aligned with GenBank sequences using BLAST on NCBI, and over 99% of similarity with the goose hemorrhagic polyomavirus (GHPV) was obtained.

In situ hybridization (ISH):

For the development of probes, a part of VP1 gene of the GHPV was inserted into the PCRII-TOPO plasmid vector (invitrogen). The DIG-labeled VP1 gene of GHPV probe was generated with the PCR DIG Probe Synthesis Kit (Roche Diagnostics GmbH, Mannheim, Germany), following the manufacturer’s instruction. The distribution and localization of viral nucleic acid was noted in the endothelial cells of arteries, veins, and capillary throughout the body.

Differential diagnosis:

1. Highly pathogenic avian influenza
2. Derzy's disease (goose parvovirus)

Pathological Diagnosis:

1. Kidney: Tubulointerstitial nephritis, necrotizing, acute to subacute, zonal, severe, with mild vasculitis, hemorrhage, mineralization, and gouty tophi, multiple, goose
2. Liver: necrosis, coagulative, acute, mild, multiple, with acute hemorrhage, and vasculitis, mild, goose
3. Small intestine: panvasculitis, necrotizing, severe, intramascularis, with mild hemorrhage, goose
4. Adrenal gland: necrosis, coagulative, acute, multiple, with mild hemorrhage, goose

Discussion:

This is the first confirmed case of GHPV in Taiwan which occurred in 2015. GHPV was named hemorrhagic nephritis and enteritis of geese (HNEG), which is one of the major diseases of geese in Europe. HNEG was first described in Hungary in 1969 and the causative agent was identified as a polyomavirus by PCR in 2001. The family *Polyomaviridae* which currently represents the single genus Polyomavirus is comprised of three genera. The genera *Orthopolyomavirus* and *Wukipolyomavirus* contain polyomaviruses isolated from mammalian species; while *Avipolyomavirus* contains all avian species. Well-known polyomaviruses isolated from birds include Avian Polyomaviruses (APV) or Goose Haemorrhagic Polyomaviruses (GHPV), which are highly pathogenic and cause acute and chronic inflammatory diseases, especially in young birds. HNEG is characterized by high morbidity and high mortality in geese 4 to 10 weeks old, especially in gosling. Sudden death is the most common outcome, generally preceeded by coma. At necropsy, edema of subcutaneous tissue, gelatinous ascites, hemorrhagic enteritis and nephritis are common findings. Hepatomegaly, splenomegaly, hydropericardium and pulmonary edema are occasionally seen. Histopathologically, the lesions in the kidneys are zonal distributed which is located surrounding the intralobular vein area and distal renal tubules are the major component in this sector. The lesions consist of necrosis of tubular epithelial cell with small hemorrhage in acute stage, or the presence of urate crystal deposits and intertubular fibroblast proliferation in subacute stage. Other lesions are serous hepatitis with fatty infiltration of hepatocytes, hemorrhagic enteritis, hemorrhages in various organs, and lymphocyte depletion in the lymphoid organs.

In the present case, the most obvious findings are zonal acute necrosis of renal tubules characterized by coagulative necrosis, where is located around area of intralobular vein. The lesion is caused by hypoxia due to local deprivation of bloody supply. Normally, the venous drainage from the interlobular to the intralobular vein occurs via a venous capillary network between the tubular segments in avian. In the periphery of the lobule, the tubules lay close together and the veins are narrow. More centrally, the tubules are separated by large capillaries with increasing lumina that eventually resulting in large venous channels towards the intralobular vein. This could be explained the zonal distribution of the renal tubular lesion in this case. The necrotic renal epithelium may

proceed to mineralization and eventually cause systemic gout deposition in the sick bird. The viral particles have been confirmed in the nuclei of endothelial cells by EM in review articles. In the present case, the ISH is established and positive signals are detected in the vascular endotheliums. The ISH observation in GHPV has not been described in the literatures. The signals of viral nucleic acid are found in the different sizes of arteries and veins, and even in the capillary (sinusoid and glomeruli) throughout the body. Thrombosis is rarely observed; only mild vasculitis can be seen. Curiously, the severe necrotizing panvasculitis only can be seen in the tunica muscularis externa of intestine. The pathogenesis of GHPV is consistent with viral replication in the endothelial cells, resulting in endothelial cell necrosis and subsequently increased blood vessel permeability, as well as a secondary circulation disorders, such as edema, hemorrhages, and ischemic necrosis in the adjacent parenchyma.

HNEG is a fatal disease of young geese caused by infection with GHPV that has been reported in all geese major-producing countries in Europe and now in Taiwan. At present, we have set up the ISH technique and it will be applied in more detail study to resolve the undefined disease mechanisms in GHPV infection.

References:

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7. Lacroux C, Andreoletti O, Payre B, Pingret JL, Dissais A, Guerin JL. Pathology of spontaneous and experimental infections by Goose haemorrhagic polyomavirus. Avian Pathol. 33:351-358. 2004.
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9. Pingret JL, Boucraut-Baralon C, Guérin JL. Goose haemorrhagic polyomavirus infection in ducks. Vet Rec. 162:164. 2008.

Case Number: 456
Slide No.: LP16-00053
Slide view: http://www.ivp.nchu.edu.tw/slide_view.php?id=1014

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CASE HISTORY

Signalment: 59-year-old women.

Clinical History:

A 59-year-old woman presented to the Gynecologic OPD (Out Patients Department) of Lotung Poh-Ai Hospital with the chief complaint of abnormal vaginal bleeding for about 3 months. She has taken hormonal therapy for 25 years. She has past history of bilateral oophorectomy due to endometrioma of bilateral ovaries. On physical examination, no abdominal tenderness nor abdominal mass was noted. Her general condition and laboratory investigations are found to be within normal limits except mild low MCHC (mean corpuscular hemoglobin concentration). Per vaginal examination revealed one protruding fragile hemorrhagic tumor mass about 5-6 cm in diameter over external cervical orifice. Cervical Pap smear was performed and the report showed malignancy. Then, cervical biopsy was performed.

Pelvic ultrasound showed a cervical mass about 6.3 x 5.8 cm. CT scan showed an irregular mass about 5.0 cm in greatest diameter located in the uterine cervix. No evidence of parametrial or vaginal invasion. Small pelvic lymph nodes were noted but no definite lymphadenopathy was seen.

Grossly, the specimens submitted consisted of 4 small tissue fragments measuring up to 1.1 x 0.8 x 0.5 cm. They were grayish-brown color and soft consistency.

Clinical Pathology:

Creatinine: 0.9 mg/dL (0.6-1.1 mg/dL), RBC: 4.38x106/μL (4.2-5.4 x 10^6/μL), Hb: 12.6 gm/dL (12.0-16.0 gm/dL), Hct: 39.8 % (37-47%), Plt: 28.7 x10^4/dL (15-40 x10^4/dL), WBC: 6600/μL (4500-11000/μL).

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CASE RESULT

Histopathologic Findings:

Microscopically, the tissue fragments contain individual or sheets of neoplastic cells with small and hyperchromatic nuclei, inconspicuous or distinct nucleoli and scanty cytoplasm. The nuclei of most of the tumor cells showed a salt and pepper chromatin with inconspicuous or distinct nucleoli. Frequent mitoses and areas of nuclear molding, acute and chronic inflammatory cells infiltrate with hemorrhage and areas of tumor necrosis are also noted.

Immunohistochemistry:

Sections of tissue specimen were subjected for immunohistochemical evaluation. On immunohistochemical analysis, the tumor cells showed positivity for cytokeratin, synaptophysin, CD56 and P16, and negativity for chromohranin A, CK5/6 and P63.

Differential diagnosis:

1. Small cell variant of squamous cell carcinoma.
2. Malignant lymphoma.
3. Small cell neuroendocrine carcinoma.

Diagnosis: HPV associated small cell neuroendocrine carcinoma of uterine cervix.

Comments:

Neuroendocrine cells have been identified within normal epithelium throughout the female genital tract. Neuroendocrine tumors (NETs) of the female genital tract are thought originating from these neuroendocrine cells. NETs are neoplasms that are composed of cells which have features of both the endocrine as well as the nervous system. They can be classified as benign or malignant. Four subtypes of NETs have been delineated: (1) Small cell neuroendocrine carcinoma (SCNEC); (2) Large cell neuroendocrine carcinoma (LCNEC); (3) Typical carcinoid tumor; (4) Atypical carcinoid tumor. Of these four types, carcinoid tumors, although malignant, are considered to be well differentiated and therefore have a more indolent course and favorable prognosis. Poorly differentiated or high grade neuroendocrine carcinoma (NEC) includes SCNEC and LCNEC. Of the four subtypes, SCNEC is most common and LCNEC is the second most common of NEC arising from the cervix.

About 12,000 women in the United States were diagnosed with cervical cancer in 2012. That means that approximately 1 in 147 women developed cervical cancer in their lifetime. There are many different types of cervical cancer, named after the appearance of the cells under the microscope. The most common type is squamous cell cancer, accounting for 70% of all cervical cancers. The second most common is adenoocarcinoma, which accounts for 20-25% of all cervical cancer. NETs account for only 2% of all cervical cancers. Therefore, approximately 250 women are

diagnosed annually with NEC of the uterine cervix in the United States.

In one study, when compared to women with the more common squamous cell carcinoma of the cervix, women were slightly younger at the time of diagnosis. The mean age at diagnosis was 49 years-old (compared to 52 years-old of squamous cell carcinoma). The median age of diagnosis or SCNEC is in the fifth decade with range 21-87 years.

SCNEC of the cervix is a rare and very aggressive tumor. Because SCNEC of the cervix is uncommon, the etiology and predisposing risk factors are poorly understood. The Human Papilloma Virus (HPV) and smoking are now well-known risk factors for developing most other kinds of cervical cancer, less is known about the role they play in development SCNEC of the cervix. Several studies have demonstrated a relationship between HPV infection especially HPV 18 and SCNEC of the cervix. However, unlike HPV-associated squamous cell carcinoma and adenocarcinoma of the cervix which have a preinvasive lesion that can often be detected by routine screening methods prior to growth of an actual cancer, no such preinvasive phase appears to exist for SCNEC.

HPV is of etiologic significance in the development of cervical squamous cell carcinoma and is noted to result in p16 overexpression. Identification of HPV is clinically important because the presence of HPV has prognostic and epidemiologic associations. Detection of HPV by polymerase chain reaction (PCR) is expensive and not widely accessible. Authors examined p16 immunohistochemistry as a surrogate marker for high-risk HPV and its use as an alternative test to PCR. P16 IHC is a technically simple and widely available test.

In general, the symptoms of SCNEC do not appear to differ significantly from those of other types of cervical cancer. Like other cancers of the uterine cervix, the symptoms of SCNEC of the cervix typically depend on the extent of disease. However, because of the aggressive nature of these tumors, patients more frequently have advanced disease at the time of initial diagnosis. Similar to other cervical cancers, symptoms may include vaginal discharge, abnormal vaginal bleeding including postcoital bleeding , and pelvic pain. The most common symptom is vaginal bleeding. More advanced disease can include symptoms of weight loss, abdominal bloating, or symptoms specific to metastatic disease. Occasionally, like NETs of the lung, small cell cancer of the cervix can present with paraneoplastic syndromes affecting the endocrine and/or nervous systems such as hypercalcemia, neurologic disorders, Cushing’s syndrome, and SIADH (syndrome of inappropriate antidiuretic hormone secretion).

Sometimes, routine gynecologic examination may reveal a cervical mass. Biopsy should be performed of any cervical mass to determine a more definitive diagnosis. Occasionally, early disease may be detected by routine screening Pap smear. Although Pap smear may detect the disease, the efficacy of it as a screening modality is unknown, and it likely performs worse than it does for other cervical cancers. Some women with SCNEC of the cervix have had normal annual Pap smears leading up to the time they were diagnosed with cancer.

Under the microscope, SCNECs of the cervix appear identical to those originating in the lung. SCNECs are characterized by small round or ovoid nuclei, high N/C ratio, nuclear molding, salt and pepper chromatin, inconspicuous nucleoli, high mitotic rate, extensive necrosis, and

frequent lymphovascular space involvement. The histopathologic diagnosis was facilitated with immunohistochemistry, which showed positive for neuron specific enolase (NSE), chromogranin, synaptophysin and CD56. Of note, sometimes the neuroendocrine component of the cancer may be missed on a tissue biopsy and will not be made until more tissue is obtained, such as at the time of surgery.

Once a tissue diagnosis has been made, further investigation will be made to determine the extent of spread of disease, or the stage of disease. Two different staging systems have been used to describe this disease. The FIGO (The International Federation of Gynecology and Obstetrics) system is the one used to describe all cervical cancers, while the two-tiered system used to describe small cell carcinomas of the lung is also used. When there is a known diagnosis of SCNEC of the cervix prior to starting treatment, more extensive workup is recommended. Additional imaging of the chest and abdominopelvic cavities is recommended. This can be accomplished with CT imaging. PET/CT imaging may also be considered. The staging of SCNECs of the cervix follows that for traditional cervical cancer. It is important to recognize the increased risk for lymphovascular space invasion and high rate of extrapelvic recurrences, which correlate with a poor prognosis.

Treatment for small cell cervical cancer usually starts soon after you've had your biopsy and diagnosis. Doctors usually treat SCNEC of uterine cervix with a combination of chemotherapy, radiotherapy and surgery. Chemotherapy is usually the first treatment. The chemotherapy for small cell cervical cancer is different from other types of cervical cancer. Doctors treat it in a similar way as they would a small cell cancer of the lung, a combination of 2 or 3 chemotherapy drugs was suggested. The drugs that doctors usually give are Cisplatin or carboplatin, Etoposide and Paclitaxel.

Surgery for SCNEC of uterine cervix is the same as for other types of cervical cancer. A total hysterectomy should be performed for SCNEC.

Combination chemotherapy in addition to concurrent radiation can be used for advanced stage and recurrent disease. While initial response rates are high (50-79%), recurrent or progressive chemoresistant disease frequently develops. The mean time to recurrence was 19.9 months.

Newer chemotherapy treatments such as temozolomide and multiple molecular targets for treatment of NECs have been identified. Potential therapeutic targets include CD56, a neural cell adhesion molecule that is expressed by NECs. A monoclonal antibody for CD56, linked to the cytotoxic compound DM-1 is used.

Like most cancer, the prognosis depends on the stage of disease at the time of diagnosis. In one study of women with SCNEC of the cervix, 71% of patients were diagnosed with early stage disease (stage I-IIA), 24% were diagnosed with locally advanced disease (stage IIB-IVA), and 4% with diagnosed with distant metastatic disease (stage IVB). Smoking has been linked to a worse clinical outcome for SCNEC of uterine cervix.

When looking at patients diagnosed at all stages, the five year survival for SCNEC of the uterine cervix is worse than that for other more common types of cervical cancer (36 vs 60-70%). The 5-year survival was 37% for those with I-IIA disease versus 9% for those with more advanced disease. In a series of study showed that the 5-year survival for stage I was 42%, stage II 19%, stage

III 10% and stage IV 23%.

It appears that prognosis for SCNEC originating from the cervix is better than when originating in the lung. As noted above, while the five year survival for patients with early stage SCNEC of the cervix ranges from 19- 42%, the survival for limited stage lung cancer is about 10%. Similarly, the survival for those with extensive stage disease of the cervix is about 10-23%, while the comparable survival rates for disease starting in the lung is 1-2%.

Conclusion:

SCNEC of uterine cervix is a rare and aggressive tumor, accounting for about 2% of all cervical carcinomas. HPV especially HPV 18 is of etiologic significance in the development of SCNEC of uterine cervix and is noted to result in p16 overexpression. SCNEC is generally managed with a multimodality approach. It has poor prognosis with 5-year survival about 36 %.

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CASE HISTORY

Signalment: 22-year-old castrated male horse

Clinical History:

The animal was in a poor body condition (BCS: 1/5) and suddenly died.

Gross Findings:

Large amount of translucently yellow pericardial, pleural, and peritoneal fluid was found, and there were numerous variably sized white nodules/plaques on the omentum and peritoneum. Multiple lymph nodes were swollen, and the cut sections showed several generally white masses. His penis was prolapsed and multiple cauliflower-like structures and ulcerations were also noted.

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CASE RESULT

Histopathologic Findings:

Omentum:

Aggregates of neoplastic cells were noted on the fibrovascular connective tissues. The neoplastic cells were round to polygonal and arranging into honeycomb and island patterns. The neoplastic cells had an eosinophilic cytoplasm with amorphous intracytoplasmic eosinophilic substance, and a round, polygonal or irregular-shaped nucleus with clumped chromatin and 1-2 prominent nucleoli. Mitotic figures were frequently observed with an average of 2-3 per high power field. Binucleated to multinucleated cells were also found.

Lung:

Aggregates of the same neoplastic cells were noted in the blood vessels and/or perivascular regions with varying degree of desmoplastic myxoid fibrous connective tissue.

Lymph nodes:

The normal architecture of lymph nodes was effaced by the same neoplastic cells with the presence of massive necrosis.

Small intestine:

Intestinal villi were necrotic and covered by fibrinous exudate and cell debris admixed with bacterial clumps. Mild lymphoplasmacytic infiltration was diffusely noted in the submucosa. Occasionally, 3 to 4-mm-diameter round homogenous eosinophilic substance within a 5-6-mm-diameter clear space was noted in cryptal epithelial cells.

Ureter:

In the lamina propria, aggregates of the same neoplastic cells were noted with desmoplastic myxoid fibrous connective tissue and the presence of neoplastic emboli.

Penis:

Multiple cauliflower-like structures were composed of papillary connective tissue stroma lined by thickened, irregularly proliferating squamous epithelium with marked hyperkeratosis and parakeratosis. In the ulcerative areas, the squamous epithelium was variably hyperplastic with broad interconnecting sheets and cords, and downward extending into dermis. In some regions, the squamous epithelium displayed marked cellular atypia, characterized not only by cellular and nuclear pleomorphism, but also binucleated cells and the presence of typical and atypical mitoses. Mitotic figures were frequently observed. There were also scattered individualized and aggregated neoplastic squamous epithelial cells in the dermis. Multifocally, the junctions between squamous epithelium and dermis became blurring, and the squamous epithelial cells became more atypical and individualized, suggestive of malignant transformation.

Morphological diagnosis:

1. Carcinoma, origin undetermined, with involvement of the lung, lymph nodes, ureter, omentum, and peritoneum

2. Squamous cell carcinoma, with papilloma, inverted papilloma, and balanitis, penis
3. Enteritis, necrotizing, segmental to diffuse, sever, acute, with suspicious eosinophilic intracytoplasmic inclusion body, small intestine

Differential Diagnosis:

Malignant mesothelioma with squamous differentiation

Laboratory Examination:

Immunohistochemical (IHC) staining:

Under IHC stainings, the neoplastic cells were positive for Cytokeratin (CK) 5/6, P63, and pan-CK, but negative for CK7, CK20, and vimentin.

Polymerase chain reaction (PCR):

Detection of the equine papillomavirus type 2 from formalin-fixed, paraffin-embedded specimens of the penile tissues was attempted by PCR according to the previously published method. The result showed negative.

Final Diagnosis:

Metastatic squamous cell carcinoma (SCC), most likely originating form penile SCC, with involvement of the lung, lymph nodes, ureter, omentum, and peritoneum

Discussion:

In the present case, the penile papilloma and inverted papilloma with malignant transformation are noted, and thus the diagnosis of penile squamous cell carcinoma (PSCC) can be made. Several neoplastic emboli and metastatic lesions are found in the ureter, and this finding also implies the metastatic potential of the PSCC. Therefore, it's speculated the PSCC can invade the lymphatic/blood vessels to cause distinct metastasis and peritoneal carcinomatosis. The major differential diagnosis is malignant mesothelioma with squamous differentiation due to the involvement of omentum and peritoneum, although it's an uncommon finding for mesothelioma to metastasis via lymphatic/blood vessels. In order to identify the histogenesis of the present tumor growth, several immunohistochemical (IHC) stains were performed, and the results support the diagnosis of SCC.

SCC constitutes approximately 18% of all equine cutaneous neoplasms, and 45% of the equine SCC cases are reported to involve the male external genitalia. Equine PSCC commonly recurs after treatment and may metastasize to reginal lymph node and/or internal organs, and thus the long-term prognosis is poor. Distant metastasis of PSCC is rare and occurring most often in the lungs or liver. The peritoneal metastasis (peritoneal carcinomatosis) caused by PSCC is an extremely rare condition, and only one human case has been reported.

Although ultraviolet (UV) light is an accepted cause of SCC in sun-exposed skin in some species, UV overexposure may be a less likely cause of equine PSCC due to the ventral location of the male genitalia. Although equine PSCC have been associated with chronic irritation, the role of these

factors in neoplastic transformation remains unclear. In humans, approximately half of PSCC are associated with papillomavirus (PV) infection. For certain histologic subtypes, PV DNA can be identified in almost 100% of PSCC cases. A similar phenomenon has also been found in equine PSCC. At present, several studies of equine PSCC suggest the papillomavirus is associated with the development of SCC, and papilloma/balanoposthitis can be the promoters of SCC formation. In the present case, the polymerase chain reaction (PCR) for detecting equine papillomavirus type 2 was performed, but the result showed negative. On the other hand, the lesions found in the small intestine can be associated with coronavirus infection due to the lesions type and the presence of eosinophilic intracytoplasmic inclusion body-like substance in the cryptal epithelial cells. Further investigation for both equine papillomavirus and coronavirus by using PCR, IHC staining and in-situ hybridization is proposed.

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CASE HISTORY

Signalment: A female Cacatuini of unknown age was submitted from a bird park to the ADDC at NCHU.

Clinical History:

The female Cacatuini of unknown age came from a bird park. The emaciated bird/Cacatuini was found refluxing. Undigested food also appeared in the feces. Symptoms had persisted for several months before the Cacatuini died. After it was discovered by the owner, the body was submitted to the ADDC at NCHU for pathological diagnosis.

Gross Findings:

The Cacatuini weighed 0.49 kg and was severely emaciated. The muscle on both sides of the keel was concaved. In the esophagus, there was a thin white substance attached to the mucosa's surface. The proventriculus expanded and the wall was thin remarkable. The gizzard and proventriculus ratio was 1: 3. After stripping the koilin membrane, partial bleeding lesions was visible on the mucosa. Undigested food was found in the intestine. Most of the adipose tissue was depleted out.

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Histopathological Findings:

There is a perivascular cuffing of amount lymphocytes infiltration in the cerebrum and cerebellum. A large number of lymphocytic infiltrations can be seen in the ganglion around the crop. The mucosa of the crop became thin and keratosis.

The wall of proventriculus became thin. Remarkable atrophied smooth muscle layers and a few lymphocytes infiltration could be seen. The smooth muscle of the pancreas and intestine was atrophy. The liver showed fatty change.

Differential diagnosis:

1. Vit B deficiency
2. Candidiasis
3. Paramyxovirosis
4. Budgerigar fledgling disease (BFD)
5. Psittacine beak and feather disease (PBFD)
6. Proventricular dilatation disease (PDD)

Diagnosis:

Proventricular dilatation disease (PDD)

Discussion:

Proventricular dilatation disease (PDD) is one of the most important infectious diseases facing aviculture and the avian practitioners today. This disease is also known as Proventricular Dilatation Syndrome (PDS), Macaw Wasting Disease and neuropathic gastric dilatation. PDD was caused by bornavirus. Its size was 80nm, and it had an envelope. The virus is highly neurotropic and infects the central, peripheral, and autonomic nervous systems. It caused proventricular functional disorder and central nervous system disorders. Since sick birds could not effectively digest food and lacked nutrition, it leaded to a slim chest and protruding keel, and became a wasting disease.

Sick birds have poor prognosis and infection was often mixed with other diseases, such as PBFD and BFD, etc. Thus, the treatment can be giving soft food which birds digest easily, a non-stress environment, in addition to administering antibiotics to prevent secondary bacterial infections. According to PDD and Macaw Wasting Syndrome on Wikipedia website**,** the clinical presentation of this disease varies with the individual as well as in severity of those symptoms. Often the symptoms include a gastrointestinal component, but many times birds suffering from this disease will present with neurologic signs as well, or in lieu of digestive anomalies.

Gastrointestinal signs may include: Regurgitation, crop impaction, poor appetite, weight loss, or passage of undigested food in the feces. Neurologic symptoms may include: Weakness, ataxia, paresis, proprioceptive deficits, head tremors, and rarely seizures. Muscle wasting and a generalized poor body condition is usually found as well. The virus can also affect the Purkinje cells of the heart, the adrenal medulla, the brain, and the spinal cord.

On necropsy the affected organs appear dilated and may include the crop, proventriculus, ventriculus, and small intestine. On histopathological examination the tissues will contain a lymphoplasmacytic infiltration in the peripheral and central nervous tissue. The causative virus is believed to commonly affect the myenteric plexuses which will also lead to the presentation of atrophied smooth muscle within the affected gastrointestinal organs. It is this atrophy and loss of tone in the organs that causes the dilation and subsequent gastrointestinal symptoms which are commonly the first sign of disease for the owners.

In July 2008, a team of researchers at the University of California, San Francisco was able to identify the virus that may cause PDD, which they have named Avian Bornavirus (ABV). A member of the bornavirus family, Avian Bornavirus was isolated in 71 percent of samples from infected birds, but in none of the healthy birds.

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CASE HISTORY

Signalment: A 33 year-old female without any other systemic disease

Clinical History:

This 33 year-old female with the reproductive history of G1P1A0 denied any other systemic disease before. A papillary lesion in her vulva suspect condyloma was found incidentally during vaginal delivery, and topical cream was prescribed. Following pap smear exam showed atypical squamous cells, so colposcopy and HPV test were arranged. Positive HPV test and acetowhite finding at 11-12 and 6-7 o'clock direction in colposcopy are noted. Cervical biopsy showed high-grade squamous intraepithelial neoplasia. So uterine cervical LEEP (loop electrosurgical excision procedure) and vulvar lesion excision were done on May 2014.

Gross Findings:

The specimen submitted stated as "cervix" consists of 1 tissue fragment, measuring 2.3× 2.0× 1.6 com in size. The specimen of vulvar papillary lesion consists of 1 tissue fragment, measuring 0.5× 0.3× 0.2 cm in size.

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CASE RESULT

Histopathologic Findings:

The section of vulva shows papillomatosis, parakeratosis, acanthosis, koilocytosis and inflammatory infiltration. The sections of cervix show high-grade squamous intraepithelial lesion with the feature of hyperplasic squamous epithelium containing moderate dysplasia and koilocytotic atypia.

Diagnosis:

1. Uterus, cervix, high grade squamous intraepithelial lesion(SIL)
2. Vulva, condyloma acuminatum

Discussion:

Human Papillomavirus (HPVs) are small non-enveloped double-stranded DNA viruses, which belong to the Papillomaviridae family. According to the research data of International HPV Reference Center, more than two hundred Human Papillomavirus (HPV) types have been established, belong to 49 species in five genera. New HPV types are continuously found nowadays[(1)].

HPVs play a critical role in wide range of disease, including benign lesions to malignant tumors. They could be divided into two groups, the high-risk group and the low-risk group, according to their relativity to invasive cervical cancer. The most common HPVs type in the former are type 16 18, 31, and 33; while, type 6 and 11 consist of the majority disease resulted from non-oncogenic group. The oncogenic potential of HPV may be explained by the virus protein E6 and E7. Viral protein E6 and E7 promote malignant transformation by causing p53 degradation and retinoblastoma protein (Rb) inhibition respectively. These two protein from high-risk HPV types has a higher affinity to their targets than do proteins from low-risk group. In addition, in contrast to episomal form HPV genome in most benign lesions, HPV genome integrated into the host genome and lead to host genomic instability in the malignant condition[(2)].

Condyloma acuminata, also called anogenital warts or genital warts, is one of the most common sexually transmitted disease in the United State. Most anogenital warts are asymptomatic, but some patients may have pruritus, bleeding, burning sensation, pain, or vaginal discharge. This disease most commonly caused by HPV6 of the Alpha-papillomavirus genus, and squamous cell carcinoma of the anogenital area can exist concurrently. A Large French National Study in 2008 revealed that type 6, 11, and 16 are the most frequently encountered HPV genotypes in condyloma[(3)]. Another study published in 2015 discussed the possibility of human papillomavirus-negative condylomata, and their conclusion confirmed the relationship of HPVs and condyloma by introducing a new and sensitive virus detection method[(4)].

Up to date, many HPVs related cancers have been found, such as anal, cervical, vaginal, vulvar,

oropharyngeal, and penile cancers. The U.S. Department of Health and Human Services presumed most of them may caused by HPVs. A series of paper investigating the prevalence and attribution of Human Papillomavirus types among many different cancers and precancerous lesions have been published worldwide. Their conclusions pointed out the existence of high-risk HPV types in the cancers; while low-risk HPV types may also play a role in the precancerous lesions. Furthermore, co-infection of different types of HPVs may exist in the same patient, which could explain why some patients has both benign and malignant disease[5-7]. Interestingly, HPVs typing may not only related to the etiology of cancer but also influence the prognosis[7].

Clinically, we could use Ki-67 immunohistochemical stain to confirm the diagnosis in ambiguous cases by the actively dividing cells in the upper portion of the epithelium. Markedly increased levels of p16 caused by E7 protein is also used to identify high-risk HPV infection. Recent studies also revealed the favorable prognosis in p16-positive oropharyngeal squamous cell carcinoma[8].

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Case Number: 460
Slide No.: CO15-824A
Slide view: http://www.ivp.nchu.edu.tw/slide_view.php?id=1015

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CASE HISTORY

Signalment: 2-year and 7-month-old intact female African hedgehog (*Atelerix albiventris*)

Clinical History:

The hedgehog presented to Veterinary Medical Teaching Hospital of National Chung Hsing University with the chief complaint of a painless, growing mass around right neck, which had been noticed for few weeks. Clinical examination revealed another intra-abdominal mass. Surgical excision of the mass and exploratory laparotomy was performed. A uterine mass was identified during laparotomy, and ovariohysterectomy was performed to remove the tumor.

Gross Findings:

The uterine tumor measured 4.5 × 3.0 × 3.0 cm. The botryoid mass distributed in the right uterine horn with meat-like texture. No gross lesion was found in the resected left uterine horn. The neck mass measured 2.5 × 2.1 × 1.0 cm. It was well encapsulated with yellow-white homogeneous texture on the surface of mass.

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CASE RESULT

Histopathologic Findings:

Right uterine horn:

The tumor is unencapsulated, highly cellular and invasive. Both endometrium and myometrium are infiltrated by neoplastic cells. Areas of necrosis, edema and hemorrhage are profound. The neoplasm consists of spindle to polygonal cells which are arranged in whirling or intersecting pattern, with strong angiogenesis. Cell boundaries are not clear. Vacuolar, round, oval to cigar-like shaped nuclei, and one to multiple nucleoli characterize the neoplastic cells.

Left uterine horn:

Multiple cystic endometrial glands are lined by flattened epithelium.

Neck mass:

The mass is well-encapsulated. Well differentiated lipocytes and sheets of undifferentiated polygonal neoplastic cells infiltrates between glandular tissues. The neoplastic cells are characterized by vacuolar nuclei, prominent and one to multiple nucleoli, anisokaryosis, and one to multiple cytoplasmic fat droplets. Focal necrosis with mild lymphocytes and neutrophils infiltration was also noticed.

Histochemical and Immunohistochemistry stains:

Uterine horn:

Masson's trichrome stain reveals normal myometrium in red but fails in neoplastic cells. The uterine mass is positive for ER and CD10, but negative for SMA, desmin, inhibin and CD117.

Neck mass:

The neck mass is positive for the ER and MDM2 antibodies.

Differential Diagnosis:

Uterine neoplasm: adenosarcoma, fibrosarcoma, leiomyosarcoma, endometrial stromal sarcoma

Neck mass: lipid-rich carcinoma, liposarcoma

Diagnosis:

Subcutaneous liposarcoma and uterine endometrial stromal sarcoma in an African hedgehog

Discussion:

Lipoma or liposarcoma in hedgehog is rare. Though liposarcoma is malignant mesenchymal tumor, the tumors are locally invasive and probability of distant or regional metastasis is low. A wide excision is better than marginal excision. Distinguishing atypical lipomatous tumor-well-differentiated liposarcoma (WDL) from benign adipocytic neoplasms can be difficult. WDL characteristically harbor amplifications of the MDM2 and CDK4 cell cycle oncogenes with

protein overexpression and can also overexpress the cell cycle regulator p16. According to Thway, sixty-eight percent of WDLs expressed all 3 antigens, whereas 100% of WDLs expressed at least 2 antigens. Grade plays an important role in tumors of the upper limb, chest wall and flank where wide excisions with tumor-free margins can be taken, but may have a lesser role when tumors involve the head and neck, retroperitoneum or distal limbs, where specific anatomical restraints at these sites prevent wide curative-intent excision. In these locations the amount of tumor excised or excisable may prove to be more important than grade.

The common variants of uterine sarcoma are carcinosarcoma, endometrial stromal sarcoma (ESS) and leiomyosarcoma. According to Igor, the most commonly reported malignant tumor of the uterus and ovary in African hedgehog is adenosarcoma. The prefix ‘‘adeno’’ apposed to the name of a mesenchymal neoplasm indicates the presence of a non-neoplastic epithelial component within a mesenchymal neoplasm. Typical clinical signs in affected female hedgehogs, in order of prevalence, are vaginal bleeding, hematuria, and weight loss.

Endometrial stromal sarcoma is the second most commonly diagnosed uterine tumor in African hedgehog. The endometrial stromal component consists of small, ovoid, and spindle-shaped cells with scanty cytoplasm and the neoplastic cells are arranged in a diffuse pattern accompanied by prominent vasculature, mostly arterioles. The neoplastic endometrial stromal cells show moderate nuclear pleomorphism and few mitotic figures. Uterine leiomyosarcomas are rare but have been described in hedgehogs. These tumors are comprised of haphazardly arranged bundles of neoplastic spindle cells with single, anisokaryotic, ovoid, vesicular nuclei. In most situations, it is not difficult to separate ESS from uterine smooth muscle tumors by routine histologic examination. However, the challenge is how to differentiate endometrial stromal tumor, highly cellular leiomyoma, and leiomyosarcoma.

Immunohistochemical studies may help in the diagnosis of ESSs and smooth muscle tumors. Although CD10 is expressed uniformly in endometrial stroma, it is a non-specific marker and can be seen in a variety of neoplasms including, but not limited to, smooth muscle tumors. Thus, a panel of immunostains, including CD10 and smooth muscle markers such as desmin, h-caldesmon and SMA should be incorporated together. The immunohistochemical findings should be correlated with the morphological findings.

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中華民國比較病理學會章程

第一章　總則

第一條　本會定名為中華民國比較病理學會，英文名稱為 Chinese Society of Comparative Pathology (CSCP) (以下簡稱本會)。

第二條　本會依內政部人民團體法設立，為非營利目的之社會團體，以結合人類醫學與動物醫學資源，提倡比較病理學之研究與發展，交換研究教學心得，聯絡會員友誼及促進國際間比較醫學之交流為宗旨。

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

第四條　本會之任務如左：

一、　提倡比較病理學之研究與發展。

二、　舉辦學術演講會、研討會及相關訓練課程。

三、　建立國內比較醫學相關資料庫。

四、　發行比較病理學相關刊物。

五、　促進國內、外比較醫學之交流。

六、　其他有關比較病埋學術發展之事項。

第五條　本會之主管機關為內政部。目的事業主管機關依章程所訂之宗旨與任務，主要為行政院衛生署及農業委員會，其目的事業應受各該事業主管機關之指導與監督。

第二章　會員

第六條　本會會員申請資格如下：

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

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

三、　贊助會員：贊助本會工作之團體或個人。

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

前項一、二、三項會員申請時應填具入會申請書，經一般會員二人之推薦，經理事會通過，並繳納會費。學生會員身份改變成一般會員時，得再補繳一般會員入會費之差額後，即成為一般會員，榮譽會員免繳入會費與常年會費。

第七條　一般會員有表決權、選舉權、被選舉與罷免權，每一會員為一權。贊助會員、學生會員與榮譽會員無前項權利。

第八條　　會員有遵守本會章程、決議及繳納會費之義務。

第九條　　會員有違反法令、章程或不遵守會員大會決議時，得經理事會決議，予以警告或停權處分，其危害團體情節重大者，得經會員大會決議予以除名。

第十條　　會員喪失會員資格或經會員大會決議除名者，即為出會。

第十一條　會員得以書面敘明理由向本會聲明退會。但入會費與當年所應繳納的常年會費不得申請退費。

第三章　組織及職員

第十二條　本會以會員大會為最高權力機構。

第十三條　會員大會之職權如下：

一、　訂定與變更章程。

二、　選舉及罷免理事、監事。

三、　議決入會費、常年會費、事業費及會員捐款之方式。

四、　議決年度工作計畫、報告、預算及決算。

五、　議決會員之除名處置。

六、　議決財產之處分。

七、　議決本會之解散。

八、　議決與會員權利義務有關之其他重大事項。

前項第八款重大事項之範圍由理事會訂定之。

第十四條　本會置理事十五人，監事五人，由會員選舉之，分別成立理事會、監事會。

選舉前項理事、監事時，依計票情形得同時選出候補理事五人，候補監事一人，遇理事或監事出缺時，分別依序遞補之。

本屆理事會得提出下屆理事及監事候選人參考名單。

第十五條　理事會之職權如下：

一、　審定會員之資格。

二、　選舉及罷免常務理事及理事長。

三、　議決理事、常務理事及理事長之辭職。

四、　聘免工作人員。

五、　擬訂年度工作計畫、報告、預算及決算。

六、　其他應執行事項。

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

理事長對內綜理監督會議，對外代表本會，並擔任會員大會、理事會主席。

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

理事長或常務理事出缺時，應於一個月內補選之。

第十七條　監事會之職權如左：

一、監察理事會工作之執行。

二、審核年度決算。
三、選舉及罷免常務監事。
四、議決監事及常務監事之辭職。
五、其他應監察事項。

第十八條　監事會置常務監事一人，由監事互選之，監察日常會務，並擔任監事會主席。
常務監事因事不能執行職務時，應指定監事一人代理之，未指定或不能指定時，由監事互推一人代理之。監事會主席（常務監事）出缺時，應於一個月內補選之。

第十九條　理事、監事均為無給職，任期三年，連選得連任。理事長之連任以一次為限。

第二十條　理事、監事有下列情事之一者，應即解任：
一、喪失會員資格。
二、因故辭職經理事會或監事會決議通過者。
三、被罷免或撤免者。
四、受停權處分期間逾任期二分之一者。

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

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

第二十三條　本會得由理事會聘請無給顧問若干人，其聘期與理事、監事之任期同。

第四章　會議

第二十四條　會員大會分定期會議與臨時會議兩種，由理事長召集，召集時除緊急事故之臨時會議外應於十五日前以書面通知之。定期會議每年召開一次，臨時會議於理事會過半數認為必要，或經會員五分之一以上之請，或監事會半數函請召集時召開之。

第二十五條　會員不能親自出席會員大會時，得以書面委託其他會員代理，每一會員以代理一人為限。

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

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

會議。

前項會議召集時除臨時會議外。應於七日以以書面通知，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：一般會員新台幣伍佰元，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七屆理監事名單簡歷冊									
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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	台灣養豬科學研究所主任 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	234 台北縣永和市環河南路二段 187 號六樓之一	02-33663760	02-23633289	chhsuliu@ntu.edu.tw
理事	江蓉華	男	國立國防醫學院醫學士	國軍花蓮總醫院病理部主任	耕莘醫院組織病理科主任	23148 新北市新店區中正路 362 號	02-22193391 #65239 0921-601501	02-22193506	path_65239@yahoo.com.tw
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	112 台北市北投區行義路 154 巷 31 號 7F	02-28332211 #2120	02-28389306	cclee6666@yahoo.com.tw
理事	阮正雄	男	日本國立岡山大學 大學院醫歯藥總合研究科 博士	台北醫學大學副教授兼細胞學中心主任	輔英科技大學附設醫院	台北市大安區龍門里 7 鄰 和平東路 2 段 32 號 3 樓	0939-665921 02-2362-2656 04-26581919 #4320	02-23622656	masaroan@yahoo.com.tw
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	110 台北市吳興街 250 號	02-27361661 #3131	02-23770054	kevinyhl@tmu.edu.tw
理事	祝志平	男	台大病理研究所	台北醫學院講師	高雄醫學大學附設中和紀念醫院	807 高雄市三民區自由一路 100 號附設醫院	02-27082121 #3526 0953-886806		happffl@yahoo.com.tw
理事	張俊梁	男	國防醫學院醫學科學研究所博士	國防醫學院兼任助理教授	國軍桃園總醫院病理檢驗部主任	325 桃園縣龍潭鄉中興路 168 號	0932-306037 0972-765804	03-4809946	junn9liang@yahoo.com.tw
理事	邱慧英	女	國立台大獸醫學研究所博士	台灣養豬科學研究所	台灣大學分子暨比較病理生物學研究所	10617 台北市大安區羅斯福路四段一號獸醫三館 513 室	0919-533920 02-3366-9899	02-23621965	hic01.chiou@gmail.com
理事	梁鍾鼎	男	國立台灣大學獸醫學研究所博士	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	104 台北市中山區大直北安路 588 巷 30 弄 14 號 3 樓	02-2789-5569	02-27895588	liact@nlac.narl.org.tw
理事	蔡睦宗	男	國立台灣大學獸醫學研究所碩士	屏東縣家畜疾病防治所	屏東生技園區觀賞魚病室	屏東縣屏東市溝美里勝利路 2 號	08-7224109	08-7224432	t0566@ms7.hinet.net
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	40343 臺中市西區三民路一段 199 號	04-22294411 0936-498546	04-24753984	luke_mtlai@yahoo.com.tw
常務監事	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	台灣大學分子暨比較病理生物學研究所教授	10617 台北市大安區羅斯福路四段一號獸醫三館 513 室	0987-836607 02-33663869	02-23621965	crjeng@ntu.edu.tw
監事	高郁茜	女	台北醫學大學醫學系	萬芳醫院醫師 台大醫院住院醫師	萬芳醫院主治醫師	台北市吳興街 250 號台北醫學大學病理科	0970-746-346 02-2736-1661 #3146	02-23770054	capri881@yahoo.com.tw
監事	蔡懷德	男	中國醫藥大學醫學系	台大家醫部住院醫師	衛生署疾病管制局防疫醫師	台北市承德路三段 191 巷 15 號 2 樓	0963-457705	06-2906714	walwalter@gmail.com

中華民國比較病理學會

104 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七屆第二次會員大會訂於 104 年 3 月 15 日於中 興大學獸醫學院。

2. 第七屆理監事會議

i. 第七屆第四次理監事會議於 104 年 3 月 15 日於中興大學獸醫學院召開。

ii. 第七屆第五次理監事會議於 104 年 8 月 16 日於台北市立動物園召開。

iii. 第七屆第六次理監事會議於 104 年 12 月 20 日於衛生福利部台中醫院召開。

二、舉辦學術研討會

1. 第 63 次比較病理研討會於 104 年 3 月 15 日於中興大學獸醫學院召開。
2. 第 64 次比較病理研討會於 104 年 8 月 16 日於台北市立動物園召開。
3. 第 65 次比較病理研討會於 104 年 12 月 20 日於衛生福利部台中醫院召開。

三、舉辦學術演講

1. 第 63 次比較病理研討會邀請朱旆億醫師演講，講題為 Comparative Pathology of Digestive Tumors and Diseases Between Human and Animals。
2. 第 64 次比較病理研討會邀請涂央昌研究員演講，講題為 Molecular Epidemiological and Pathological Studies of Rabies in Ferret Badgers in Taiwan。
3. 第 65 次比較病理研討會邀請羅一鈞醫師演講，講題為 Human coronavirus infections — focus on the Middle East respiratory syndrome coronavirus (MERS-CoV)，及張惠雯助理教授演講，講題為冠狀病毒引起動物相關疾病之探討。

四、舉辦學術病理切片病例討論

1. 於第 63 次比較病理研討會共有 7 個單位提供 8 個病例會員討論。
2. 於第 64 次比較病理研討會共有 6 個單位提供 7 個病例供會員討論。
3. 於第 65 次比較病理研討會共有 6 個單位提供 6 個病例供會員討論。

五、架設學會網站

提供 63、64 及 65 次比較病理研討會病理切片及活動花絮照片，供學會於網站瀏覽。

學會網址： http://www.ivp.nchu.edu.tw/cscp/

中華民國比較病理學會

收支決算表

中華民國 104 年 1 月 1 日至 104 年 12 月 31 日　　單位：新臺幣(元)

科目				決算數	預算數	決算與預算比較數		說明
款	項	目	名稱			增加	減少	
1			本會經費收入	**70,332**	**95,561**		15,210	
	1		入會費	7,000	6,000		1,000	新增一般會員 6 人，學生 10 人
	2		常年會費	20,500	22,000		1,500	一般會員 21 人，學生 4 人
	3		贊助會費	40,460	60,000		19,360	龐德、友聯、賽默飛捐款
	4		利息收入	72	61	11		
	5		其他收入	2,300	7,500		5,200	賣出犬疾病診斷$800 及鄔奇軒,蔡昆平,于智仁研討會費用$1500
2			本會經費支出	**44,920**	**95,561**		**50,641**	
	1		人事費	**7,400**	**18,000**		**10,600**	
		1	兼職人員車馬費	1,400	12,000	200		
		2	其它人事費	6,000	6,000		0	專題演講者車馬費(共 3 位)
	2		辦公費	**11,120**	**24,061**		**12,941**	
		1	印刷費	10,850	16,861		6,011	印刷第 63,64 及 65 次會議手冊
		2	旅運費	0	4,200		4,200	
		3	郵電費	270	3,000		2,730	
		4	公共關係費	0	0			
	3		業務費	21,730	**37,000**		**15,270**	
		1	會議費	21,730	37,000		15,270	
	4		雜費支出	**4,670**	**16,500**		**11,830**	結算 103 年度切片掃描費用
	5		提撥基金	0	0			
3			本期餘絀	25,412	0			

理事長：　　常務監事：　　秘書長：　　會計：

中華民國比較病理學會

現金出納表

中華民國 104 年 1 月 1 日至 104 年 12 月 31 日止

單位：新臺幣(元)

收入		支出	
科目名稱	金額	科目名稱	金額
上期結存	38,041	本期支出	44,920
本期收入	70,332	本期結存	63,453
合計	108,373	合計	108,373

理事長: 常務監事: 祕書長: 會計:

中華民國比較病理學會

資產負債表

中華民國 104 年 12 月 31 日

單位：新臺幣(元)

資	產	負債 基金 暨 餘絀	
歷年歲末累計結餘	38,041	合作金庫活存	53,748
提撥準備基金	0		
104 年度餘絀	25,412	現金	9,705
合 計	63,453	合 計	63,453

理事長: 廖俊旺　常務監事: 鄭謙仁　秘書長: 朱添德　會計: 吳昭慧

中華民國比較病理學會

基金收支表

中華民國 104 年 1 月 1 日至 104 年 12 月 31 日止

單位：新臺幣(元)

收入		支出	
科目名稱	金額	科目名稱	金額
準備基金		準備基金	
歷年累存	10,400		0
本年度提撥	0		
		結餘	10,400

理事長：廖俊旺　常務監事：謝仁　祕書長：[illegible]德　會計：吳昭慧

中華民國比較病理學會

105 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召募，擴大會員陣容，

2. 整理會藉與清查會費

(1)更新整理會藉資料，並製作會員通訊錄

(2)清查會員繳費狀況，進行催繳，缺繳三年以上徹底實行停權

3. 召開會議

(1)召開會員大會一次

(2)辦理二至四次理監事聯席會議

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

中華民國比較病理學會

收支預算表

中華民國 105 年 1 月 1 日至 105 年 12 月 31 日　　單位：新臺幣(元)

科目				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
款	項	目	名稱			增加	減少	
1			本會經費收入	**72,080**	**95,561**		23,481	
	1		入會費	6,000	6,000			學生入會 100 元;一般會員 1000 元
	2		常年會費	22,000	22,000			學生會員 100 元;一般會員 1000 元
	3		贊助會費	40,000	60,000	20,000		贊助廠商 5000 元
	4		利息收入	80	61	11		
	5		其他收入	4,000	7,500		3,500	
2			本會經費支出	72,080	95,561		23,481	
	1		人事費	**10,200**	**18,000**		**7,800**	
		1	兼職人員車馬費	4,200	12,000		7,800	
		2	其他人事費	6,000	6,000			講師費 2000 元
	2		辦公費	**22,080**	**24,061**		**1,981**	
		1	印刷費	20,080	16,861	3,219		會議手冊印製
		2	旅運費	0	4,200		4,200	
		3	郵電費	1,000	3,000		2,000	病例切片郵寄
		4	公共關係費	0	0			
	3		業務費	**25,800**	**37,000**		11.200	
		1	會議費	25,800	37,000		11,200	
	4		雜費支出	**14,000**	**16,500**		2,500	
	5		提撥基金	0	0			如有盈餘，得依規定提列 5%以上
3			本期餘絀	**0**	**0**			

理事長：　　常務監事　　秘書長：　　會計：

數位組織切片資料庫

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

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

1. Please make sure that your web browser (e.g. Internet Explorer, Firefox or Safari) is equipped with "flash player." If not, it can be added from http://www.adobe.com/products/flashplayer/ for free.

2. Please go to the Chinese Society of Comparative Pathology web site at http://www.ivp.nchu.edu.tw/cscp/

3.Choose the slide images (e.g. 63rd CSCP)

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

比較病理研討會病例分類一覽表

中華民國比較病理學會
第一次至第六十五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	Ependymoblastoma	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
腫瘤	72.	9	Reticulum cell sarcoma	Mouse	國家實驗動物繁殖及研究中心
	73.	9	Hepatocellular carcinoma	Human	新光吳火獅紀念醫院
	74.	9	Hepatocellular carcinoma induced by aflatoxin B1	Wistar rats	台灣省農業藥物毒物試驗所
	81.	10	Angiomyolipoma	Human	羅東博愛醫院
	82.	10	Inverted papilloma of prostatic urethra	Human	省立新竹醫院
	84.	10	Nephrogenic adenoma	Human	國泰醫院

腫瘤	86.	10	Multiple myeloma with systemic amyloidosis	Human	佛教慈濟綜合醫院
	87.	10	Squamous cell carcinoma of renal pelvis and calyces with extension to the ureter	Human	台北病理中心
	88.	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, palillary carcinoma, metaststic	Human	羅東聖母醫院
	95.	11	Transmissible venereal tumor	Dog	中興大學獸醫學系
	96.	11	Malignant lymphoma, large cell type, diffuse, B-cell phenotype	Human	彰化基督教醫院
	97.	11	Carcinosarcomas	Tiger	台灣養豬科學研究所
	98.	11	Mucinous carcinoma with intraductal carcinoma	Human	省立豐原醫院
	99.	11	Mammary gland adenocarcinoma, type B, with pulmonary metastasis, BALB/cBYJ mouse	Mouse	國家實驗動物繁殖及研究中心
	100.	11	Malignant fibrous histiocytoma and paraffinoma	Human	中國醫藥學院
	102.	11	Pleomorphic adenoma (benign mixed tumor)	Human	佛教慈濟綜合醫院
	103.	13	Atypical central neurocytoma	Human	新光吳火獅紀念醫院
	104.	13	Cardiac schwannoma	SD rat	國家實驗動物繁殖及研究中心
	109.	13	Desmoplastic infantile ganglioglioma	Human	高雄醫學院
	107.	13	1.Primary cerebral malignant lymphoma 2.Acquired immune deficiency syndrome	Human	台北市立仁愛醫院
	111.	13	Schwannoma	Human	三軍總醫院
	114.	13	Osteosarcoma	Dog	美國紐約動物醫學中心
	115.	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
	116.	14	Krukenberg’s Tumor	Human	台北病理中心
	117.	14	Primary insular carcinoid tumor arising from cystic teratoma of ovary.	Human	花蓮慈濟綜合醫院
	119.	14	Polypoid adenomyoma	Human	大甲李綜合醫院
	120.	14	Gonadal stromal tumor	Human	耕莘醫院
	122.	14	Gestational choriocarcinoma	Human	彰化基督教醫院
	123.	14	Ovarian granulosa cell tumor	Horse	中興大學獸醫學系
	129.	15	Kaposi’s sarcoma	Human	華濟醫院
	131.	15	Basal cell carcinoma (BCC)	Human	羅東聖母醫院
	132.	15	Transmissible venereal tumor	Dog	臺灣大學獸醫學系
	137	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

腫瘤	150	18	Desmoplastic small round cell tumor (DSRCT)	Human	華濟醫院
	152	18	Hepatocellular carcinoma	Human	羅東聖母醫院
	158	20	Hemangiopericytoma	Human	羅東聖母醫院
	160	20	Cardiac fibroma	Human	高雄醫學大學 病理學科
	166	21	Nephroblastoma	Rabbit	紐約動物醫學中心
	168	21	Nephroblastoma	Pig	台灣動物科技研究所
	169	21	Nephroblastoma with rhabdomyoblastic differentiation	Human	高雄醫學大學病理科
	172	21	Spindle cell sarcoma	Human	羅東聖母醫院
	174	21	Juxtaglomerular cell tumor	Human	新光醫院病理檢驗科
	190	27	Angiosarcoma	Human	高雄醫學大學 病理學科
	192	27	Cardiac myxoma	Human	彰化基督教醫院 病理科
	194	27	Kasabach-Merrit syndrome	Human	慈濟醫院病理科
	195	27	Metastatic hepatocellular carcinoma, right atrium	Human	新光醫院病理科
	197	27	Papillary fibroelastoma of aortic valve	Human	新光醫院病理科
	198	27	Extraplacental chorioangioma	Human	耕莘醫院病理科
	208	30	Granulocytic sarcoma (Chloroma) of uterine cervix	Human	高雄醫學大學 病理學科
	210	30	Primary non-Hodgkin’s lymphoma of bone, diffuse large B cell, right humerus	Human	彰化基督教醫院 病理科
	213	30	Lymphoma, multi-centric type	Dog	中興大學獸醫系
	214	30	CD30 (Ki-1)-postitive 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
	218	31	Nasal type NK/T cell lymphoma	Human	高雄醫學大學病理科
	222	31	Acquired immunodeficiency syndrome (AIDS)with disseminated Kaposi’s sarcoma	Human	慈濟醫院病理科
	224	32	Epithelioid sarcoma	Human	彰化基督教醫院 病理科
	226	32	Cutaneous B cell lymphoma , eyelid , bilateral	Human	羅東聖母醫院病理科
	227	32	Extramammary Paget’s disease (EMPD) of the scrotum	Human	萬芳北醫皮膚科 病理科
	228	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
	231	34	Malignant melanoma, metastasis to intra-abdominal cavity	Human	財團法人天主教 耕莘醫院病理科
腫瘤	232	34	Vaccine-associated rhabdomyosarcoma	Cat	台灣大學獸醫學系
	233	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
	235	34	1. Neurofibromatosis, type I 2. Malignant peripheral nerve sheath tumor (MPNST)	Human	花蓮慈濟醫院病理科
	239	35	Glioblastoma multiforme	Human	羅東聖母醫院
	240	35	Pineoblastoma	Wistar rat	綠色四季

腫瘤	241	35	Chordoid meningioma	Human	高醫病理科
	243	35	Infiltrating lobular carcinoma of left breast with meningeal carcinomatosis and brain metastasis	Human	花蓮慈濟醫院病理科
	245	35	Microcystic Meningioma.	Human	耕莘醫院病理科
	247	36	Well-differentiated fetal adenocarcinoma without lymph node metastasis	Human	新光吳火獅紀念醫院
	249	36	Adenocarcinoma of lung.	Human	羅東聖母醫院
	252	36	Renal cell carcinoma	Canine	國立台灣大學獸醫學系獸醫學研究所
	253	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
	256	37	Metastatic adrenal cortical carcinoma	Human	耕莘醫院病理科
	258	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
	262	38	Medullar thyroid carcinoma	Canine	臺灣大學獸醫學系
	264	39	Merkel cell carcinoma	Human	羅東博愛醫院
	266	39	Cholangiocarcinoma	Human	耕莘醫院病理科
	268	39	Sarcomatoid carcinoma of renal pelvis	Human	花蓮慈濟醫院病理科
	269	39	Mammary Carcinoma	Canine	中興大學獸醫學系
	270	39	Metastatic prostatic adenocarcinoma	Human	耕莘醫院病理科
	271	39	Malignant canine peripheral nerve sheath tumors	Canine	臺灣大學獸醫學系
	272	39	Sarcomatoid carcinoma, lung	Human	羅東聖母醫院
	273	40	Vertebra,T12,laminectomy, metastatic adenoid cystic carcinoma	Human	彰化基督教醫院
	274	40	rhabdomyosarcoma	Canine	臺灣大學獸醫學系
	275	40	Fetal rhabdomyosarcoma	SD Rat	中興大學獸醫學系
	276	40	Adenocarcinoma, metastatic, iris, eye	Human	高雄醫學大學
	277	40	Axillary lymph node metastasis from an occult breast cancer	Human	羅東博愛醫院
	278	40	Hepatocellular carcinoma	Human	國軍桃園總醫院
	279	40	Feline diffuse iris melanoma	Faline	中興大學獸醫學系
	280	40	Metastatic malignant melanoma in the brain and inguinal lymph node	Human	花蓮慈濟醫院病理科
	281	41	Tonsil Angiosarcoma	Human	羅東博愛醫院
	282	41	Malignant mixed mullerian tumor	Human	耕莘醫院病理科
	283	41	Renal cell tumor	Rat	中興大學獸醫學系
	284	41	Multiple Myeloma	Human	花蓮慈濟醫院病理科
	285	41	Myopericytoma	Human	新光吳火獅紀念醫院
	287	41	Extramedullary plasmacytoma with amyloidosis	Canine	臺灣大學獸醫學系
	288	42	Metastatic follicular carcinoma	Human	羅東聖母醫院病理科
	289	42	Primitive neuroectodermal tumor (PNET), T-spine.	Human	羅東博愛醫院病理科
	292	42	Hemangioendothelioma of bone	Human	花蓮慈濟醫院病理科
	293	42	Malignant tumor with perivascular epithelioid differentiation, favored malignant PEComa	Human	彰化基督教醫院
	297	43	Mucin-producing cholangiocarcinoma	Human	基隆長庚醫院
	300	43	Cutaneous epitheliotropic lymphoma	Canine	臺灣大學獸醫專業學院
	301	43	Cholangiocarcinoma	Felis Lynx	臺灣大學獸醫專業學院
	302	43	Lymphoma	Canine	臺灣大學獸醫專業學院
	303	43	Solitary fibrous tumor	Human	彰化基督教醫院
	304	43	Multiple sarcoma	Canine	臺灣大學獸醫專業學院

	306	44	Malignant solitary fibrous tumor of pleura	Human	佛教慈濟綜合醫院暨慈濟大學
	307	44	Ectopic thymic carcinoma	Human	彰濱秀傳紀念醫院 病理科
	308	44	Medullary carcinoma of the right lobe of thyroid	Human	彰化基督教醫院病 理科
	309	44	Thyroid carcinosarcoma with cartilage and osteoid formation	Canine	臺灣大學 獸醫專業學院
	312	44	Lymphocytic leukemia/lymphoma	Koala	臺灣大學 獸醫專業學院
	313	45	Neuroendocrine carcinoma of liver	Human	佛教慈濟綜合醫院暨慈濟大學
	314	45	Parachordoma	Human	羅東博愛醫院病理科
腫瘤	315	45	Carcinoma expleomorphic adenoma, submandibular gland	Human	天主教耕莘醫院 病理科
	316	45	Melanoma, tongue	Canine	國立臺灣大學 獸醫專業學院
	317	45	Renal cell carcinoma, papillary type	Canine	國立臺灣大學 獸醫專業學院
	323	46	Metastatic papillary serous cystadenocarcinoma, abdomen	Human	國軍桃園總醫院
	324	46	Malignant gastrointestinal stromal tumor	Human	天主教耕莘醫院
	329	47	Sclerosing stromal tumor	Human	彰化基督教醫院
	330	47	Pheochromocytoma	Human	天主教耕莘醫院
	334	48	Metastatic infiltrating ductal carcinoma, liver	Human	佛教慈濟綜合醫院
	335	48	Adenoid cystic carcinoma, grade II, Rt breast	Human	天主教耕莘醫院
	336	48	Malignant lymphoma, diffuse, large B-cell, right neck	Human	林新醫院
	337	48	Pulmonary carcinoma, multicentric	Dog	國立臺灣大學 獸醫專業學院
	338	48	Malignant melanoma, multiple organs metastasis	Rabbit	國立中興大學 獸醫學院
	340	49	Mucinous-producing urothelial-type adenocarcinoma of prostate	Human	天主教耕莘醫院
	342	49	Plexiform fibromyxoma	Human	彰化基督教醫院
	343	49	Malignant epithelioid trophoblastic tumor	Human	佛教慈濟綜合醫院
	344	49	Epithelioid sarcoma	Human	林新醫院
	346	49	Transmissible venereal tumor	Dog	國立臺灣大學 獸醫專業學院
	347	50	Ewing's sarcoma (PNET/ES tumor)	Human	天主教耕莘醫院 病理科
	348	50	Malignant peripheral nerve sheath tumor, epithelioid type	Human	林新醫院病理科
	349	50	Low grade fibromyxoid sarcoma	Human	高雄醫學大學附設 中和紀念醫院病理科
	351	50	Orbital embryonal rhabdomyosarcoma	Dog	Gifu University, Japan (岐阜大学)
	354	50	Granular cell tumor	Dog	國立臺灣大學 獸醫專業學院
腫瘤	356	50	Malignant neoplasm of unknown origin, cerebrum	Dog	國立臺灣大學 獸醫專業學院
	357	51	Small cell Carcinoma, Urinary bladder	Human	天主教耕莘醫院

	364	51	Perivascular epithelioid cell tumor, in favor of lymphangiomyomatosi	Human	高雄醫學大學附設 中和紀念醫院病理科
	365	52	Angiosarcoma, skin (mastectomy)	Human	天主教耕莘醫院 病理科
	366	52	Rhabdomyoma (Purkinjeoma), heart	Swine	屏東縣家畜疾病 防治所
	368	52	Langerhans cell sarcoma, lung	Human	高雄醫學大學附設 中和紀念醫院病理科
	369	52	Biliary cystadenocarcinoma, liver	Camel	國立屏東科技大學獸醫教學醫院病理科
	371	52	Malignant melanoma, nasal cavity	Human	羅東博愛醫院病理科
	373	53	Malignant giant cell tumor of tendon sheath	Human	天主教耕莘醫院 病理科
	376	53	Malignant mesothelioma of tunica vaginalis	Golden hamster	中興大學獸醫病理生物學研究所
	377	53	Perivascular Epithelioid Cell Tumor (PEComa) of the uterus	Human	彰化基督教醫院 病理部
	378	53	Medullary carcinoma	Human	高雄醫學大學病理部
	389	55	Mantle cell lymphoma involving ascending colon, cecum, ileum, appendix and regional lymph nodes with hemorrhagic necrosis in the colon and leukemic change.	Human	奇美醫院病理部
	390	55	Pulmonary Squamous Cells Carcinoma of a Canine	Dog	國立屏東科技大學 獸醫教學醫院病理科
	391	55	Squamous cell carcinoma, lymphoepithelioma-like type	Human	高醫附設醫院病理科
	393	55	Malignant peripheral nerve sheath tumor (MPNST), subcutis, canine.	Dog	中興大學獸醫學系
	394	55	Desmoplastic malignant melanoma (mimic malignant peripheral nerve sheath tumor)	Human	中山醫學大學醫學系病理學科暨附設醫院病理科
	397	56	Atypical meningioma	Human	奇美醫院病理科
	401	57	Lymph nodes, excision - Hodgkin's lymphoma, mixed cellularity	Human	天主教耕莘醫院
	402	57	1. Leukemia, nonlymphoid, granulocytic, involving bone marrow, spleen, liver, heart, lungs, lymph nodes, kidney, hardian gland, duodenum and pancreas. 2. Pinworm infestation, moderate, large intestines. 3. Fibrosis, focal, myocardium.	Mouse	國家實驗動物中心
腫瘤	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 (2) Hodgkin’s lymphoma, mixed cellularity type. Acrokeratosis paraneoplastica	Human	佛教慈濟綜合醫院暨慈濟大學病理科

410	58	Von Hippel–Lindau disease	Human	奇美醫院病理部
411	58	Multiple neoplasia	Tiger	國立屏東科技大學 獸醫教學醫院病理科
412	58	Hepatocellular carcinoma and multiple myeloma	Human	中山醫學大學醫學系病理學科暨附設醫院病理科
413	59	DEN plus AAF carcinogens induced hepatic tumor in male rats	Rat	中興大學獸醫病理生物學研究所
417	59	Alveolar soft part sarcoma	Human	高雄醫學大學附設 中和紀念醫院病理科
418	60	Seminoma associated with supernumerary testicles	Human	羅東博愛醫院
422	61	Retinoblastoma in a baby girl	Human	彰化基督教醫院
423	61	Colloid goiter in a female Radiated tortoise (*Astrochelys radiata*)	Tortoise	台灣大學獸醫專業學院分子暨比較病理生物學研究所
424	61	Lymphoepithelial carcinoma in a women	Human	羅東博愛醫院
425	61	Histiocytic sarcoma in a SJL/J mouse	mouse	國家實驗動物中心
428	62	Maligant lymphoma, diffuse large B-cell (DLBCL) in a women	Human	國軍桃園總醫院病理檢驗部
429	62	Immune reconstitution inflammatory syndrome (IRIS)-associated Kaposi's sarcoma in a man	Human	花蓮慈濟醫院
430	62	Mammary adenocarcinoma, tubular form in a female feline	Cat	中興大學獸醫病理生物學研究所
433	62	Rhabdomyosarcoma, retroperitoneal cavity in a female mouse	Mouse	國家實驗動物中心
434	62	Malignant pheochromocytoma with pleural metastasis in a man	Human	天主教聖馬爾定醫院病理科
436	63	Primary non-Hodgkins lymphoma of terminal ileum	Human	國軍桃園總醫院病理檢驗部
438	63	Ectopic thyroid gland tumor	Beagle	台灣大學獸醫專業學院分子暨比較病理生物學研究所
440	63	Hepatocellular cell carcinoma Squamous cell carcinoma	Human	天主教聖馬爾定醫院口腔顎面外科
442	64	Large B cell lymphoma in a man	Human	羅東博愛醫院
444	64	Olfactory neuroblastoma in a female cat	Cat	台灣大學獸醫專業學院分子暨比較病理生物學研究所
445	64	Oligodendroglioma in a man	Human	國軍桃園總醫院病理檢驗部
447	64	Ameloblastoma of mandible in a man	Human	天主教聖馬爾定醫院口腔顎面外科
448	65	EBV associated extranodal NK / T-cell lymphoma, nasal type	Human	羅東博愛醫院
451	65	Mouse, subcutaneously mass – exocrine pancreatic adenocarcinoma, AsPC-1 cells, human origin, heterotopical model	Mouse	國家實驗動物中心

	452	65	1. Extranodal NK/T-cell lymphoma, nasal type 2. Regional lymph nodes and omentum are involved.	Human	台中醫院
細菌	6.	1	Tuberculosis	Monkey	臺灣大學獸醫學系
	7.	1	Tuberculosis	Human	省立新竹醫院
	12.	2	H. pylori-induced gastritis	Human	台北病理中心
	13.	2	Pseudomembranous colitis	Human	省立新竹醫院
	26.	3	Swine salmonellosis	Pig	中興大學獸醫學系
	27.	3	Vegetative valvular endocarditis	Pig	台灣養豬科學研究所
	28.	4	Nocardiosis	Human	台灣省立新竹醫院
	29.	4	Nocardiosis	Largemouth bass	屏東縣家畜疾病防治所
	32.	4	Actinomycosis	Human	台灣省立豐原醫院
	33.	4	Tuberculosis	Human	苗栗頭份為恭紀念醫院
	53.	7	Intracavitary aspergilloma and cavitary tuberculosis, lung.	Human	羅東聖母醫院
	54.	7	Fibrocalcified pulmonary TB, left Apex. Mixed actinomycosis and aspergillosis lung infection with abscess DM, NIDDM.	Human	林口長庚紀念醫院
	58.	7	Tuberculous enteritis with perforation	Human	佛教慈濟綜合醫院
	61.	8	Spirochetosis	Goose	國立嘉義農專獸醫科
	63.	8	Proliferative enteritis (*Lawsonia intracellularis* infection)	Porcine	屏東縣家畜疾病防治所
	68.	9	Liver abscess (Klebsillae pneumoniae)	Human	台北醫學院
	77.	10	Xanthogranulomatous inflammation with nephrolithiasis, kidney, right. Ureteral stone, right.	Human	羅東聖母醫院
	79.	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
	108.	13	Listeric encephalitis	Lamb	屏東縣家畜疾病防治所
	113.	13	Tuberculous meningitis	Human	羅東聖母醫院
	134.	16	Swine salmonellosis with meningitis	Swine	中興大學獸醫學系
	135.	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
	140	17	Coliform septicemia of newborn calf	Calf	屏東縣家畜疾病防治所
	161	20	Porcine polyserositis and arthritis（Glasser's disease）	Pig	中興大學獸醫學院
	162	20	Mycotic aneurysm of jejunal artery secondary to infective endocarditis	Human	慈濟醫院病理科
	170	21	Chronic nephritis caused by Leptospira spp	Pig	中興大學獸醫學院
	173	21	Ureteropyelitis and cystitis	Pig	中國化學製藥公司
	254	36	Pulmonary actinomycosis.	Human	耕莘醫院病理科
	259	37	Tuberculous peritonitis	Human	彰化基督教醫院病理科
	260	38	Septicemic salmonellosis	Piglet	屏東科技大學獸醫系
	261	38	Leptospirosis	Human	慈濟醫院病理科
	267	39	Mycobacteriosis	Soft turtles	屏東科技大學獸醫系
	290	42	*Staphylococcus* spp. infection	Formosa Macaque	中興大學獸醫病理學研究所

細菌	291	42	Leptospirosis	Dog	台灣大學獸醫學系
	296	43	Leptospirosis	Human	花蓮慈濟醫院
	305	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, Buirkholderia 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 coccidiodomycosis	Human	彰化基督教醫院
	375	53	Paratuberculosis in Macaca cyclopis	Macaca cyclopis	國立屏東科技大學獸醫學院
	379	53	Bovine Johne's disease (BJD) or paratuberculosis of cattle	Dairy cow	屏東縣家畜疾病防治所
	380	53	NTB, Mycobacterium abscessus	Human	佛教慈濟綜合醫院暨慈濟大學病理科
	382	54	Leptospirosis	Pig	國立屏東科技大學獸醫學院
	384	54	Neisseria Infected Pneumonitis	Cat	中興大學獸醫學系
	385	54	Mycobacteria avian complex dacryocyctitis	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
病毒	21.	3	Newcastle disease	Chicken	台灣大學獸醫學系
	22.	3	Herpesvirus infection	Goldfish	台灣大學獸醫學系
	30.	4	Demyelinating canine distemper encephalitis	Dog	台灣養豬科學研究所
	31.	4	Adenovirus infection	Malayan sun bears	台灣大學獸醫學系
	50.	7	Porcine cytomegalovirus infection	Piglet	台灣省家畜衛生試驗所
	55.	7	Infectious laryngo-tracheitis (Herpesvirus infection)	Broilers	國立屏東技術學院獸醫學系
	69.	9	Pseudorabies (Herpesvirus infection)	Pig	台灣養豬科學研究所
	78.	10	Marek's disease in native chicken	Chicken	屏東縣家畜疾病防治所
	92.	11	Foot- and- mouth disease (FMD)	Pig	屏東縣家畜疾病防治所
	101.	11	Swine pox	Pig	屏東科技大學獸醫學系

	110.	13	Pseduorabies	Piglet	國立屏東科技大學
	112.	13	Avian encephalomyelitis	Chicken	國立中興大學
	128.	15	Contagious pustular dermatitis	Goat	屏東縣&台東縣家畜疾病防治所
	130.	15	Fowl pox and Marek's disease	Chicken	中興大學獸醫學系
	133.	16	Japanese encephalitis	Human	花蓮佛教慈濟綜合醫院
	136	17	Viral encephalitis, polymavirus infection	Lory	美國紐約 動物醫學中心
	138	17	1. Aspergillus spp. encephalitis and myocarditis 2. Demyelinating canine distemper encephalitis	Dog	台灣大學獸醫學系
	153	19	Enterovirus 71 infection	Human	彰化基督教醫院
	154	19	Ebola virus infection	African Green monkey	行政院國家科學委員會實驗動物中心
	155	19	Rabies	Longhorn Steer	台灣大學獸醫學系
	163	20	Parvoviral myocarditis	Goose	屏東科技大學 獸醫學系
	199	28	SARS	Human	台大醫院病理科
	200	28	TGE virus	swine	臺灣動物科技研究所
	201	28	Feline infectious peritonitis(FIP)	Feline	台灣大學獸醫學系
	209	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 ll co-infection	Canine	國家實驗動物 繁殖及研究中心
	223	32	1. Skin, mucocutaneous junction (lip): Cheilitis, subacute, diffuse, sever, with epidermal pustules, ballooning degeneration, proliferation, and eosinophilic intracytoplasmic inclusion bodies, Saanen goat. 2. Haired skin: Dermatitis, proliferative, lymphoplasmacytic, subacute, diffuse, sever, with marked epidermal pustules, ballooning degeneration, acanthosis, hyperkeratosis, and eosinophilic intracytoplasmic inclusion bodies.	Goat	台灣動物科技研究所
	238	35	Hydranencephaly	Cattle	國立屏東科技大學 獸醫學系
	248	36	Porcine Cytomegalovirus (PCMV) infection	Swine	國立屏東科技大學 獸醫學系
	250	36	Porcine respiratory disease complex (PRDC) and polyserositis, caused by co-infection with pseudorabies (PR) virus, porcine circovirus type 2 (PCV 2), porcine reproductive and respiratory syndrome (PRRS) virus and *Salmonella typhimurium*.	Swine	屏東縣家畜疾病防所
病毒	255	37	Vaccine-induced canine distemper	gray foxes	國立台灣大學 獸醫學系
	265	39	Bronchointerstitial pneumonia (PCV II infection)	Swine	台灣大學獸醫學系
	295	42	Feline infectious peritonitis (FIP)	Cat	中興大學獸醫病理所

	362	51	Canine distemper virus infection combined pulmonary dirofilariasis	Dog	國家實驗研究院
	381	54	Polyomavirus infection of urinary tract	Human	羅東博愛醫院
	405	57	Porcine circovirus-associated lymphadenitis	Swine	國立屏東科技大學 獸醫教學醫院病理科
	414	59	Rabies virus infection	Human	佛教慈濟綜合醫院暨慈濟大學病理科
	415	59	Canine distemper virus infection	Dog	台灣大學 獸醫專業學院 分子暨比較病理生物學研究所
	420	60	Respiratory syncytial virus infection	Human	佛教慈濟綜合醫院暨慈濟大學病理科
	421	60	Porcine epidemic diarrhea (PED)	Piglet	國立中興大學獸醫病理生物學研究所
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
	127.	15	Eumycotic mycetoma	Human	花蓮佛教慈濟綜合醫院
	138	17	1. Aspergillus spp. encephalitis and myocarditis 2. Demyelinating canine distemper encephalitis	Dog	台灣大學獸醫學系
	298	43	Systemic Candidiasis	Tortoise	中興大學獸醫學院
黴菌	318	45	Alfatoxicosis in dogs	Canine	國立臺灣大學 獸醫專業學院
	322	46	Allergic fungal sinusitis	Human	羅東博愛醫院
	326	46	Meningoencephalitis, Aspergillus flavus	Cat	國立臺灣大學 獸醫專業學院
	331	47	Histoplasmosis	Human	花蓮慈濟醫院病理科
	332	47	Pulmonary Blastomycosis	Rat	中興大學獸醫學院
	355	50	Encephalitozoonosis	Rabbit	國立中興大學 獸醫學院
	356	50	Eosinophilic granuloma with fungal infection, Skin	Cat	國立臺灣大學 獸醫專業學院
	386	54	Dermatophytic pseudomycetoma	Cat	台灣動物科技研究所
	395	56	Systemic Cryptococcus neoformans infection in a Golden Retriever	Dog	國立台灣大學分子暨比較病理生物學研究所
	441	63	Protothecosis	Dog	國家實驗動物繁殖及研究中心
	449	65	Porcine epidemic diarrhea (PED)	Piglet	國立台灣大學分子暨比較病理生物學研究所
寄	14.	2	Dirofilariasis	Dog	台灣省家畜衛生試驗所

生蟲	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
	106.	13	Parasitic meningoencephalitis, caused by Toxocara canis larvae migration	Dog	臺灣養豬科學研究所
	139	17	Disseminated strongyloidiasis	Human	花蓮佛教慈濟綜合醫院
	141	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
	157	19	Capillaria hepatica, Angiostongylus cantonensis	Norway Rat	行政院農業委員會 農業藥物毒物試驗所
	202	29	Colnorchiasis	Human	高雄醫學院附設醫院
	203	29	Trichuriasis	Human	彰化基督教醫院
寄生蟲	204	29	Psoroptes cuniculi infection (Ear mite)	Rabbit	農業藥物毒物試驗所
	205	29	Pulmonary dirofilariasis	Human	和信治癌中心醫院
	206	29	Capillaries philippinesis	Human	和信治癌中心醫院
	207	29	Adenocarcinoma with schistosomiasis	Human	花蓮佛教慈濟綜合醫院
	286	41	Etiology- consistent with *Spironucleus* (*Hexamita*) *muris*	Rat	國家實驗動物繁殖及研究中心
	327	46	Dermatitis, mange infestation	Serow	中興大學獸醫學院
	328	46	Trichosomoides crassicauda, urinary bladder	Rat	國家實驗動物中心
	362	51	Canine distemper virus infection combined pulmonary dirofilariasis	Dog	國家實驗研究院
	370	52	Suppurative bronchopneumonia (*Bordetellae trematum)* with *Trichosomoides crassicauda* infestation	Rat	國立中興大學 獸醫學院
	416	59	Toxoplasmosis in a finless porpoise	Finless porpoise	國立屏東科技大學獸醫教學醫院病理科
		63	Liver milk spots in pig	Pig	中興大學獸醫病理生物學研究所
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
立克次體	229	32	Necrotizing inflammation due to scrub typhus	Human	佛教慈濟醫院病理科
	251	36	Scrub typhus with diffuse alveolar damage in bilateral lungs.	Human	佛教慈濟醫院病理科
皮膚	216	30	Cytophagic histiocytic panniculitis with terminal hemophagocytic syndrome	Human	佛教慈濟綜合醫院病理科
	359	51	Eosinophilic granuloma with fungal infection, Skin	Cat	國立臺灣大學 獸醫專業學院
	360	51	Septa panniculitis with lymphocytic vasculitis	Human	慈濟綜合醫院暨慈濟大學
其它	9.	2	Perinephric pseudocyst	Cat	台灣大學獸醫學系
	10.	2	Choledochocyst	Human	長庚紀念醫院
	11.	2	Bile duct ligation	Rat	中興大學獸醫學系
	37.	4	Myositis ossificans	Human	台北醫學院
	75.	9	Acute yellow phosphorus intoxication	Rabbits	中興大學獸醫學系
	76.	10	Polycystic kidney bilateral and renal failure	Cat	美國紐約 動物醫學中心
	80.	10	Glomerular sclerosis and hyalinosis, segmental, focal, chronic, moderate Benign hypertension	SHR rat	國防醫學院 & 國家實驗動物繁殖及研究中心
	83.	10	Phagolysosome-overload nephropathy	SD rats	國家實驗動物 繁殖及研究中心 中
	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
	118.	14	Cystic endometrical hyperplasia	Dog	臺灣養豬科學研究所
	121.	14	Cystic subsurface epithelial structure (SES)	Dog	國科會實驗動物中心
	124.	15	Superficial necrolytic dermatitis	Dog	美國紐約 動物醫學中心
	125.	15	Solitary congenital self-healing histiocytosis	Human	羅東博愛醫院
	126.	15	Alopecia areata	Mouse	國家實驗動物 繁殖及研究中心
	142	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
	159	20	Hypertrophic cardiomyopathy	Pig	台灣大學獸醫學系
其它	165	21	Chinese herb nephropathy	Human	三軍總醫院 病理部及腎臟科
	167	21	Acute pancreatitis with rhabdomyolysis	Human	慈濟醫院病理科
	171	21	Malakoplakia	Human	彰化基督教醫院
	183	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 lymphandenitis)	Lymphandenitis	耕莘醫院病理科
	225	32	Calcinosis circumscripta, soft tissue of the right	Dog	台灣大學獸醫所

			thigh, dog		
	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	Eosionphilic granuloma, Right suboccipital epidural mass	Human	羅東博愛醫院病理科
	359	51	Eosinophilic granuloma with fungal infection, Skin	Cat	國立臺灣大學獸醫專業學院
	360	51	Septa panniculitis with lymphocytic vasculitis	Human	慈濟綜合醫院暨慈濟大學
	361	51	Hepatotoxicity of SMA-AgNPs	Mouse	國立中興大學獸醫病理生物學研究所
	363	51	Hypertrophy osteopathy	Cat	國立臺灣大學獸醫專業學院
	372	52	Snake bite suspected, skin and spleen	Monkey (red guenon)	國立臺灣大學獸醫專業學院
	383	54	Langerhans cell histiocytosis	Human	聖馬爾定醫院病理科
其他	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
	Gross	64	Hydronephrosis in a hog pig	Pig	中興大學獸醫病理生物學研究所
	Gross	65	1. Traumatic pericarditis, severe, chronic progressive, diffuse, heart. 2. Hardware disease in a cattle	Cattle	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
國立中興大學 獸醫病理生物學研究所
廖俊旺 教授實驗室
助理 許靜宜
cihsu63@dragon.nchu.edu.tw
04-22840894 轉 122
402 台中市南區興大路 145 號 動物疾病診斷中心 1F102 室

----------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收(許靜宜小姐)。地址：402 台中市南區興大路 145 號 動物疾病診斷中心 1F 102 室、電話：04-22840894#122、傳真 04-22852186。

中華民國比較病理學會入會申請及會員卡

會電腦編號

<table>
<tr><td rowspan="2">姓名</td><td>中文</td><td></td><td rowspan="2">姓別</td><td rowspan="2">□ 男
□ 女</td><td>出生</td><td>民國　年　月　日</td><td rowspan="2">出生地</td><td rowspan="2"></td></tr>
<tr><td>身份証</td><td></td></tr>
<tr><td></td><td>英文</td><td></td><td colspan="4">會員身份：□一般 □學生 □贊助</td></tr>
<tr><td rowspan="4">學歷</td><td colspan="2">(1)</td><td colspan="3">稱謂(圈選) 先生 小姐 醫師 獸醫師 教授 博士</td></tr>
<tr><td colspan="2"></td><td colspan="3">研究員 主任 其他:</td></tr>
<tr><td colspan="2">(2)</td><td rowspan="3">研究興趣</td><td colspan="3">(1)</td></tr>
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永久：　　電話　　傳真：

電子信箱(E-mail)：</td></tr>
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貴會宗旨擬加入為會員嗣後並願遵守一切章共圖發展
此　致
中華民國比較病理學會

申請人　　簽章

介紹人　　簽章

介紹人　　簽章

中華民國　　年　　月　　日</td><td>審核結果</td></tr>
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中華民國比較病理學會會員出席大會委託書

中華民國比較病理學會會員出席大會委託書			
召開會員大會之屆次	委託人	缺席原因	
第七屆第三次			
大會種類			
會員大會	受託人	委託事項	
時間：中華民國一〇五年三月十三日 地點：國立中興大學獸醫學院 動物疾病診斷中心		本委託人今委託上開受託者代表出席本次大會	

此致

大會主席

委託人：　　（簽章）

中華民國一〇五年　　月　　日