

中華民國比較病理學會

Chinese Society of Comparative Pathology



第 44 次比較病理學研討會

彰濱秀傳紀念醫院

彰化縣·臺灣

中華民國 97 年 11 月 1 日

44th Meeting of Comparative Pathology

Chang Bing Show Chwan Memorial Hospital

Changhua, Taiwan

November 1, 2008

中華民國比較病理學會第 44 次比較病理學研討會議程表

Schedule 44th Meeting of the Chinese Society of Comparative Pathology

時間：97 年 11 月 1 日(星期六) 09:00~16:45

地點：彰濱秀傳紀念醫院 3 樓會議廳

地址：彰化縣鹿港鎮鹿工路 6 號

電話：(04) 781-3888

Date: November 1st, 2008 (Sat) 09:00~16:45

Location: C.B. Show Chwan Memorial Hospital

Address: No 6 Lugong Rd. Lukang Zhen,
Changhua County, Taiwan

Telephone: 886-4-7813888

Time	Schedule		Moderator
09:00~09:30	Registration		
09:30~09:45	Welcome Ceremony		
09:45~10:45	Keynote	微創手術在人類及動物醫學上之應用 吳鴻昇 副院長/醫師 Chang Bing Show Chwan Memorial Hospital (彰濱秀傳紀念醫院)	Dr. C.H. Liu (劉振軒 院長)
10:45~11:00	Coffee Break		
11:00~11:30	Case 306	Dr. Y.H. Hsu (許永祥 主任/醫師) Buddhist Tzu-Chi General Hospital (佛教慈濟綜合醫院)	Dr C.H. Liu (劉振軒 院長)
11:30~12:00	Case 307	Dr. M.T. Lai (賴銘淙 主任/醫師) Chang Bing Show Chwan Memorial Hospital (彰濱秀傳紀念醫院)	
12:00~13:30	Lunch (中華民國比較病理學會理監事會議)		
13:30~14:00	Case 308	蘇子誠 醫師 Changhua Christian Hospital, Changhua (彰化基督教醫院)	Dr. M.T. Lai (賴銘淙 主任)
14:00~14:30	Case 309	Dr. C.M. Huang (黃俊銘 獸醫師) School of Veterinary Medicine, National Taiwan University (國立台灣大學獸醫專業學院)	
14:30~15:00	Case 310	Dr. M.T. Tsai (蔡睦宗 獸醫師) Pingtung Livestock Disease Control Center (屏東縣家畜疾病防治所)	
15:00~15:15	Coffee Break		
15:15~15:45	Case 311	Dr. J.W. Liao (廖俊旺 副教授/獸醫師) College of Veterinary Medicine, National Chung Hsing University (國立中興大學獸醫學院)	Dr. Y.H. Hsu (許永祥 主任)
15:45~16:15	Case 312	Dr. C.L. Hsu (徐晴嵐 獸醫師) School of Veterinary Medicine, National Taiwan University (國立台灣大學獸醫專業學院)	
16:15~16:45	Discussion		

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Case Signalment
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Case No.	Presenter	Institution	Slide No.	Signalment
Case 306	Dr. Y.H. Hsu (許永祥 醫師)	Buddhist Tzu-Chi General Hospital (佛教慈濟綜合醫院)	S2006-0636A1	73-year-old man
Case 307	Dr. M.T. Lai (賴銘淙 醫師)	Chang Bing Show Chwan Memorial Hospital (彰濱秀傳紀念醫院)	3206	57 year-old woman
Case 308	蘇子誠 醫師	Changhua Christian Hospital, Changhua (彰化基督教醫院)	08-23310C	19-year-old Vietnam woman
Case 309	Dr. C.M. Huang (黃俊銘 獸醫師)	School of Veterinary Medicine, National Taiwan University (國立台灣大學獸醫專業學院)	NTU07-743D	13-year-old, intact female, Chihuahua dog
Case 310	Dr. M.T. Tsai (蔡睦宗 獸醫師)	Pingtung Livestock Disease Control Center (屏東縣家畜疾病防治所)	Q97-115	2-day-old, black, Taoyuan-Duroc hybrid piglets
Case 311	Dr. J.W. Liao (廖俊旺 獸醫師)	College of Veterinary Medicine, National Chung Hsing University (國立中興大學獸醫學院)	C008-848	16 wk-old, male, Sprague-Dawley rat
Case 312	Dr. C.L. Hsu (徐晴嵐 獸醫師)	School of Veterinary Medicine, National Taiwan University (國立台灣大學獸醫專業學院)	NTU08-676B	11-year-old female koala

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Case Diagnosis
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Case No.	Presenter	Institution	Slide No.	Diagnosis
Case 306	Dr. Y.H. Hsu (許永祥 醫師)	Buddhist Tzu-Chi General Hospital (佛教慈濟綜合醫院)	S2006-0636A1	Malignant solitary fibrous tumor of pleura
Case 307	Dr. M.T. Lai (賴銘宗 醫師)	Chang Bing Show Chwan Memorial Hospital (彰濱秀傳紀念醫院)	3206	Carcinoma with thymus-like element; Ectopic (intrathyroid) thymic carcinoma
Case 308	蘇子誠 醫師	Changhua Christian Hospital, Changhua (彰化基督教醫院)	08-23310C	Medullary carcinoma of right lobe of thyroid with metastasis to cervical lymph node
Case 309	Dr. C.M. Huang (黃俊銘 獸醫師)	School of Veterinary Medicine, National Taiwan University (國立台灣大學獸醫專業學院)	NTU07-743D	Thyroid carcinosarcoma with cartilage and osteoid formation
Case 310	Dr. M.T. Tsai (蔡睦宗 獸醫師)	Pingtung Livestock Disease Control Center (屏東縣家畜疾病防治所)	Q97-115	Thyroid Follicular Hyperplasia (hyperplastic goiter)
Case 311	Dr. J.W. Liao (廖俊旺 獸醫師)	College of Veterinary Medicine, National Chung Hsing University (國立中興大學獸醫學院)	C008-848	Melamine and cyanuric acid contaminated pet food induced nephrotoxicity
Case 312	Dr. C.L. Hsu (徐晴嵐 獸醫師)	School of Veterinary Medicine, National Taiwan University (國立台灣大學獸醫專業學院)	NTU08-676B	Systemic T- lymphocytic leukemia/lymphoma

CURRICULUM VITAE

Name: Hurng-Sheng Wu (吳鴻昇)

Sex: Male(男性)

Birthday: January 20, 1956

Address: Show Chwan Memorial Hospital
Department of Surgery
No. 542, Sec. 1, Chung-Shang Rd.
Changhua, 500, Taiwan
彰化縣 500 彰化市中山路一段 542 號
秀傳紀念醫院外科部

Fax: 886-7-7256166ext1292

Tel: 886-7-7277907

E-mail: hswu@show.org.tw



Marital status: Married

Family: 3 children

Citizenship: The Republic of China

Education:

Provincial Kaohsiung high school

Medical School:

National Defense Medical Center

Master of Public Health, Tulane University, Louisiana, USA

國防醫學院醫學系畢

美國杜蘭大學公共衛生碩士

Present position:

1. Chairman of Taiwan Association of Endocrine Surgeons(2008~)
台灣內視鏡外科醫學會理事長
2. Vice Director of Asian Institute of TeleSurgery (AITS) (2008~)
秀傳亞洲遠距微創手術中心副總監
3. Clinical professor, National Defense Medical Center(2006~)
國防醫學院臨床教授(教育部部訂助理教授)
4. Associate professor, Hung Kuang University. (2006~)
弘光大學兼任助理教授
5. Vice Superintendent of Show Chwan Memorial Hospital (2002~)
秀傳紀念醫院醫療副院長暨外科部主任
6. Chairman of surgical department, Show Chwan Memorial Hospital(2001~2007)
7. Chair, Committee of Medical Education(2002~2007)

Medical Training and Experience:

1. Internship (Aug 1980-Aug 1981): Taipei Veteran General Hospital
(Aug 1981-June 1982): Tri-service General Hospital
2. General surgery residency (1984-1989): Tri-service General H.

3. Attending Visiting general surgery (1989-1990): Tri-service General Hospital
4. Chief of Surgical Department, navy General Hospital
5. Attending Visiting general surgery (1992-2001): Taichung Veteran General Hospital
6. Clinical Research fellow (1997-1998): UCSF/Mount Zion Medical Center

SOCIETIES:

International Association of Endocrine Surgeons
 Surgical Association of Republic of China
 Surgical Society of Gastroenterology, R.O.C.
 International College of Surgeons
 Taiwan Association of Endocrine Surgeons
 Taiwan Association for Endoscopic Surgeons

SPECIALTY :

1. General Surgery
2. Laparoscopic Surgery
3. Endocrine Surgery

PUBLICATIONS : (2003~2008)

1. Bleeding Inverted Meckel's Diverticulum in an Adult Patient: Radionuclide and Radiologic Findings. Hurng-Sheng Wu , Wan-Yu Lin , Shih-Chuan Tsai, Annals of Nuclear Medicine and Sciences , Vol. 12, No. 1, 2008/03, p.55-60
2. Comparison of robot-assisted laparoscopic adrenalectomy with traditional laparoscopic adrenalectomy - 1 year follow-up. Jungle Chi-Hsiang Wu, Hurng-Sheng Wu , Mao-Sheng Lin, Dev-Aur Chou and Min-Ho Huang Surgical Endoscopy , Vol. 22, No. 2, 2008/02, p.463-466 , IF= 2.242
3. Trigger Arrhythmia to Confirm The Position of Totally Implantable Access Ports TIAP. Huan-Fa Hsieh, Jyh-Cherng Yu, Chu-Hsin Chuang, Hurng-Sheng Wu, Yu-Chen Tsai, Chien-Hua Lin, Journal of Surgical Oncology, 95(4), 2007, p.436-437 , IF= 2.384
4. Preliminary Experience With Patch-Enlarged Brachial Artery for Hemodialysis Access. Chiang Jih-Chung ; Teh, Lean-San ; Wu, Hurng-Sheng, ASAIO Journal , 535, 2007, p.576-581 , IF= 1.450
5. Intussusception caused by peutz-jeghers syndrome: a case report and literature review. Chih-Hung Hsu, Yang Ya Hui, Chi-Hong Tasi, Hurng-Sheng Wu, Min-Chang Hung, Yi-Ju Wu, Dev-Aur Chou, Jyh-Chung Yang, Min-Ho Huang Show-Chwan Med J , Vol. 7, No. 3, 2007/10, p. 111-114
6. Management of Emphysematous Cholecystitis. Chu-Hsin Chuang, Huan-Fa Hsieh, Hurng-Sheng Wu, Chi-Hong Chu, Jyh-Cherng Yu, Shih-Yi Chen, Chien-Hua Lin, Chir Gastroenterol , Vol. 23, No. 1, 2007/08 , p.75-78 , IF= 0.110
7. Totally Implantable Access Ports: Approach via Femoral Vein. Wen-Hao Huang, Chu-Hsin Chuang, Jyh-Cherng Yu, Hurng-Sheng Wu, Chien-Hua Lin, Chir Gastroenterol , Vol. 23, No. 1, 2007/08 , p.300-302 , IF= 0.110
8. Pseudoaneurysm of Superior Mesentery Artery Branch After Renal Extracorporeal Shock Wave Lithotripsy: Case Report and Review: Case Report. Yan, Sheng-Lei MD; Wu, Hurng-Sheng MD; Chou, Dev-Aur MD; Kuo, Chien-Long MD; Huang, Hua-Tzu MD; Lee, Yueh-Tsung MD; Huang, Min-Ho MD Journal of Trauma-Injury Infection & Critical Care , 623, 2007/03, p.770-774 , IF= 2.334
9. Pneumatosis intestinalis and hepatic-portal-mesenteric venous gas in intestinal ischemia L. Chien-Hua, Y. Jyh-Cherng, H. Huan-Fa, W. Hurng-Sheng, C. Shih-Yi and C. Chu-Hsin Rev Esp Enferm Dig , 992, 2007/02, p.96-99 , IF= 1.089
10. Gastric glomus tumor: a hypervascular submucosal tumor on power Doppler endosonography. Sheng-Lei Yan, Yung-Hsiang Yeh, Chien-Hua Chen, Chi-Chieh Yang, Chien-Long Kuo, Hurng-Sheng Wu J Clin Ultrasound , Vol. 35, Issue 3, 2007/02, p.164-8 , IF= 0.645
11. Prevalence and risk factors of gallstone disease in an adult population of Taiwan: an epidemiological survey. Chen, Chien-Hua; Huang, Min-Ho; Yang, Jee-Chun; Nien, Chiu-Kue; Etheredge, Gina Doskey; Yang, Chi-Chieh; Yeh, Yung-Hsiang; Wu, Hurng-Sheng; Yueh, Sen-Kou Journal of Gastroenterology and Hepatology , Vol. 21, No. 11, 2006/11, p. 1737-1743 , IF= 1.673
12. Ruptured Appendiceal Cystadenoma Presenting as Right Inguinal Hernia in a Patient With Left Colon Cancer: A Case Report and Review of Literature. Yueh-Tsung Lee; Hurng-Sheng Wu; Min-Chang Hung; Shang-Tao Lin; Yome-Shine Hwang; Min-Ho Huang. BMC Gastroenterology , 6:32 2006/10, p.1-7 , IF= 1.975
13. Personal Experience of Replantation for Tamai Zone I Fingertip Amputation Chien-Sheng Liao; Liang-San

- Cheng;Jie-Chuan Lien;Hurng-Sheng Wu;Min-Ho Hwnag The Journal of Plastic Surgical Association R.O.C. , Vol.15, No.3, 2006/09, p.229-240
- 14.Mechanisms inactivating the gene for E-cadherin in sporadic gastric carcinomas. YC Liu, CY Shen, HS Wu, TY Hsieh, DC Chan, CJ Chen, JC Yu, CP Yu, HJ Harn, PJ Chen, CB Hsieh, TW Chen, HM Hsu. World J Gastroenterol , 1214, 2006/04, p.2168-2173
 - 15.Robotic-assisted laparoscopic adrenalectomy-initial two cases report. Jungle C.H. Wu, Hurng-Sheng Wu , Mao-Sheng Lin, Min-Ho Huang. Journal of Formosan Medical Association. , Vol.104, No. 10, 2005, p.748-751 , IF= 0.533
 - 16.Laparoscopic Common Bile Duct Exploration: Experience of 22 Patients Yi-Ju Wu;Hurng-Sheng Wu;Dev-Aur Chou;Min-Zheng Tang;Min-Chang Hung;Chin-Hung Hsu;Chi-Hung Tsai;Jyh-Chung Yang;Min-Ho Hung Formosan Journal of Surgery , Vol.38,No.6, 2005/12, p.274-278
 - 17.Decreased uptake after fractionated ablative doses of iodine-131. Hurng-Sheng Wu, Huey-Herng Hseu, Wan-Yu Lin, Shyh-Jen Wang, Yao-Chi Liu European Journal of Nuclear Medicine and Molecular Imaging , Vol. 32, No. 2 2005/02, p.102-108 , IF= 4.101
 - 18.Different tumor necrosis factor- α -associated leptin expression in rats with dimethylnitrosamine and bile duct ligation-induced liver cirrhosis Shih Yi Lin ; Wen Yin Chen ; Yung Tsung Chiu ; Wen Jane Lee ; Hurng Sheng Wu; Sheu Wayne Huev-Heme Metabolism clinical and experimental , Vol. 54, No. 4, 2005, p. 445-452 , IF= 2.647
 - 19.Robotic-assisted laparoscopic resection of ectopic pancreas in the posterior wall of gastric high body: Case report and review of the literature Sheng-Der Hsu, Hurng-Sheng Wu, Chien-Long Kuo, Yueh-Tsung Lee World J Gastroenterol , 1148, 2005/11, p.7694-7696
 - 20.Squamous cell carcinoma arising from longstanding colocutaneous fistula: A case report. Yueh-Tsung Lee, Sheng-Der Hsu, Chien-Long Kuo, Dev-Aur Chou, Mao-Sheng Lin, Min-Ho Huang, Hurng-Sheng Wu. World J Gastrenterol , Vol.11, No.33, 2005/09, p.5251-5253
 - 21.A False Negative Non-Morphine-Augmented Hepatobiliary Scan in a Patient with Empyematous Calculous Cholecystitis Shih-Chuan Tsai;Chi-Chieh Yang;Dev-Aur Chou;Hurng-Sheng Wu;Chien-Long Kuo Annals of Nuclear Medicine and Sciences , Vol.18,No.2, 2005/06, p.117-120
 - 22.Value of CT in the diagnosis and management of gallstone ileus Chih-Yung Yu, Chang-Chyi Lin, Rong-Yaun Shyu, Chung-Bao Hsieh, Hurng-Sheng Wu, Yeu-Sheng Tyan, Jen-I Hwang, Chang-Hsien Liou, Wei-Chou Chang, Cheng-Yu Chen World J Gastrenterol , Vol.11, No.14, 2005/04, p.2142-2147
 - 23.Reappraisal of percutaneous transhepatic cholangioscopic lithotomy for primary hepatolithiasis C.- H. Chen, M.- H. Huang, J.- C. Yang, C.- C. Yang, Y.- H. Yeh, H.- S. Wu, D.- A. Chou, S.- K. Yueh and C.- K. Nien Surgical Endoscopy , Vol.19, No. 4, 2005/04, p.505-509 , IF= 2.242
 - 24.Value of Tc-99m Labeled Red Blood Cell Three-Dimensional SPECT Images for The Detection of Hepatic Hemangiomas. Shih-Chuan Tsai, Chien-Hua Chen, Chi-Chieh Yang, Hurng,-Sheng Wu. Show-Chwan Med J , 5 1-2, 2004, p.1-7.
 - 25.Telomerase and c-myc expression in hepatocellular carcinomas. Yao-Chi Liu, Cheng-Jueng Chen, Hurng-Sheng Wu, De-Chuan Chan, Jyh-Cherng Yu. An-Hang Yang, Yueng-Leung Cheng, Shih-Chun Lee, Horng-Jyh Harn. EJSO , 30 2004, p. 384-390. , IF= 2.065
 - 26.Primary malignant mesothelioma of the greater omentum: report of a case. Yao-Cho Liu, Yen-Liang Kuo, Cheng-Ping Yu, Hurng-Sheng Wu, Jyh-Chherng Yu, Cheng-Jueng Chen, De-Chuan Chan, Chih-Yung YU, Chung-Bao Hsieh, and Teng-Wei Chen Surg. Today , 34 2004, p.780-783 , IF= 0.679
 - 27.Gallium Scanning in Pulmonary Alveolar Proteinosis- A Rare Case Report Tsai SC, Kuo TH, Kuo CL, Huang HT, Lin WP, Chan KS, Wu HS. Clin Nucl Med , Vol. 29, No. 10, 2004/10, p.667-669 , IF= 3.231
 - 28.Clinicopathologic Evaluation of Immunohistochemical E-Cadherin Expression in 70 Human Gastric Carcinomas Yao-Chi Liu , Hurng-Sheng Wu , Cheng-Ping Yu , Jyh-Cherng Yu , Cheng-Jueng Chen, De-Chuan Chan , Chung-Bao Hsieh , Huan-Mieng Hsu J Med Sci , Vol. 24, No. 4, 2004/08, p.179-184
 29. Tramadol 2.5 mg/kg—1 appears to be the optimal intraoperative loading dose before patient-controlled analgesia. Wei-Wu Pung MD, Hurng-Sheng Wu MD, Chieh-Chiung Tung MD. Can J ANESTH , 2003 p49-51 IF=1.808
 - 30.To predict response chemotherapy using technetium-99m tetrofosmin chest images in patients with untreated small cell lung cancer and compare with p-glycoprotein, multidrug resistance related protein-1, and lung resistance-related protein expression Tsung-Huai Kuo, Feng-Yu Liu, Chen-Yen Chuang, Hurng-Sheng Wu, Jhi-Joung Wang, Albert Kao. Nuclear Medicine and Biology , 30 2003, p.627-632. , IF= 2.478
 - 31.F18-Fluorodeoxyglucose positron emission tomography in detecting metastatic papillary thyroid carcinoma with elevated human serum thyroglobulin levels but negative I-131 whole body scan. Min-Chang Hung, M.D., Hurng-Sheng Wu, M.D., Chia-Hung Kao, M.D., Wen-Kang Chen, Ph.D., and Sheng-Pin Changlai, M.D. Endocrine Research , Vol.29, No. 2, 2003, p.169-175 , IF=0.973
 - 32.Detecting metastatic neck lymph nodes in papillary thyroid carcinoma by 18F-Deoxyglucose positron emission tomography and Tc-99m tetrofosmin single photon emission computed tomography. Yi-Ju Wu, Hurng-Sheng Wu, Ruoh-Fang Yen, Yen-Kung Chen, Chia-Hung Kao, Anticancer Research , 23 2003,

p.2973-2976 , IF= 1.414

33. Comparing Dual Phase T1-201 Thyroid Scan and Fine-Needle Aspiration Cytology to Detect Follicular Carcinoma. Hung-Cheung Leung, Chwen-Tzuei Chang, Hurng-Sheng Wu, Tzu-Yuan Wang, Shung-Shung Sun, Chia-Hung Kao Endocrine Research , 2003, p.291-297 , IF= 0.973
34. Comparison of FDG-PET and Technetium-99m MIBI SPECT to Detect Metastatic Cervical Lymph Nodes in Well-differentiated Thyroid Carcinoma with Elevated Serum HTG but Negative I-131 Whole Body Scan. Hurng-Sheng Wu, Wen-Sheng Huang, Yao-Chi Liu, Ruoh-Fang Yen, Yeh-You Shen, Chia-Hung Kao Anticancer Research , 23 2003, p.4235-4238 , IF= 1.414
35. Technetium-99m Tetrofosmin Single Photon Emission Computed Tomography to Detect Metastatic Papillary Thyroid Carcinoma in Patients with Elevated Human Serum Thyroglobulin Levels but Negative I-131 Whole Body Scan. H-S Wu, F-Y Liu, W-S Huang, Y. C. Liu, C-T Liu, C-T Chang, C-H Kao. Clinical Radiology , 58 2003, p.787-790 , IF= 1.429

中文題目：機器人手術最近的發展及運用

英文題目：Recent Development and Application in Robotic surgery

作者：吳鴻昇¹、邱文祥²、歐宴泉³、蔡建松⁴、李奇龍⁵

服務單位：秀傳紀念醫院¹、台北市衛生局²、台中榮民總醫院³、三軍總醫院⁴、林口長庚紀念醫院⁵

引言：

機器人手術即「電腦輔助手術」Computer Assisted Surgery 將領導醫學邁向重大的進步，影響不僅在 21 世紀，而且未來 1000 年。

Nature 雜誌刊登 2001 年 9 月 7 日由法國馬赫斯克教授遠跨大西洋在紐約透過當時機器人設備 Zeus(已被合併，不再生產)遙控機器人替位在法國史特拉斯堡的病人進行機器人輔助腹腔鏡膽囊摘除術，結合高科技影像傳輸，遠距遙控等電腦系統成就了“林白手術”Lindbergh Operation。

自從 2004 年兩家醫用機器人設備的廠商合併後截至 2007 年只生產達文西(da Vinci)機器人。全球約 674 套達文西，美國是生產國佔最多(520 套)，其次是歐洲(110 套)；亞洲(30 套)，其中以韓國 18 套最多，台灣目前共計有 6 套：含 1 套 Zeus、5 套 da Vinci。機器人手術以攝護腺癌根治術、心臟瓣膜手術及婦科手術有明顯上升的趨勢，將針對機器人手術系統的教育與訓練，以及從事機器人手術之泌尿外科、心臟血管外科、婦產科等領域專家報告國內發展近況。

電腦輔助手術在虛擬實境的研究與發展，以及經單一孔道的微創手術將會帶給外科更大的運用。

中文題目：電腦輔助手術最近的研究與發展

英文題目：Recent Research and development in computer-aided surgery

作者：吳鴻昇¹、周德教^{1,2,3}、黃明和^{1,2,3}、J. Marescaux⁴

服務單位：秀傳紀念醫院¹、彰濱秀傳紀念醫院²、亞洲微創手術訓練中心、EITS/IRCAD⁴

引言：

電腦輔助手術引領外科有重大突破，特別是虛擬實境的運用。可以歸納為三個主要步驟，第一將病人醫學影像做 3D 自動重建，其所組合的立體影像，有助於術前的計畫(planning)；其次按計畫模擬(simulation)器械進出孔道與手術過程；第三步驟將病灶及周遭重要的解剖影像重疊在內視鏡的影像，這種重疊實際影像提供外科醫師能透視他的病人並追蹤器械及病灶，可避免傷害到病灶周遭的重要組織，特別是大血管。法國 EITS/IRCAD 研發團隊不僅證實客觀的可行性也提出現存的限制。

將虛擬實境的位置及器械自動化，整合呼吸的運動變成同步的動作避免操作上的誤差，最後將所有的資訊輸入機器人操作手術，這是未來透過機器人全自動執行一些常見手術的發展。

現階段值得注意是經過一個孔道(例如肚臍)，插入不同器械，器械的顯微關節化(Micro-wrist)

可突破現階段腹腔鏡器械缺乏關節活動的缺點，也可突破一般外科電腦輔助手術發展的困境。

Hsu YH* (許永祥), MD.

Buddhist Tzu-Chi General Hospital and Tzu-Chi University (佛教慈濟綜合醫院暨慈濟大學)

CASE HISTORY:

Signalment : 73-year-old man

Clinical History:

A 73-year-old man was admitted to Buddhist Tzu Chi General Hospital, Taiwan, for respiratory failure and generalized edema. The patient had experienced intermittent dyspnea for 1 month. He had suffered from numerous episodes of hypoglycemia and loss of consciousness in the past 2 years. The patient had decreased breath sounds over the right chest. Peripheral blood smear and biochemistry data were all within normal limits. Chest X-ray showed a huge mass over the right lower lung field. CT demonstrated a huge heterogenous mass lesion (12 X 12 X 17 cm) in the right thoracic cavity with total collapse of the right lower lung, as well as associated pleural effusion. The patient underwent standard thoracotomy via the right 5th intercostal space. A well-capsulated tumor 23 X 18 X 9 cm in size, 2700 g in weight, and originating from the visceral pleura of major fissure of the right upper lobe (RUL) of lung was found. The tumor was completely excised, with wedge resection of the RUL adjacent to the tumor. The postoperative course was smooth and uneventful. Blood sugar became normal and respiratory pattern gradually improved after the operation.

Gross Findings:

The specimens consisted of one lobulated and well circumscribed mass measuring 23.0 x 18.0 x 8.5 cm in size and 2520 g in weight in the fresh state. Grossly, it had whorls of white fibrotic tissue with mottled yellowish areas, small foci of hemorrhage and several small cysts containing serous fluid on cut surface.

Hsu YH* (許永祥), MD.

Buddhist Tzu-Chi General Hospital and Tzu-Chi University (佛教慈濟綜合醫院暨慈濟大學)

CASE RESULT:

Microscopic Findings:

The tumor was composed of hypercellular areas with spindle cells in a storiform pattern, as well as hypocellular areas with myxoid and collagenized fibrous tissue containing microcysts. Focal staghorn-like vessels were seen. Foci of tumor necrosis, nuclear atypia and vascular proliferation were also noted.

Morphology Diagnosis: Malignant solitary fibrous tumor of pleura

Immunohistochemistry:

On immunohistochemistry both vimentin and CD34 stained strong positive in the cells. IGF-binding protein-2 also stained strong positive.

Comments:

SFTP is rare with an incidence of approximately 2.8/100,000. This disease has the greatest occurrence in the fifth to the seventh decades, although a case in an 8-year-old boy has been reported. Solitary fibrous tumors most commonly originate from the pleura, but they may also arise from the peritoneum, mediastinum, meninges, nose, and oral cavity. These tumors usually arise from the visceral pleura, with a smaller percentage (approx. 20–40%) arising from the parietal pleura. SFTP can present with various kinds of symptoms, such as dyspnea, chest pain, cough and hemoptysis. Hypoglycemia is seen in 5% of SFTP cases. The cause of hypoglycemia is related to IGF produced by these tumors. IGF-binding protein-2 is expressed in many malignant tissues, such as hepatocellular carcinoma and breast cancers. The tumor cells in the present patient were strongly positive for IGF binding protein-2 on immunochemical stain. IGF-binding proteins can potentiate the action of IGF. No further incidences of hypoglycemia were seen in the present patient after resection of the tumor. We strongly speculated that IGF-binding protein-2 in this SFTP may have facilitated production of IGF, which caused refractory hypoglycemia in the present patient, although the serum IGF-I level was normal. The mass effect of this huge SFTP in the present patient also resulted in generalized edema and respiratory failure, which improved after resection of the tumor. Malignant tumor accounts for approximately 12% of all SFTP. It is difficult to differentiate benign from malignant SFTP based on imaging studies. Signs of malignant potential include central necrosis, diameter 10 cm, and ipsilateral pleural effusion. SFTP is graded as benign or malignant according to histological features, such as increased cellularity, necrosis, pleomorphism, mitosis and tumors 8 cm. Complete en bloc surgical resection is the mainstay of therapy for all benign and malignant SFTP. Minimally invasive techniques such as video-assisted thoracoscopy, are the preferred surgical approach for smaller tumors. For large SFTP with a high suspicion of malignancy, standard thoracotomy with extended resection should be considered. The role of adjuvant therapy in SFTP had not been systemically explored because of the limited number of patients.

The present report emphasizes that hypoglycemia resulting from a solitary fibrous tumor, although uncommon, should not be forgotten. The cause of hypoglycemia is related to IGF produced by these tumors. One should bear in mind that SFTP is potentially a malignant

tumor. Currently, the treatment of choice is complete resection. Standard thoracotomy and complete resection of this giant tumor provided a good result for the present patient.

References:

1. Busund L-T, Righardsen E, Busund R et al. Significant expression of IGFBP2 in breast cancer compared with benign lesion. *J Clin Pathol* 2005; 58: 361–6.
2. Duan C, Xu Q. Role of insulin-like growth factor (IGF) binding proteins in regulating IGF actions. *Gen Comp Endocrinol* 2005; 142: 44–52.
3. Ferretti GR, Chiles C, Choplin RH, Coulomb M. Localized benign fibrous tumors of the pleura. *AJR* 1997; 169: 683–6.
4. Kanamori Y, Hashizume K. Intrapulmonary solitary fibrous tumor in an eight-year-old male. *Pediatr Pulmonol* 2005; 40: 261–4.
5. Klemperer P, Rabin LB. Primary neoplasm of the pleura: A report of five cases. *Arch Pathol* 1931; 11: 385–412.
6. Lee SC, Tzao C. Solitary fibrous tumors of the pleura: Clinical, radiological, surgical and pathological evaluation. *Eur J Surg Oncol* 2005; 31: 84–7.
7. Okike N, Bernaz E, Woolner B. Localized mesothelioma of the pleura. *J Thorac Cardiovasc Surg* 1978; 75: 363–72.
8. Perrot M, Fischer S, Brondler MA, Sekine Y, Keshavjee S. Solitary fibrous tumors of the pleura. *Ann Thorac Surg* 2002; 74: 285–93.
9. Ranke MB, Maier KP, Schweizer R et al. Pilot study of elevated levels of insulin-like growth factor-binding protein-2 as indicators of hepatocellular carcinoma. *Horm Res* 2003; 60: 174–80.
10. Sung SH, Chang JW. Solitary fibrous tumors of the pleura: Surgical outcome and clinical course. *Ann Thorac Surg* 2005; 79: 303–7.

Lai MT* (賴銘淙), MD, PhD.

Department of pathology, Chang Bing Show Chwan Memorial Hospital (彰濱秀傳紀念醫院病理科)

CASE HISTORY:

Signalment: 57 year-old woman

Case History:

This 57 year-old woman was generally healthy in the past. She suffered from palpable mass of neck for more than one year. The mass of right neck more enlargement and palpitations in recent. She came to LMD for help, first. Thyroid goiter was impression and then transferred to our GS OPD for further evaluation.

The physical examination found ill-defined mass of right neck about 2.3 cm in diameter. Neck echo showed suspected parathyroid cancer of right nodular goiter of bilateral and lymph nodes enlargement over neck. Tc-99 thyroid scan showed right lobe measured 2.66 x 4.99 mm, while left lobe measured 2.46 x 4.18 mm. A relative nodule in the lower pole of the left lobe. Needle aspiration was suggested for rule out the possibility of malignant lesion. Under this impression of thyroid goiter of right., she accept surgical intervention of total thyroidectomy. and neck lymph node dissection.

Clinical Pathology:

CBC: RBC: 430*10⁴/ul (ref:420-540), Hb:13.5gm/dl;Hct:39.3%;WBC:9100/ul; MCV91/fl; MCH:31.4/pg(ref:27-31); MCHC:34.4gm/dl; PLT:24.5*10⁴/du; LYM:17%(ref:19-48%); Seg: 80%(40-74); Band:1%(2-6);Mono2%(3.4-9.0)

Biochemistry: BUN, CA, CREA, GLU-AC, GOT, GPT, K, NA , P within normal limit
T3: 86 ng/dl (ref:79-149); T4: 6.71 ug/dl (ref:4.5-12.0); TSH: 1.456 (ref:0.49-4.67); Free T4: 0.88 (ref:0.71-1.85); TA (Thyroglobulin Ab: 26.4 (ref:<34)

Urinalysis: Bil(1+); GLU(-); KET(-); OB(-); PH: 6; PRO(+/-); Sp.gr: 1.020; URO: norm; WBC(1+); EPI(5-10); Other: mucin2+; RBC(0-1); WBC:1-5

Other Test:

Chest Images: No nodular or active lung lesion

ECHO: right thyroid goiter; multinodules, heterogenous, irregular margin, cystic change

Fine needle aspiration cytology: suspicious for malignancy

Gross Findings:

The specimen submitted consists of right thyroid, left thyroid and parathyroid soft tissue. The right thyroid measures 4*3*2 cm in size and 13.5gm in weight. It contains a solid and white-grayish mass measuring 2.5*2*2 cm in size. The tumor is a ill-defined, hard, lobulated, gray-tan mass. The left thyroid measures 3*2*1 cm in size and 5 gm in weight.

Lai MT* (賴銘淙), MD, PhD.

Department of pathology, Chang Bing Show Chwan Memorial Hospital (彰濱秀傳紀念醫院病理科)

CASE RESULT:

Histopathological Findings:

The tumor invades the thyroid tissue predominantly in pushing fronts. Variably sized, often smooth-contoured, lobules or cords of tumor cells are demarcated by broad cellular fibrous septa. The tumor cells either have indistinct cell borders, vesicular nuclei, and prominent nucleoli, or exhibit a squamoid appearance, with more distinct cell borders. Some tumor cells can appear spindle-shaped. The tumor islands are often penetrated by delicate fibrovascular septa. The tumor cells are fibrous septa show scanty to heavy infiltration by lymphocytes and plasma cells.

Immunohistochemistry:

Thyroid globulin and TTF-1 are negative. The EMA, 34BE12, CD5 and CD117 are positive in the cytoplasm and membrane of the tumor cell. Chromogranin shows focal and weak positive.

Differential Diagnosis:

1. Undifferentiated carcinoma
2. Lymphoepithelioma-like carcinoma
3. Squamous cell carcinoma
4. Metastatic squamous cell carcinoma
5. Spindle cell tumor with thymus-like differentiation (SETTLE)
6. Metastatic thymic carcinoma

Diagnosis: Carcinoma with thymus-like element (CASTLE) or Carcinoma showing thymus-like differentiation; Ectopic (intrathyroid) thymic carcinoma

Diagnostic Criteria:

1. Histologic findings: pushing invasive fronts; lobulated patterns created by dense fibrous sept; absent or limited coagulative necrosis
2. Immunoreactivity for CD5 and CD 117

Discussion:

Intrathyroid epithelial thymoma (ITET)/ carcinoma showing thymus-like differentiation (CASTLE) is a rare malignant neoplasm of the thyroid resembling lymphoepithelioma-like and squamous cell carcinoma (SCC) of the thymus. This disease was initially proposed by Miyauchi et al in 1985 as ITET, which should be differentiated from SCC of the thyroid. Rosai accepted it as a novel neoplastic entity of the lower neck, and Chan and Rosai denominated it as carcinoma showing thymus-like differentiation. Recently, this disease has been designated as an independent clinicopathologic entity of thyroid tumors in the newest edition of the WHO classification of the tumors of endocrine organs.

This disease is thought to originate from ectopic thymic tissue or remnants related to thymic development in or adjacent to the thyroid because the tumor usually occurs in the lower part, especially the lower pole, of the thyroid and shows several features of thymic differentiation, such as the following: (1) lobulation on cut surfaces; (2) an expansive growth

patterns; (3) thick, fibrous bands dividing the tumor cell nests; (4) the presence of many lymphocytes; (5) perivascular spaces with lymphocytes; (6) rare or infrequent mitoses; and (7) oval, vesicular nuclei, sharply defined nucleoli, and pale cytoplasm. Furthermore, lack of foci of papillary, follicular, medullary, or anaplastic carcinoma is also an important characteristic.

Thyroid CASTLE had much better prognosis than that of the ordinary SCC of the thyroid with a median survival time of 10.5 year. Curative resection followed by radiation therapy may effectively prevent locoregional recurrence and CD5 immunostaining is useful for diagnosing CASTLE.

Reference:

1. Christopher D.M. Fletcher. Diagnostic histopathology of tumors, 3ed. Vol 2 P.1048-9
2. Yasuhiro Ito et al. Clinico pathologic significance of intrathyroid epithelial thymoma/ carcinoma showing thymus-like differentiation Am J Clin Pathol; 127; 230-236,2007
3. D.M.Dorfman et al. Intrathyroid epithelial thymoma/ carcinoma showing thymus-like differentiation(CASTLE) exhibits CD5 immunoreactivity: new evidence for thymic differentiation. Histopathology 32, 104-109, 1998
4. I.B.Bayer-Garner et al. Carcinoma with thymus-like differentiation arising in the dermis of the head and neck J Cutan Pathol 31:625-629, 2004
5. Tania A. et al. Carcinoma da Tireoide com diferenciacao semelhante a timo (CASTLE): relato de caso e revisao da literature, Arq Bras Endocrinol Metab 52/3 550-555, 2008
6. DA Jiping et al. Thyroid squamous-cell carcinoma showing thymus-like element (CASTLE): a report of eight cases, Chinese Journal of Oncology vol 21, no.4, 1999

蘇子誠*, MD.

Department of Pathology, Changhua Christian Hospital, Changhua (彰化基督教醫院病理科)

CASE HISTORY:

Signalment: 19-year-old Vietnam woman

Clinical History:

The patient, a constructional worker, was previously in good health. She was admitted from outpatient department to general surgery department because of right neck mass noted for 1 year and rapid progression for 2-3 months. Physical examination revealed a firm nodule at neck. Ultrasonography revealed a isoechoic nodule, measuring 4.6x2.0x2.9 cm in size, at right lobe of thyroid and a hypoechoic nodule, measuring 0.8x0.7x0.5 cm in size at left lobe. The cytologic finding of thyroid aspiration revealed hypercellular clusters of follicular cells and atypical follicular cells with enlarged nuclei. Under the impression of suspicion of follicular carcinoma, surgical treatment was arranged.

Clinical Pathology:

Serum Ca²⁺ : 9.3 mg/dL (8.7-10)

TSH: 0.7133 μ IU/mL (0.35-4.94)

Free T4: 1.2 ng/dl (0.7-1.48)

CBC/DC, GOT/GPT and BUN/creatinin were within normal limits.

The cytology of fine needle aspiration of thyroid revealed hypercellular clusters of follicular cells and atypical follicular cells with enlarged nuclei..

Gross Findings:

The "right lobe of thyroid" consists of one tissue fragment measuring 7x3.5x3.5cm in size and 28gms in weight, sent for frozen section. There is a yellowish to grayish, elastic to firm, irregular-bordered tumor measuring 4.5x3x3cm is located within thyroid with lobulation and focal necrosis.

蘇子誠, MD.

Department of Pathology, Changhua Christian Hospital, Changhua (彰化基督教醫院病理科)

CASE RESULT:

Histopathologic Description:

Microscopically, sections of right thyroid show a well-defined tumor with nested, organoid or trabecular pattern composed of polygonal to spindle cells separated by fibrovascular stroma. The tumor cells consists of oval regular nuclei with granular amphophilic cytoplasm and focal mitotic figures. The tumor is confined in the thyroid tissue. The section margins are free. The immunohistochemical stains demonstrate the tumor cells as CD56(+), synaptophysin(+), chromogranin A(+), TTF-1(focal +), calcitonin(+), cytokeratin19(-), and thyroglobulin(-). The section of lymph nodes reveal metastatic carcinoma in one of the eight lymph nodes.

Morphologic diagnosis: Medullary carcinoma of right lobe of thyroid with metastatic medullary carcinoma of cervical lymph node (1/8).

Comment:

Medullary thyroid carcinoma is a malignant tumor showing parafollicular C-cell differentiation. It accounts for 5 % of primary thyroid malignant tumor. The diagnosis is made by the cytoarchitectural pattern and immunohistochemical stains to keratin, TTF-1, pan-endocrine markers, CEA and calcitonin. In this case, the tumor shows polygonal to spindle cells with granular amphophilic cytoplasm and immunoreactive to synaptophysin, chromogranin A, TTF-1 and calcitonin. The medullary carcinoma is not particularly responsive to radioactive iodine, irradiation or chemotherapy. Adequate surgical clearance (total thyroidectomy and cervical lymphadenectomy) is mainstay of primary treatment. Approximately 70-80 % of medullary carcinoma are sporadic and 20-30 % belong to the hereditary form¹. The different features of hereditary forms from the sporadic ones include younger age at diagnosis, coincident pheochromocytoma, parathyroid hyperplasia or mucosal neuromas in MEN IIA and MEN IIB and C-cell hyperplasia in background, higher frequency of bilaterality, germline mutation in RET proto-oncogene² in hereditary forms. In this case, neither definite familial history of thyroid carcinoma nor above mentioned features is noted.

References:

1. Raue F, Kotzerke J, Reinwein D, Schröder S, Röher HD (1993) Prognostic factors in medullary thyroid carcinoma: evaluation of 741 patients from the German Medullary Thyroid Carcinoma Register. Clin Invest. 71, 7-12
2. Matias-Guiu, Xavier (1998) RET Protooncogene Analysis in the Diagnosis of Medullary Thyroid Carcinoma and Multiple Endocrine Neoplasia Type II Advances in Anatomic Pathology 5, 196-201

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2008**

Chinese Society of Comparative Pathology, Nov.

Huang CM* (黃俊銘), DVM; Pang VF (龐飛), DVM, MS, PhD.

School of Veterinary Medicine, National Taiwan University (國立台灣大學獸醫專業學院)

CASE HISTORY:

Signalment: 13-year-old, female (intact), Chihuahua dog

History:

A firm and fixed ventral neck mass was noted for 3 months and it grew rapidly recently. The trachea and esophagus were deviated to the right side by the mass. The animal could only eat liquid food during this period.

The dog received surgery on 2007/9/30 and it was found that the mass was adhered to the trachea, esophagus, muscle, left recurrent laryngeal nerve, and left thyroid gland. There was a cyst in the mass and bloody serous discharge exuded out during surgery.

Gross Findings:

The size of the mass was about 7X7X5 cm and partially encapsulated with tight adhesions with surrounding tissue. On the cut surface, the mass contained multiple, coalescing, yellow-white, indistinct nodular structures with some necrotic and hemorrhagic areas. In the center of the mass, there were several variably sized cystic structures.

Huang CM* (黃俊銘), DVM; Pang VF (龐飛), DVM, MS, PhD.

School of Veterinary Medicine, National Taiwan University (國立台灣大學獸醫專業學院)

CASE RESULT:

Histopathological Findings:

Microscopic examination of the specimen reveals that it is not well demarcated and consists of sheets of neoplastic cells. The neoplastic cells are plump, fusiform to polyhedral and varying in sizes; the nuclei are round, oval to polygonal and variable in sizes with prominent nucleoli. Mitotic activity is low, ranging from 0 to 2/HPF. Areas of formation of poorly to well differentiated hyaline cartilage with varying calcification intermingled with areas of irregular deposition of eosinophilic osteoid-like substance are randomly scattered throughout the mass. Extensive central necrosis, hemorrhage, edema, mineralization, and cholesterol cleft formation are also noted in the mass.

Immunohistochemistry:

The double positivity of the growth for cytokeratin and vimentin confirms the presence of both epithelial and mesenchymal components. The double positivity for thyroglobulin and thyroid transcription factor-1 (TTF-1) further suggests that the epithelial component is possibly derived from thyroid follicular epithelial cells.

Diagnosis: Thyroid carcinosarcoma with cartilage and osteoid formation, thyroid gland

Comments:

Carcinosarcoma is a malignant neoplasm that contains both neoplastic epithelial and mesenchymal components. The diagnosis of thyroid carcinosarcoma in the present case is mainly based on the morphological characteristics of the growth and the results of IHC staining. Based on the anatomic position, carcinosarcoma of salivary gland should be considered as the other possible differentiation.

References:

1. Giuffrida D, Attard M, Marasa L. Thyroid carcinosarcoma, a rare and aggressive histotype: a case report. *Ann Oncol* 11:1497–1499, 2000
2. Grubor B, Haynes JS. Thyroid carcinosarcoma in a dog. *Vet Pathol* 42:84–87, 2005
3. Wells HG: Multiple primary malignant tumors: report of a primary sarco-carcinoma in the thyroid of a dog, with mixed sarcomatous and carcinomatous metastases. *J Pathol Bacteriol* vii:357-367, 1901

Tsai MT* (蔡睦宗), DVM, MS; Chen WL (陳文烈), DVM; Lee ML (李明廉), DVM, MS; Huang ST (黃旭田), DVM, MS; Shu JP (徐榮彬), DVM, MS, PhD.
Pingtung Livestock Disease Control Center (屏東縣家畜疾病防治所)

CASE HISTORY:

Signalment: 2-day-old, newborn piglets, TaoyuanxDuroc (TD) hybrid black type, swine

Clinical History:

Three newborn piglets, 2-day-old, TD hybrid black type, were presented to our lab from a sow farrow-to-wean pig farm. Within latest four months, newborn piglets of 33 litters from total 40 litters were all affected and died within three days old. The newborn piglets showed signs of weakness, reluctant to suck the sow's milk, shivering, unsteady gait, dry and shiny hairless skin with scaliness and swollen appearance, especially at head, neck and shoulder or even the whole body skin surface (myxedema). Trimethoprim and sulfanamide combination drug (TS1) had been used to prevent the clostridium infection in piglets. After definite diagnosis, owner of the pig farm added the mixed minerals containing Iodine to all the milking sows. Newborn piglets maintain normally without previous clinical signs thereafter.

Laboratory Results:

Blood samples of two newborn piglets were sent to test the thyroid function at local clinical lab. Total T4 concentrations in these two serum samples were 0.815 µg/dl and 0.849µg /dl, respectively, using chemiluminescence immunoassay (normal serum T4 concentrations is 5.5µg/dl at newborn piglet of 2-day-old). Serum total T4 concentration in these two newborn piglets revealed lower than normal value. Serum TSH concentration using chemiluminescence immunoassay in one of serum samples was 0.012 mU/ml.

Gross Lesions:

At necropsy, both lobes of the thyroid gland were prominent and enlarged. The whole body skin surface was dry, shiny and hairless swollen appearance, especially at head, neck, and shoulder area and covered with scaliness in partial skin area. The skin was thickened with white gelatinous-like material. Interlobular edema of the lung was also noticed.

Tsai MT (蔡睦宗)*, DVM, MS; Chen WL (陳文烈), DVM; Lee ML (李明廉), DVM, MS; Huang ST (黃旭田), DVM, MS; Shu JP (徐榮彬), DVM, MS, PhD.

Pingtung Livestock Disease Control Center (屏東縣家畜疾病防治所)

CASE RESULT:

Histopathologic description:

Thyroid: The follicles of thyroid glands are irregular in size and shape containing varying amounts of colloid, which is weakly eosinophilic and vacuolated. Some follicles collapse because of the lack of colloid. The lining epithelial cells are cuboidal to columnar and have deeply eosinophilic cytoplasm and small darkly staining nuclei, which are often situated in basilar portions of the cells. The follicles are lined by single or multiple layers of hyperplastic follicular cells that, in some follicles, form papillary projections into the lumens.

Skin: Orthokeratotic hyperkeratosis of the epidermis and the hair follicles and an increase in dermal deposition of mucin, which results in dermal thickening and disruption of dermal collagen and elastin fibers, are prominent. The primary follicles of the skin are usually in the telogen stage of the hair cycle.

Morphologic diagnosis:

Thyroid: Hyperplasia, follicular, diffuse, moderate to severe (hyperplastic goiter), TaoyuanxDuroc (TD) hybrid black type, swine

Skin: Orthokeratotic hyperkeratosis, multifocal, severe, with dermal mucinosis

Etiology:

Contributing causes of congenital hyperplastic goiter with hypothyroidism in newborn piglets includes a deficiency of iodine in the diet of sows during pregnancy, dietary constituents (goitrogens) fed to the sow, iodine toxicity from dam being fed an excess of iodine and an inherited congenital goiter in pigs.

Comments:

Non-neoplastic and noninflammatory clinical enlargements ("goiter") of the thyroid develop in all domestic mammals, bird, and submammalian vertebrates. It may be accompanied by either hypo- or hyperthyroidism or compensated function. Several forms exist in animals including simple goiter, multinodular goiter, and exophthalmic goiter. Congenital hypothyroidism in domestic animals usually is associated with hyperplastic goiter, even though the dam may show no evidence of thyroid dysfunction. Affected foals show extreme weakness and die within a few days after birth. The thyroids may be only slightly enlarged. Calves are somewhat more resistant to the effects of hypothyroidism. Although up to 70-80% may have large goiters in endemic areas, the majority survive and thrive. A few calves are partially or completely hairless, but these are either born dead or die soon after birth. Newborn goitrous pig, goats, and, lamb frequently have myxedema and alopecia. The mortality rate is high, with the majority being born dead or dying within a few hours of birth. Enlarged thyroid glands are readily palpable or visible in kids and lambs, but are not readily apparent in piglets because of the combination of a short neck and the development of myxedema. The tongue is swollen and there edematous swelling of the fauces and larynx, which probably are contributory factors to death of the animals. Asphyxiation may result also from pressure by the enlarged thyroid gland on the trachea and adjacent structures.

Young, goitrous animals that are treated and survive usually do not show permanent ill effects. Congenital hyperplastic goiter with hypothyroidism is not a prominent feature of thyroid disease in domestic carnivores. However, degrees of follicular cells hyperplasia will be found that parallel changes in the maternal gland. In puppies, the thyroid enlargement may be sufficiency to cause dystocia or asphyxiation.

It has long been known that a deficiency of iodine in the diet of a sow during pregnancy can lead to the birth of weak, hairless piglets which have an enlarged thyroid gland (goiter). Many of the piglets have a mucinous edema, especially over enlarged foreparts of the body. A similar type of congenital goiter has also arisen in pigs when dietary constituents (goitrogens) which interfere with the synthesis of thyroid hormone are fed to the sow; for example, thiouracil and rapeseed containing high levels of glucosinolates. Goitrogens act by limiting the capacity of the thyroid gland either to trap iodine or to incorporate iodine into thyroactive substances. Goitrogenic effects in offspring of swine fed sulfamethoxine and ormetoprim in late gestation and a genetic defect in the sow in the biosynthesis of thyroid hormones also had been reported or iodine toxicity from dam being fed an excess of iodine. Although hyperplastic goiter in piglets usually occurs as a result of the above causes, the exact causes of this case need to be elaborated by more laboratory results because they all might have goiter, hairless skin and myxedema. According to serum total T4 concentrations of the two 2-day-old piglets (0.815 µg/dl and 0.849µg /dl, respectively) referred to the local clinical lab are lower than normal value, it indicate this is a case of congenital hyperplastic goiter with hypothyroidism. Pathological lesions are characterized by hyperplastic goiter, hypotrichosis, orthokeratotic hyperkeratosis and myxedma of the skin. Myxedema develops because of accumulation of glycosaminoglycan and hyaluronic acid in the dermis and subcutis. These substances bind considerable amounts of water, which results in notable thickening of the skin. After the definite diagnosis, the owner of this pig farm adds the new premix trace element containing iodine (400mg per 1000g) and suspends TS1 (trimethoprim and sulfamethoxazole) drug to the feed in all milking sow. Newborn piglets maintain normally without previous clinical signs gradually thereafter.

In human medicine, two classic clinical manifestations of hypothyroidism include cretinism and myxedema. Cretinism refers to hypothyroidism that develops in infancy or early childhood. In the past, this disorder occurred fairly commonly in areas of the world where dietary iodine deficiency is endemic, such as the Himalayas, inland China, Africa, and other mountainous areas. On rare occasions, cretinism may also result from inborn errors in metabolism that interferes with the biosynthesis of normal levels of thyroid hormone. Clinical features of cretinism include impaired development of the skeletal system and central nervous system, manifested by severe mental retardation, short stature, coarse facial features, a protruding tongue, and umbilical hernia. The term myxedema is applied to hypothyroidism developing in the older child or adult. Clinical features of myxedema are characterized by a slowing of physical and mental activity.

References:

1. Blackwell TE, Werdin RE, Eisenmenger MC, FitzSimmons MA. Feb 15, 1989. Goitrogenic effects in offspring of swine fed sulfamethoxine and ormetoprim in late gestation. JAVMA. Vol 194, No 4, 519-523.
2. Cameron R. Nutritional diseases. In: Straw BE., Zimmerman JJ, D'Allaire S, Taylor DJ. Diseases of swine, 9th ed. Ames, Iowa, Blackwell Publishing. 2006.194.
3. Capen CC. Goiter. In: McGavin MD, Carlton WW, Zachary JF. Thomson's Special Veterinary Pathology. St. Louis, Missouri, Mosby, Inc. 2001.298-300.
4. Greco DS. 2006. Diagnosis of congenital and adult-onset hypothyroidism in cats. Clin Tech Small Anim Pract 21:40-44.
5. Hill GM, Spear JW. Trace and ultratrace elements in swine nutrition. In: Lewis AJ, Southern LL, eds. Swine Nutrition. Boca Raton: CRC Press, 2001.229-261.

6. Jones TC, Hunt RD, King NW. Goiter In: Jones TC, Hunt RD, King NW. Veterinary Pathology. 6th ed. Baltimore, Maryland, Williams & Wilkins. 1997. 810 &1236.
7. La Perle KMD, Capen CC. Disorders of the thyroid gland. In: McGavin MD, Zachary JF. Pathologic basis of veterinary disease. 4th ed. St. Louis, Missouri, Mosby, Inc. 2007. 720-728.
8. Maitra A, Abbas AK. Hypothyroidism. In: Kumar V, Abbas AK, Fausto N. Robbins and Cotran pathologic basis of disease., 7th ed. Philadelphia, PA, Elsevier Inc, 2005. 1167-1169.
9. Maxie MG, Youssef S. Thyroid gland. In: Maxie MG. Jubb, Kennedy, and Palmer's Pathology of Domestic Animals. 5th ed. Philadelphia, PA, Elsevier Limited, 2007. 379-407.
10. Welchman D.deB, Cranwell MP, Wrathall AE, Christensen P. Dec 17, 1994. An inherited congenital goiter in pigs. Vet Rec. 135:589-593.

Chen KC (陳鯤兆)¹; Liao CW (廖振唯)²; Cheng FP (鄭豐邦)³; Chou CC (周濟眾)³; Chang SC (張仕杰)³; Wu JH (吳昭慧)⁴; Lee YF (李易帆)¹; Chang WF (張文發)⁴; Liao JW* (廖俊旺)^{1,4}.

Graduate Institute of Veterinary Pathology (獸醫病理生物學研究所)¹, Department of Chemistry (化學研究所)², Department of Veterinary Medicine (獸醫學研究所)³, and Animal Disease Diagnostic Center (動物疾病診斷中心)⁴, National Chung Hsing University (國立中興大學).

CASE HISTORY:

Signalment: Sprague-Dawley (SD), 16 wk-old, male, rat

Clinical History:

A suspected contaminated pet food was fed with 50% in diet for 8 weeks and then was increased to reach 100% from week 9 to 12. In clinic, rats became lethargy, anorexia, wet bedding and gradually loss of body weight.

Clinical Pathology:

CBC Abnormalities:

- Elevated WBC counts (13.6 x10³/m l) [control: 6.5 x10³/m l], mainly in segmental neutrophils (49.6%) [control: 21%], and decreased lymphocytes (45%) [control: 73.2%] in WBC differentiation.
- Decreased the value of MCV (54.5 fl) value [control: 59].

Clinical Chemistry Abnormalities:

- Increased the levels of BUN (165 mg/dl) and creatinine (3.9 mg/dl) [control: 17 and 0.5 mg/dl].
- Increased GGT (2.4 U/l), CK (145 U/l), and phosphorus (14 mg/dl) parameters [control: 0.4, 51 and 7.5 mg/dl].
- Decreased serum chloride (128 mg/dl) [control: 151 mg/dl].
- No affect on the levels of AST and ALT parameters.

Urinary Abnormalities:

- Increased the urine volume (30 ml) [control: 10 ml].
- Decreased the urinary ketone, pH, protein, uric creatinine and urobilirubin (5, 6.7, 30. 0.2 mg/dl, and 36.5 E.U/dl) parameters [control: 25, 7.7, 140, 0.7 mg/dl, and 121 E.U./dl].
- Increased the number of green to brownish aggregated largely round plate like crystals with radiating striations crystals in the urinary sediments.

Gross Findings:

- At necropsy, significant elevated the kidney weight (1.78%), up to 3 folds compared with the control (0.58%).
- Gross findings of kidney included extremely enlargement or atrophy (smaller than usual size), brownish with hemorrhagic plaques and irregular in shapes and rough surface.
- On the cut surface, dilated pelvic and variable fine greenish radiate birefringence crystals located in the cortex and medulla in the kidneys.

Chen KC (陳鯤兆)¹; Liao CW (廖振唯)²; Cheng FP (鄭豐邦)³; Chou CC (周濟眾)³; Chang SC (張仕杰)³; Wu JH (吳昭慧)⁴; Lee YF (李易帆)¹; Chang WF (張文發)⁴; Liao JW* (廖俊旺)^{1,4}.

Graduate Institute of Veterinary Pathology (獸醫病理生物學研究所)¹, Department of Chemistry (化學研究所)², Department of Veterinary Medicine (獸醫學研究所)³, and Animal Disease Diagnostic Center (動物疾病診斷中心)⁴, National Chung Hsing University (國立中興大學).

CASE RESULT:

Histopathologic Description:

Microscopically, the melamine cyanouric acid and (MC) crystals vary in size presented in the kidneys of distal and collecting tubules. The radiate birefringence or basophilic MC crystals not only could be observed without polar light microscopy but also easily seen under polarization. Numerous with varied sizes of MC crystals, accumulation with necrotic cell debris with acute tubulitis were noted in the renal tubules. There were slight to severe/high inflammatory cell infiltration accompanying with the renal tubular dilation and cell regeneration, and slight to severe/high tubular necrosis as chronic active granulation.

Histochemistry and Immunohistochemistry Examinations:

Masson's Trichrome Staining: Slight to moderate focal interstitial fibrosis and MC crystals were easily defined by using Masson's trichrome staining.

Immunohistochemistry (IHC) Staining: Kidney was stained with antibodies of proliferative cellular nuclear antigen (PCNA, PC10, sc-56, Santa Cruz Biotechnology, Inc. USA, 800 dilution) for the renal tubular cell proliferation, and osteopontin (OPN, ab36125, abcam, USA, 500 dilution) was used for crystals in the tubules of kidneys. Results revealed significantly increase of PCNA and OPN index in the cortex and medulla tubules of kidney, indicating the regenerated renal epithelia and crystal formation.

Morphologic Diagnosis:

- Tubulitis, locally extensive, severe, acute with necrotic cells and MC crystals accumulation in the tubules, kidney, rat.
- Interstitial nephritis, focal, moderate to severe, acute to subacute with inflammatory cell infiltration, kidney, rat.
- Interstitial fibrosis, focal, mild, subchronic with tubular regeneration and crystal granulation, kidney, rat.

Other Tests:

- Neither citrinin nor ochratoxin could be detected in this pet food.
- Peaks of cyanouric acid and melamine were identified by using reverse phase-HPLC-UV system.

Final Diagnosis: Melamine and cyanuric acid contaminated pet food induced nephrotoxicity in rats.

Comments:

During early 2004, an outbreak of the pet food-associated renal failure in dogs and cats happened not only in Taiwan but also in other Asia countries (Jeong et al., 2006) which were reported by the numerous media (Asian Economic News and TVBS, 2004). The most

obvious symptoms of kidney disease are lethargy, reduced appetite, loss of weight, poor coat condition or bad breath. The Chinese Society Veterinary Pathology (CSVP) has held a special seminar to discuss the pathological changes of the suspected pets, including severely acute to chronic interstitial nephritis and fibrosis, tubular dilation contained with varied sized of greenish to brownish irregular crystals in kidneys (CSVP 249th case report, 2004). These lots of pet food were original manufactured and imported from Thailand. The nephrotoxic mycotoxins, ochratoxin and citrinin, were initially considered potential causes. The Council of Agriculture (COA) in Taiwan have recalled the suspected pet food, and set a surveillance committee to investigate the epidemiology, mycotoxins and compositions analysis of pet food-associated renal failure during the outbreak period. However, no significant toxic ingredients or chemicals were found related to the pet food-associated renal failure till a second outbreak of pet food associated nephrotoxicosis occurred in North America during early in 2007 (Burns, 2007, Brown et al., 2007; Puschner et al., 2007; Thompson et al., 2008). Nowadays, baby milk powder products contaminated by melamine were suspected of causing kidney stones in babies in China (Southern Metropolis Daily, 2008).

In the outbreaks of pets' renal failure in North America during early in 2007, affected animals died or were euthanized because of severe uremia. Unique polarizable crystals with striations were present in distal tubules or collecting ducts in all examined animals. A chronic pattern of histologic change, characterized by interstitial fibrosis and inflammation, was observed in some affected animals. Melamine and cyanuric acid were present in renal tissue from both outbreaks (Brown et al., 2007). Furthermore, the investigation for cyanuric acid was identified in addition to melamine in the offending food by Puschner et al (2007). From the report, no effect on renal function was observed in cats fed with melamine or cyanuric acid alone. Cats dosed with a combination were euthanized at 48 hours after dosing because of acute renal failure. The results demonstrated that the combination of melamine and cyanuric acid was responsible for acute renal failure in cats.

Melamine and cyanuric acid in wheat gluten, rice protein, and corn gluten imported from China and used as a pet food ingredient were suspected associated with contamination in pet food. Several major commercial pet food companies recalled potentially contaminated pet food products, with most of the recalled food being produced by the Canadian company Menu foods (Weise and Schmit, 2007). Recently, a total of 70 cats exposed to dietary melamine and cyanuric acid in commercially prepared wet-food canned or pouched diets were investigated by Cianciolo et al. (2008). From there results showed that cats fed pet food contaminated with melamine and cyanuric acid, the most consistent clinical and pathologic abnormalities were associated with the urinary tract, specifically tubular necrosis and crystalluria.

One case of a kidney specimen which occurred after eating a commercial dog food in 2004 outbreak of canine renal failure in Taiwan was reported by Thompson et al. (2008). The crystal type was identified as smooth and plate like with staining characteristics and IR spectroscopy and SEM/EDXA results consistent with calcium oxalate crystals. Calcium oxalate-induced nephrolithiasis obstructed and distended renal tubules, chronic interstitial nephritis and fibrotic lesions were noted in experimental rats (Khan, 2004).

The intoxicated levels and mechanisms of cyanuric acid and melamine combination to form crystals in kidneys are still unclear. Dobson et al. (2008) suggested that the two compounds have different pKa's (6.9 for cyanuric acid, 5 for melamine), it is likely that the acid is preferentially absorbed in the stomach and the base in the small intestine and have been possible for the compounds to re-establish a crystalline structure upon exiting the stomach. Importantly, needle-like crystals formed spontaneously from cyanuric acid and melamine

combination mixture after vacuum drying (Reimschuessel et al., 2008). The needle-like crystals might be one of the factors cause acute renal failure similar to acute uric acid nephropathy in early damage.

References:

1. Asian Economic News. (2004). Pedigree brand dog food recalled in Asia after illnesses reported. March 15, 2004, BANGKOK, March 12 Kyodo.
2. Brown, C. A., Jeong, K. S., Poppenga, R. H., Puschner, B., Miller, D. M., Ellis, A. E., Kang, K. I., Sum, S., Cistola, A. M., and Brown, S. A. (2007). Outbreaks of renal failure associated with melamine and cyanuric acid in dogs and cats in 2004 and 2007. *J. Vet. Diagn. Invest.* 19, 525-31.
3. Burns, K. (2007). Recall shines spotlight on pet foods. *J. Am. Vet. Med. Assoc.* 230, 1285- 1288.
4. Chinese Society Veterinary Pathology (CSVP) Association. (2004). Cases reports of pet food associated renal failure in dogs and cats. In CSVP Seminar, 249th case report, Taichung, Taiwan.
5. Cianciolo, R. E., Bischoff, K., Ebel, J. G., Van Winkle, T. J., Goldstein, R. E., Serfilippi, L. M. (2008). Clinicopathologic, histologic, and toxicologic findings in 70 cats inadvertently exposed to pet food contaminated with melamine and cyanuric acid. *J. Am. Vet. Med. Assoc.* 233, 729–737.
6. Dobson, R. L. M., Motlagh, S., Quijano, M., Cambron, R. T., Baker, T. R., Pullen, A. M., Regg, B. T., Bigalow-Kern, A. S., Vennard, T., Fix, A., Reimschuessel, R., Overmann, G., Shan, Y., and Daston, G.P. (2008). Identification and characterization of toxicity of contaminants in pet food leading to an outbreak of renal toxicity in cats and dogs. *Toxicol Sci.* Published by Oxford University Press 2008. (In press)
7. Jeong, W. I., Do, S. H., Jeong, H., Chung, J. Y., Yang, H. J., Yuan, D. W., Hong, I. H., Park, J. K., Goo, M. J., and Jeong, K. S. 2006. Canine renal failure syndrome in three dogs. *J. Vet. Sci.* 7, 299–301.
8. Puschner, B., Poppenga, R. H., Lowenstine, L. J., Filigenzi, M. S., and Pesavento, P. A. (2007). Assessment of melamine and cyanuric acid toxicity in cats. *J. Vet. Diagn. Invest.* 19, 616-24.
9. Reimschuessel, R., Gieseke, C.M., Miller, R. A., Ward, J., Boehmer, J., Rummel, N., Heller, D. N., Nochetto, C., Hemakanthi de Alwis, G. K., Bataller, N., Andersen, W. C., Turnipseed, S. B., Karbiwnyk, C. M., Satzger, R. D., Crowe, J. B., Wilber, N. R., Reinhard, M. K., Roberts, J. F., Witkowski, M. R. (2008). Evaluation of the renal effects of experimental feeding of melamine and cyanuric acid to fish and pigs. *Am. J. Vet. Res.* 69, 1217–1228.
10. Southern Metropolis Daily. (2008). Sanlu recalls 700 tons of melamine-tainted milk powder. Posted by Eric Mu, September 12, 2008 10:58 AM. China.
11. Thompson, M. E., Lewin-Smith, M. R., Kalasinsky, V. F., Pizzolato, K. M., Fleetwood, M. L., Mcelhaney, M. R., and Johnson, T. O. (2008). Characterization of melamine-containing and calcium oxalate crystals in three dogs with suspected pet food–induced nephrotoxicosis. *Vet. Pathol.* 45, 417-426.
12. Weise, E., and Schmit, J. (2007). FDA limits Chinese food additive imports. *USA Today*. Accessed July 30, 2007. USA.

Hsu CL* (徐晴嵐), DVM; Chiu KH (邱國皓), DVM; Liu CH (劉振軒), DVM, PhD.
School of Veterinary Medicine, National Taiwan University (國立台灣大學獸醫專業學院)

CASE HISTORY:

Signalment: 11-year-old female koala

History:

The koala was poor spirit, weak, less cacation, and abnormal feeding behavior in the morning on August 27. The patient died at 13:50 and necropsy for further diagnosis.

Clinical Pathology:

Physical examination found dysmasesia, tachypnoea with pale oral mucosa and conjunctiva. The blood vessels were collapse and low blood pressure. In X-ray examination, there was spinal rupture, hepatomegaly and ascites.

Gross Findings:

At necropsy, enlargement of multiple lymph nodes were found in the right cervix, bilateral axilla, mandibule, cranial mediastinum, bilateral superficial inguinal, and mesentery. In the liver, it presented larger with dark red, hemorrhage and multiple-nodular mass sized 0.3-1.2 cm. In spleen, multiple white spots and filled with abundant light pink blood in cross section. Enlarge range over 3.3 cm in splenic head. In bilateral kidneys, it showed scant, coalescing white somewhat grayish scattered spots on the surface. Urinary bladder revealed pin-point to patechial hemorrhage on the mucosal surface. Lots of food accumulated in the stomach with mucosal erosion or ulceration with hemorrhage. In the right cervical lymph node was enlargement about 4×2.5×2 cm in size with petechial hemorrhage. Both superficial inguinal lymph node and mesenteric lymph node became larger and swelling about 1×2 cm. 150 mL clear and dark red ascites found in the abdominal cavity with many clots adhesive to the surface of the liver. In cytology, a large amount of lymphoblast-like tumor cell presented in ascites.

Hsu CL* (徐晴嵐), DVM; Chiu KH (邱國皓), DVM; Liu CH (劉振軒), DVM, PhD.
School of Veterinary Medicine, National Taiwan University (國立台灣大學獸醫專業學院)

CASE RESULT:

Histopathological Findings:

Microscopically, all specimens of mass present from involved organs display mainly similar but variable morphological features. T-cell origin leukemia/ lymphoma with systemic involvement includes choroid plexus, heart, liver, lung, spleen, kidney, gastric tract, ovary, uterus, bone marrow, submandibular gland and lymph nodes, axillary lymph node, inguinal lymph node, mesenteric lymph node, and mediastinal lymph node. In the liver, there are a large numbers of tumor cells in central veins, portal triads and parenchyma. Tumor cells arrange in closely packed and infiltrate in parenchyma of organs diffusely. In lymphoid system, the primary or secondary lymphoid follicles replace by lymphocytes as 'effacement'. The tumor cells display round to oval appearances with mostly distinctive cell borders, and eosinophilic, homogeneous and scant cytoplasm. The nuclei of tumor cells present predominately central located and round shape with one to two nucleoli. Mitoses range from 1 to 3 per HPF. Vascular invasion and lymphatic tumor emboli can be easily interpreted. Other organs have similar lesions as liver. In the bone marrow, the normal architecture of bone marrow has been infiltrated in sheets of similar tumor cells. There are also a small number of normal myelocytes and myeloblasts present.

Laboratory Examination:

Ascites-Cytospin machine: About 150 c.c. dark-red ascites were found in the abdominal cavity with large clots adhesive to the surface of the liver. In cytology, large amount of lymphoblast-like tumor cell presented in ascites by cytospin machine.

Immunocytochemistry (ICC): ICC performed revealed strong positive for CD3 (Pan T-cell marker)

Diagnosis:

1. Lymphocytic leukemia/lymphoma, T-cell origin with systemic involvement includes choroid plexus, heart, liver, lung, spleen, kidney, gastric tract, ovary, uterus, bone marrow, submandibular gland and lymph nodes, axillary lymph node, inguinal lymph node, mesenteric lymph node, and mediastinal lymph node
2. Hemochromatosis, moderate, liver.

Comments:

In present case, the morphological pattern and results of immunohistochemistry staining to find out the primitive origin from T cell. Koala is known to suffer from an extremely high incidence of lymphoma. KoRV is an active endogenous retrovirus and suggests that it may be causally linked to neoplastic disease. The main considerations in the differential diagnosis which include lymphoma-like lesion (pseudolymphoma), small cell undifferentiated carcinoma, and metastatic carcinomas lymphoma-like lesions have a mixed cell infiltrate, indicative of a reactive process, and may form germinal centers. Lymphoma-like lesion is more superficial than lymphoma and almost contains polymorphonuclear leukocytes and plasma cells. Lymphoma, in contrast, forms a larger lesion that deeply invades the stroma, often with associated sclerosis, deep perivascular infiltration, and a monomorphic cell population. In order to differentiate these diagnoses and locate the possible origin,

immunohistochemistry staining is performed. Such as positive CD serial markers and confirm origin of lymphoma. A leukemic infiltrate may be difficult to distinguish from a poorly differentiated carcinoma. However, leukemic cells do not have the cohesive quality resulting from cell membrane adherence that characterizes carcinoma.

References:

1. Hanger JJ, Bromham LD, McKee JJ. The Nucleotide Sequence of Koala (*Phascolarctos cinereus*) Retrovirus: a Novel Type C Endogenous Virus Related to Gibbon Ape Leukemia Virus. *Jour Virol* 74: 4264-4272, 2000
2. Kuefer MU, Look AT, Pulford K, Behm FG, Pattengale PK, Mason DY, Morris SW. Retrovirus-mediated gene transfer of NPM-ALK causes lymphoid malignancy in mice. *Blood* 90: 2901-2910, 1997
3. Meuten DJ. Tumors in domestic animals: tumors of the hemolymphatic system: 129-131, Iowa state press, 2002
4. Tarlinton R, Joanne Meers J, Jon Hanger J. Real-time reverse transcriptase PCR for the endogenous koala retrovirus reveals an association between plasma viral load and neoplastic disease in koalas. *J Gen Virol* 86: 783-787, 2005

中華民國比較病理學會章程

第一章 總則

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

第二章 會員

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

不得申請退費。

第三章 組織及職員

第十二條 本會以會員大會為最高權力機構。

第十三條 會員大會之職權如下：

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

前項第八款重大事項之範圍由理事會訂定之。

第十四條 本會置理事十五人，監事五人，由會員選舉之，分別成立理事會、監事會。選舉前項理事、監事時，依計票情形得同時選出候補理事五人，候補監事一人，遇理事或監事出缺時，分別依序遞補之。本屆理事會得提出下屆理事及監事候選人參考名單。

第十五條 理事會之職權如下：

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

第十六條 理監事置常務理事五人，由理事互選之，並由理事就常務理事中選舉一人為理事長。理事長對內綜理監督會議，對外代表本會，並擔任會員大會、理事會主席。理事長因事不能執行職務時，應指定常務理事一人代理之，未指定或不能指定時，由常務理事互推一人代理之。理事長或常務理事出缺時，應於一個月內補選之。

第十七條 監事會之職權如左：

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

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

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

第十九條 理事、監事均為無給職，任期三年，連選得連任。理事長之

連任以一次為限。

第二十條 理事、監事有下列情事之一者，應即解任：

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

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

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

第二十三條 本會得由理事會聘請無給顧問若干人，其聘期與理事、監事之任期同。

第四章 會議

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

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

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

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

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

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

第五章 經費及會計

第二十九條 本會經費來源如下：

- 一、入會費：一般會員新台幣壹仟元，學生會員壹佰元，贊助會員伍仟元，於入會時繳納。
- 二、常年會費：一般會員新台幣五百元，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
第一次至第四十三次比較病理學研討會病例分類一覽表

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

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

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

194	Kasabach-Merrit syndrome	Human	慈濟醫院病理科
195	Metastatic hepatocellular carcinoma, right atrium	Human	新光醫院病理科
197	Papillary fibroelastoma of aortic valve	Human	新光醫院病理科
198	Extraplacental chorioangioma	Human	耕莘醫院病理科
208	Granulocytic sarcoma (Chloroma) of uterine cervix	Human	高雄醫學大學病理學科
210	Primary non-Hodgkin's lymphoma of bone, diffuse large B cell, right humerus	Lymphoma	彰化基督教醫院病理科
213	Lymphoma, multi-centric type	Dog	中興大學獸醫系
214	CD30 (Ki-1)-positive anaplastic large cell lymphoma (ALCL)	Human	新光醫院病理科
215	Lymphoma, mixed type	Koala	台灣大學獸醫學系
217	Mucosal associated lymphoid tissue (MALT) lymphoma, small intestine	Cat	臺灣大學獸醫學研究所
218	Nasal type NK/T cell lymphoma	Human	高雄醫學大學病理科
222	Acquired immunodeficiency syndrome (AIDS) with disseminated Kaposi's sarcoma	Human	慈濟醫院病理科
224	Epithelioid sarcoma	Human	彰化基督教醫院病理科
226	Cutaneous B cell lymphoma, eyelid, bilateral	Human	羅東聖母醫院病理科
227	Extramammary Paget's disease (EMPD) of the scrotum	Human	萬芳北醫皮膚科, 病理科
228	Skin, back, excision, CD30+diffuse large B cell lymphoma, Soft tissue, leg, side not stated, excision, vascular leiomyoma	Human	高雄醫學大學附設醫院病理科
231	Malignant melanoma, metastasis to intra-abdominal cavity	Human	財團法人天主教耕莘醫院病理科
232	Vaccine-associated rhabdomyosarcoma	Cat	台灣大學獸醫學系
233	1. Pleura: fibrous plaque, 2. Lung: adenocarcinoma, 3. Brain: metastatic adenocarcinoma	Human	高雄醫學大學附設中和醫院病理科
235	1. Neurofibromatosis, type I 2. Malignant peripheral nerve sheath tumor (MPNST)	Human	花蓮慈濟醫院病理科
239	Glioblastoma multiforme	Human	羅東聖母醫院
240	Pineoblastoma	Wistar rat	綠色四季
241	Chordoid meningioma	Human	高醫病理科
243	Infiltrating lobular carcinoma of left breast with meningeal carcinomatosis and brain metastasis	Human	花蓮慈濟醫院病理科
245	Microcystic Meningioma.	Human	耕莘醫院病理科

247	Well-differentiated fetal adenocarcinoma without lymph node metastasis	Human	新光吳火獅紀念醫院
249	Adenocarcinoma of lung.	Human	羅東聖母醫院
252	Renal cell carcinoma	Canine	國立台灣大學獸醫學系獸醫學研究所
253	Clear cell variant of squamous cell carcinoma, lung	Human	高雄醫學大學附設中和醫院病理科
256	Metastatic adrenal cortical carcinoma	Human	耕莘醫院病理科
258	Hashimoto's thyroiditis with diffuse large B cell lymphoma and papillary carcinoma	Human	高雄醫學大學附設中和醫院病理科
262	Medullar thyroid carcinoma	Canine	臺灣大學獸醫學系
264	Merkel cell carcinoma	Human	羅東博愛醫院
266	Cholangiocarcinoma	Human	耕莘醫院病理科
268	Sarcomatoid carcinoma of renal pelvis	Human	花蓮慈濟醫院病理科
269	Mammary Carcinoma	Canine	中興大學獸醫學系
270	Metastatic prostatic adenocarcinoma	Human	耕莘醫院病理科
271	Malignant canine peripheral nerve sheath tumors	Canine	臺灣大學獸醫學系
272	Sarcomatoid carcinoma, lung	Human	羅東聖母醫院
273	Vertebra,T12,laminectomy, metastatic adenoid cystic carcinoma	Human	彰化基督教醫院
274	rhabdomyosarcoma	Canine	臺灣大學獸醫學系
275	Fetal rhabdomyosarcoma	SD Rat	中興大學獸醫學系
276	Adenocarcinoma, metastatic, iris, eye	Human	高雄醫學大學
277	Axillary lymph node metastasis from an occult breast cancer	Human	羅東博愛醫院
278	Hepatocellular carcinoma	Human	國軍桃園總醫院
279	Feline diffuse iris melanoma	Feline	中興大學獸醫學系
280	Metastatic malignant melanoma in the brain and inguinal lymph node	Human	花蓮慈濟醫院病理科
281	Tonsil Angiosarcoma	Human	羅東博愛醫院
282	Malignant mixed mullerian tumor	Human	耕莘醫院病理科
283	Renal cell tumor	Rat	中興大學獸醫學系
284	Multiple Myeloma	Human	花蓮慈濟醫院病理科
285	Myopericytoma	Human	新光吳火獅紀念醫院
287	Extramedullary plasmacytoma with amyloidosis	Canine	臺灣大學獸醫學系
288	Metastatic follicular carcinoma	Human	羅東聖母醫院病理科
289	Primitive neuroectodermal tumor (PNET), T-spine.	Human	羅東博愛醫院病理科
292	Hemangioendothelioma of bone	Human	花蓮慈濟醫院病理科
293	Malignant tumor with perivascular epithelioid differentiation, favored malignant PEComa	Human	彰化基督教醫院
297	Mucin-producing cholangiocarcinoma	Human	基隆長庚醫院

細菌	300	Cutaneous epitheliotropic lymphoma	Canine	臺灣大學獸醫專業學院
	301	Cholangiocarcinoma	Felis Lynx	臺灣大學獸醫專業學院
	302	Lymphoma	Canine	臺灣大學獸醫專業學院
	303	Solitary fibrous tumor	Human	彰化基督教醫院
	304	Multiple sarcoma	Canine	臺灣大學獸醫專業學院
	6.	Tuberculosis	Monkey	臺灣大學獸醫學系
	7.	Tuberculosis	Human	省立新竹醫院
	12.	H. pylori-induced gastritis	Human	台北病理中心
	13.	Pseudomembranous colitis	Human	省立新竹醫院
	26.	Swine salmonellosis	Pig	中興大學獸醫學系
	27.	Vegetative valvular endocarditis	Pig	台灣養豬科學研究所
	28.	Nocardiosis	Human	台灣省立新竹醫院
	29.	Nocardiosis	Largemouth bass	屏東縣家畜疾病防治所
	32.	Actinomycosis	Human	台灣省立豐原醫院
	33.	Tuberculosis	Human	苗栗頭份為恭紀念醫院
	53.	Intracavitary aspergilloma and cavitory tuberculosis, lung.	Human	羅東聖母醫院
	54.	Fibrocalcified pulmonary TB, left Apex. Mixed actinomycosis and aspergillosis lung infection with abscess DM, NIDDM.	Human	林口長庚紀念醫院
	58.	Tuberculous enteritis with perforation	Human	佛教慈濟綜合醫院
	61.	Spirochetosis	Goose	國立嘉義農專獸醫科
	63.	Proliferative enteritis (<i>Lawsonia intracellularis</i> infection)	Porcine	屏東縣家畜疾病防治所
	68.	Liver abscess (<i>Klebsillae pneumoniae</i>)	Human	台北醫學院
	77.	1. Xanthogranulomatous inflammation with nephrolithiasis, kidney, right. 2. Ureteral stone, right.	Human	羅東聖母醫院
	79.	Emphysematous pyelonephritis	Human	彰化基督教醫院
	89.	1. Severe visceral gout due to kidney damaged 2. Infectious serositis	Goose	中興大學獸醫學系
	108.	Listeric encephalitis	Lamb	屏東縣家畜疾病防治所
	113.	Tuberculous meningitis	Human	羅東聖母醫院
	134.	Swine salmonellosis with meningitis	Swine	中興大學獸醫學系

	135.	Meningoencephalitis, fibrinopurulent and lymphocytic, diffuse, subacute, moderate, cerebrum, cerebellum and brain stem, caused by Streptococcus spp. infection	Swine	國家實驗動物繁殖及研究中心
	140	Coliform septicemia of newborn calf	Calf	屏東縣家畜疾病防治所
	161	Porcine polyserositis and arthritis (Glasser's disease)	Pig	中興大學獸醫學院
	162	Mycotic aneurysm of jejunal artery secondary to infective endocarditis	Human	慈濟醫院病理科
	170	Chronic nephritis caused by Leptospira spp	Pig	中興大學獸醫學院
	173	Ureteropyelitis and cystitis	Pig	中國化學製藥公司
	254	Pulmonary actinomycosis.	Human	耕莘醫院病理科
	259	Tuberculous peritonitis	Human	彰化基督教醫院病理科
	260	Septicemic salmonellosis	Piglet	屏東科技大學獸醫系
	261	Leptospirosis	Human	慈濟醫院病理科
	267	Mycobacteriosis	Soft turtles	屏東科技大學獸醫系
	290	Staphylococcus spp. infection	Formosa Macaque	中興大學獸醫病理學研究所
	291	Leptospirosis	Dog	台灣大學獸醫學系
	296	Leptospirosis	Human	花蓮慈濟醫院
	305	Cryptococcus and Tuberculosis	Human	彰濱秀傳紀念醫院
病毒	21.	Newcastle disease	Chickens	台灣大學獸醫學系
	22.	Herpesvirus infection	Goldfish	台灣大學獸醫學系
	30.	Demyelinating canine distemper encephalitis	Dog	台灣養豬科學研究所
	31.	Adenovirus infection	Malayan sun bears	台灣大學獸醫學系
	50.	Porcine cytomegalovirus infection	Piglet	台灣省家畜衛生試驗所
	55.	Infectious laryngo-tracheitis (Herpesvirus infection)	Broilers	國立屏東技術學院獸醫學系
	69.	Pseudorabies (Herpesvirus infection)	Pig	台灣養豬科學研究所
	78.	Marek's disease in native chicken	Chicken	屏東縣家畜疾病防治所
	92.	Foot- and- mouth disease (FMD)	Pig	屏東縣家畜疾病防治所
	101.	Swine pox	Pig	屏東科技大學獸醫學系
	110.	Pseudorabies	Piglet	國立屏東科技大學
	112.	Avian encephalomyelitis	Chicken	國立中興大學
	128.	Contagious pustular dermatitis	Goat	屏東縣&台東縣家畜疾病防治所

130.	Fowl pox and Marek's disease	Chicken	中興大學獸醫學系
133.	Japanese encephalitis	Human	花蓮佛教慈濟綜合醫院
136	Viral encephalitis, polymavirus infection	Lory	美國紐約動物醫學中心
138	1.Aspergillus spp. encephalitis and myocarditis 2.Demyelinating canine distemper encephalitis	Dog	台灣大學獸醫學系
153	Enterovirus 71 infection	Human	彰化基督教醫院
154	Ebola virus infection	African Green monkey	行政院國家科學委員會實驗動物中心
155	Rabies	Longhorn Steer	台灣大學獸醫學系
163	Parvoviral myocarditis	Goose	屏東科技大學獸醫學系
199	SARS	Human	台大醫院病理科
200	TGE virus	swine	臺灣動物科技研究所
201	Feline infectious peritonitis(FIP)	Feline	台灣大學獸醫學系
209	Chicken Infectious Anemia (CIA)	Layer	屏東防治所
219	1.Lymph node:Lymphdenitis, with lymphocytic depletion and intrahistiocytic basophilic cytoplasmic inclusion bodies. Etiology consistent with Porcine Circovirus(PCV)infection. 2.Lung: Bronchointerstitial pneumonia,moderate, lymphoplasmacytic, subacute.	Pig	臺灣動物科技研究所
220	Cytomegalovirus colitis	Human	彰化基督教醫院病理科
221	Canine distemper virus Canine adenovirus type II co-infection	Canine	國家實驗動物繁殖及研究中心
223	1. Skin, mucocutaneous junction (lip): Cheilitis, subacute, diffuse, sever, with epidermal pustules, ballooning degeneration, proliferation, and eosinophilic intracytoplasmic inclusion bodies, Saanen goat. 2. Haired skin: Dermatitis, proliferative, lymphoplasmacytic, subacute, diffuse, sever, with marked epidermal pustules, ballooning degeneration, acanthosis, hyperkeratosis, and eosinophilic intracytoplasmic inclusion bodies.	Goat	台灣動物科技研究所
238	Hydranencephaly	Cattle	國立屏東科技大學獸醫學系
248	Porcine Cytomegalovirus (PCMV)	Swine	國立屏東科技大學獸

	infection		醫學系
	250 Porcine respiratory disease complex (PRDC) and polyserositis, caused by co-infection with pseudorabies (PR) virus, porcine circovirus type 2 (PCV 2), porcine reproductive and respiratory syndrome (PRRS) virus and <i>Salmonella typhimurium</i> .	Swine	屏東縣家畜疾病防所
	255 Vaccine-induced canine distemper	gray foxes	國立台灣大學獸醫學系
	265 Bronchointerstitial pneumonia (PCV II infection)	Swine	台灣大學獸醫學系
	295 Feline infectious peritonitis (FIP)	Cat	中興大學獸醫病理所
黴菌	23. Chromomycosis	Human	台北病理中心
	47. Lung: metastatic carcinoma associated with cryptococcal infection. Liver: metastatic carcinoma. Adrenal gland, right: carcinoma (primary)	Human	三軍總醫院
	48. Adiaspiromycosis	Wild rodents	台灣大學獸醫學系
	52. Aspergillosis	Goslings	屏東縣家畜疾病防治所
	53. Intracavitary aspergilloma and cavitary tuberculosis, lung.	Human	羅東聖母醫院
	54. Fibrocalcified pulmonary TB, left Apex. Mixed actinomycosis and aspergillosis lung infection with abscess DM, NIDDM.	Human	林口長庚紀念醫院
	105. Mucormycosis Diabetes mellitus	Human	花蓮佛教慈濟綜合醫院
	127. Eumycotic mycetoma	Human	花蓮佛教慈濟綜合醫院
	138 1.Aspergillus spp. encephalitis and myocarditis 2.Demyelinating canine distemper encephalitis	Dog	台灣大學獸醫學系
	298 Systemic Candidiasis	Tortoise	中興大學獸醫學院
寄生蟲	14. Dirofilariasis	Dog	台灣省家畜衛生試驗所
	15. Pulmonary dirofilariasis	Human	台北榮民總醫院
	20. Sparganosis	Human	台北榮民總醫院
	46. Feline dirofilariasis	Cat	美國紐約動物醫學中心
	49. Echinococcosis	Human	台北榮民總醫院
	60. Intestinal capillariasis	Human	台北馬偕醫院
	64. 1.Adenocarcinoma of sigmoid colon	Human	省立新竹醫院

		2.Old schistosomiasis of rectum		
	66.	Echinococcosis	Chapman's zebra	台灣大學獸醫學系
	67.	Hepatic ascariasis and cholelithiasis	Human	彰化基督教醫院
	106.	Parasitic meningoencephalitis, caused by Toxocara canis larvae migration	Dog	臺灣養豬科學研究所
	139	Disseminated strongyloidiasis	Human	花蓮佛教慈濟綜合醫院
	141	Eosinophilic meningitis caused by Angiostrongylus cantonensis	Human	台北榮民總醫院病理檢驗部
	156	Parastrongylus cantonensis infection	Formosan gem-faced civet	中興大學獸醫學院
	157	Capillaria hepatica, Angiostongylus cantonensis	Norway Rat	行政院農業委員會農業藥物毒物試驗所
	202	Colnorchiasis	Human	高雄醫學院附設醫院
	203	Trichuriasis	Human	彰化基督教醫院
	204	Psoroptes cuniculi infection (Ear mite)	Rabbit	農業藥物毒物試驗所
	205	Pulmonary dirofilariasis	Human	和信治癌中心醫院
	206	Capillaries philippinesis	Human	和信治癌中心醫院
	207	Adenocarcinoma with schistosomiasis	Human	花蓮佛教慈濟綜合醫院
	286	Etiology- consistent with <i>Spironucleus (Hexamita) muris</i>	Rat	國家實驗動物繁殖及研究中心
原蟲	4.	Cryptosporidiosis	Goat	台灣養豬科學研究所
	15.	Amoebiasis	Lemur fulvus	台灣養豬科學研究所
	16.	Toxoplasmosis	Squirrel	台灣養豬科學研究所
	17.	Toxoplasmosis	Pig	屏東技術學院獸醫學系
	51.	Pneumocystis carinii pneumonia	Human	台北病理中心
	57.	Cecal coccidiosis	Chicken	中興大學獸醫學系
	65.	Cryptosporidiosis	Carprine	台灣養豬科學研究所
	211	Avian malaria, African black-footed penguin	Avian	臺灣動物科技研究所
	242	Neosporosis	Cow	國立屏東科技大學獸醫學系
	263	Intestinal amebiasis	Human	彰化基督教醫院病理科
立克次體	229	Necrotizing inflammation due to scrub typhus	Human	佛教慈濟醫院病理科
	251	Scrub typhus with diffuse alveolar damage in bilateral lungs.	Human	佛教慈濟醫院病理科
皮膚	216	Cytophagic histiocytic panniculitis with terminal hemophagocytic syndrome	Human	佛教慈濟綜合醫院病理科

其它	9.	Perinephric pseudocyst	Cat	台灣大學獸醫學系
	10.	Choledochocyst	Human	長庚紀念醫院
	11.	Bile duct ligation	Rat	中興大學獸醫學系
	37.	Myositis ossificans	Human	台北醫學院
	75.	Acute yellow phosphorus intoxication	Rabbits	中興大學獸醫學系
	76.	Polycystic kidney bilateral and renal failure	Cat	美國紐約動物醫學中心
	151	Osteodystrophia fibrosa	Goat	台灣養豬科學研究所 & 台東縣家畜疾病防治所
	80.	1.Glomerular sclerosis and hyalinosis, segmental, focal, chronic, moderate 2.Benign hypertension	SHR rat	國防醫學院 & 國家實驗動物繁殖及研究中心
	83.	Phagolysosome-overload nephropathy	SD rats	實驗動物繁殖中心
	85.	Renal amyloidosis	Dog	台灣養豬科學研究所
	89.	1.Severe visceral gout due to kidney damaged 2.Infectious serositis	Goose	中興大學獸醫學系
	91.	Hypervitaminosis D	Orange-rumped agoutis	台灣大學獸醫學系
	118.	Cystic endometrical hyperplasia	Dog	臺灣養豬科學研究所
	121.	Cystic subsurface epithelial structure (SES)	Dog	國科會實驗動物中心
	124.	Superficial necrolytic dermatitis	Dog	美國紐約動物醫學中心
	125.	Solitary congenital self-healing histiocytosis	Human	羅東博愛醫院
	126.	Alopecia areata	Mouse	實驗動物繁殖及研究中心
	142	Avian encephalomalacia (Vitamin E deficiency)	Chicken	國立屏東科技大學獸醫學系
	159	Hypertrophic cardiomyopathy	Pig	台灣大學獸醫學系
	165	Chinese herb nephropathy	Human	三軍總醫院病理部及腎臟科
	167	Acute pancreatitis with rhabdomyolysis	Human	慈濟醫院病理科
	171	Malakoplakia	Human	彰化基督教醫院
	183	Darier's disease	Human	高雄醫學大學病理科
	191	1. Polyarteritis nodosa 2. Hypertrophic Cardiomyopathy	Feline	台灣大學獸醫學系
	193	Norepinephrin cardiotoxicity	Cat	台中榮總
	196	Cardiomyopathy (Experimental)	Mice	綠色四季
	212	Kikuchi disease (histiocytic necrotizing lymphadenitis)	Lymphadenitis	耕莘醫院病理科
	225	Calcinosis circumscripta, soft tissue of	Dog	台灣大學獸醫所

	the right thigh, dog		
230	Hemochromatosis, liver, bird	Bird	台灣大學獸醫學系
234	Congenital hyperplastic goiter	Holstein calves	屏東縣家畜疾病防治所
236	Hepatic lipidosis (fatty liver)	Rats	中興大學獸醫學病理學研究所
237	Arteriovenous malformation (AVM) of cerebrum	Human	耕莘醫院病理科
244	Organophosphate induced delayed neurotoxicity in hens	Hens	中興大學獸醫學病理學研究所
257	Severe lung fibrosis after chemotherapy in a child with Ataxia-Telangiectasia	Human	慈濟醫院病理科
294	Arteriovenous malformation of the left hindlimb	Dog	台灣大學獸醫學系
299	Polioencephalomalacia	Goat kid	屏東家畜疾病防治所

會員資料更新服務

各位會員：

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

中華民國比較病理學會秘書處
10617 臺北市大安區羅斯福路四段 1 號
國立臺灣大學獸醫系三館 106 室 蕭世烜秘書長 收
Tel: (02) 33663858
Fax: (02) 23682423
e-mail address: shsiao1@ntu.edu.tw

-----中華民國比較病理學會-----

會員資料更改卡

姓 名：_____ 會員類別：☐一般會員
☐學生會員
☐贊助會員

最高學歷：_____

服務單位：_____ 職 稱：_____

永久地址：_____

通訊地址：_____

電 話：_____ 傳 真：_____

E-Mail Address：_____

中華民國比較病理學會

誠摯邀請您加入

入 會 辦 法

一、本會會員申請資格為：

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

二、會員：

- (一) 入 會 費：一般會員新台幣一仟元，學生會員一百元，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，學生會員一百元。
- 【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、請填妥入會申請表郵寄或傳真方式寄回中華民國比較病理學會秘書處收。

地址：10617 臺北市大安區羅斯福路四段 1 號 國立臺灣大學獸醫系三館 106 室
蕭世烜秘書長 收
電話：02-33663858、傳真 02-23682423。

中華民國比較病理學會入會申請及會員卡

會籍電腦編號

姓名	中文		性別 男 <input type="checkbox"/> 女 <input type="checkbox"/>	出生	民國	年	月	日	出生地	省 縣/市	
	英文			身分證字號							
			會員身份: <input type="checkbox"/> 一般 <input type="checkbox"/> 學生 <input type="checkbox"/> 贊助								
學歷	(1)				稱謂(請圈選) 先生 小姐 醫師 獸醫師						
					研究員 博士 教授 主任 其他: _____						
	(2)				研究興趣	(1)					
	(3)					(2)					
	(4)					(3)					
主要經歷	機關名稱		職務		起			止			
					年 月			年 月			
					年 月			年 月			
					年 月			年 月			
現職					年 月			年 月			
<p>通訊地址: 現在 電話: 傳真:</p> <p>永久 電話: 傳真:</p> <p>電子郵件(E-mail)地址:</p>											
<p>茲 贊 同</p> <p>貴會宗旨擬加入為會員嗣後並願遵守一切規章共圖發展</p> <p>此 致</p> <p>中華民國比較病理學會</p> <p>申請人 簽章</p> <p>介紹人 簽章</p> <p>介紹人 簽章</p> <p>中華民國 年 月 日</p>									審核結果		