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中華民國比較病理學會九十一年度第二十五次比較病理學研
討會
皮膚病理專題

議 程 表

時間：中華民國九十一年七月七日（星期日） 上午 08：30~下午 15：10
地點：國立台灣大學農學院附設動物醫院會議室 地址：台北市基隆路三段 153 號
主辦單位：中華民國比較病理學會
協辦單位：國立台灣大學農學院附設動物醫院

時 間	議	程
08：30—09：00		報到
09：00—09：10		開幕致詞
	Section 【1】	
09：10—09：30	Case 183	高雄醫學大學病理科 /王勝嵐
09：30—09：50	Case 184	臺灣大學獸醫學系 /張惠雯
09：50—10：30	休息（茶點）	
10：30—10：50	Case 185	彰化基督教醫院 /林岳民
10：50—11：10	Case 186	中興大學獸醫病理研究所/ 林正忠
11：10—11：30	Case 187	耕莘醫院 /呂福江
11：30—14：00	午餐（中華民國比較病學會理監事聯席會議） 理	
	Section 【2】	
14：00—14：20	Case 188	台灣動物科學研究所 /楊清文
14：20—14：40	Case 189	慈濟醫院 /楊子孟
14：40—15：10	綜合討論	

**中華民國比較病理學會第二十五次比較病理學研討會
(皮膚病理專題)**

病 歷 摘 要

Case 183 高雄醫學大學病理科：KMU01-17157

A 52-year-old male was suffered from greasy, crusted, yellow-brown papules and plaques on his scalp, forehead, face and anterior chest with pain and itching since he was six years old. There were no vesicles, pustules nor target lesions. The above symptoms and signs were exacerbated by sun exposure or mechanical trauma. He ever visited dermatological OPD and received conservative treatment. The patient also had a 30 year-history of bipolar I psychiatric disorder. No family history of similar skin lesion or psychiatric disorder was detected.

Unfortunately, he got a traffic accident 5 years ago, and then hyperkeratotic, erythematous, maculopapular, crusting plaques developed on the traumatic wounds of bilateral lower legs. The lesions got worse and more numerous and the symptom of pain and itching was obvious. The signs and symptoms were not alleviated by conservative treatments. So, he visited our hospital (Department of Plastic and Reconstructive Surgery) and an operation of full-thickness skin graft and slit-thickness skin graft was performed.

Case 184 臺灣大學獸醫學系：CR02-46

Masses were found around tailbone of a 6-year-old male feline.

Case 185 彰化基督教醫院：98-2706

A 53-year-old woman sought medical attention for a right thigh nodule which had been gradually growing for 3 months. Cutaneous examination showed an ill-defined mass with no associated tenderness, skin rash or regional lymphadenopathy. Laboratory studies in the annual physical checkup, 4 months prior to the development of symptoms, were all within normal limits. White count was 4690. Differential count was not performed. She was a resident of Chang-Hua city and worked at a shoe factory. The nodule was resected with the impression that was a lipoma on 2 February 1998. The patient denied the use of animal poultice or the ingestion of raw flesh.

Case 186 中興大學獸醫病理研究所：CO99-7206-5

Female mixed breed dog, 3 years old, was submitted from Taichung city livestock disease control center.

Case 187 耕莘醫院病理科：172522

An 85 year-old female suffered from a large rapidly enlarging facial tumor around nasal base for 2 months. Grossly, it showed an erythematous nodular tumor. Wide excision specimen showed a large gray necrotic tumor of 3 × 2.2 × 1.3 cm in size.

Case 188 台灣動物科學研究所：P02-041C

A female native 3 months old growing pig was complained with systemic papular dermatopathy by the owner, especially on the belly and thigh were more prominent. Other clinical signs included anorexia, slightly fever and reluctant to move. The morbidity was high (8/8) but none of the sick pigs was formed dead. The pig was euthanized for pathological examination.

Case 189 慈濟大學醫學系：S2002-02938A

A 76 year-old male patient admitted to our ward due to fever and chillness on 1st Mar., 2001. Leukocytosis with abnormal immature blast cells in peripheral blood was also noted in routine CBC. Then he was transferred to hematology ward, and bone marrow punch biopsy was done. The diagnosis of bone marrow biopsy was AML. After chemotherapy, a parietal wound developed since Sep., 2001. The wound start to bleed without clotting later, and he came to our PS ward for help on 15th Nov., 2001. The slide was a biopsy specimen from the parietal wound.

Comparative Pathology Case 183

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Clinical History:

A 52-year-old male was suffered from greasy, crusted, yellow-brown papules and plaques on his scalp, forehead, face and anterior chest with pain and itching since he was six years old. There were no vesicles, pustules nor target lesions. The above symptoms and signs were exacerbated by sun exposure or mechanical trauma. He ever visited dermatological OPD and received conservative treatment. The patient also had a 30 year-history of bipolar I psychiatric disorder. No family history of similar skin lesion or psychiatric disorder was detected.

Unfortunately, he got a traffic accident 5 years ago, and then hyperkeratotic, erythematous, maculopapular, crusting plaques developed on the traumatic wounds of bilateral lower legs. The lesions got worse and more numerous and the symptom of pain and itching was obvious. The signs and symptoms were not alleviated by conservative treatments. So, he visited our hospital (Department of Plastic and Reconstructive Surgery) and an operation of full-thickness skin graft and slit-thickness skin graft was performed.

Diagnosis:

Darier's disease (keratosis follicularis)

Gross Findings:

The skin lesion of right lower leg measured 6.5x4.5x0.3 cm in size. Grossly, there were numerous greasy, crusted and yellow-brown papules, measuring up to 3.5x2.0 cm in size. Besides, the skin lesion of left lower leg measured 12x2.1x0.5 cm in size. Grossly, hyperkeratotic, crusted, yellow-brown papules were found also. There were no vesicle, pustules, ulcer nor target lesions.

Histopathological Findings:

Sections showed a peculiar form of dyskeratosis resulting in the formation of corps ronds and grains, suprabasal acantholysis leading to the formation of suprabasal clefts or lacunae and irregular upward proliferation into the lacunae of papillae lined with a single layer of basal cells, so-called villi. Hyperkeratosis, acanthosis and papillomatosis were also present. The upper dermis revealed chronic inflammatory reaction.

Discussion:

Darier's disease is an uncommon hereditary disorder, usually transmitted by an autosomal dominant pattern, maybe occur as a mutation. There is a more or less extensive, persistent, slowly progressive eruption consisting of hyperkeratotic or crusted papules or verrucous lesions often showing a follicular distribution. The so-called seborrheic areas are the sites of predilection. It usually begins in the first or second decade of life and is found in equivalent numbers among men and women. It is a rare condition, affecting one person in 100000. Darier's disease is frequently worse in the summer when it is exacerbated by heat, humidity, ultraviolet B light, and mechanical trauma. The mucous membranes of the mouth, pharynx, esophagus, and female genitalia may also be affected. The progressive skin

manifestations are variable, but often debilitating and disfiguring and may be associated with a wide range of neuropsychiatric problems, such as affective disorder, mental retardation. Spontaneous remissions are rare and in majority of patients, the disease persists throughout life.

The cause of Darier's disease has recently been shown to be mutations in ATP2A2 gene, which was mapping to chromosome 12q23-q24.1, encodes the sarcoplasmic/endoplasmic reticulum calcium ATPase (SERCA2) and disclose a role for this pump in a Ca^{2+} -signalling pathway regulating cell to cell adhesion and differentiation of the epidermis. A number of clinical studies have described the co-occurrence of various neurological and psychiatric symptoms with Darier's disease, including mood disorders, epilepsy, mental retardation and a slowly progressive encephalopathy. Recent linkage studies suggest the existence of a bipolar susceptibility gene on chromosome 12q23-q24.1 in the region of the Darier's disease(DAR)gene. Some studies were done and supported the hypothesis that the DD gene had pleiotropic effects in brain and that mutations in SERCA2 were implicated in the pathogenesis of neuropsychiatric disorder. Other studies showed that neuropsychiatric features did not appear to be associated with a specific class of mutation and might be an intrinsic, but inconsistent, effect of defective ATP2A2 expression.

Conditions to consider in the differential diagnosis include epidermolytic hyperkeratosis, isolated keratosis follicularis(warty dyskeratoma), Hailey-Hailey disease, transient acantholytic dermatosis, pemphigus vulgaris, and focal acantholytic dyskeratosis.

Diagnostic Criteria:

1. Suprabasal acantholysis leading to the formation of suprabasal clefts or lacunae
2. Irregular upward proliferation into the lacunae of papillae lined with a single layer of basal cells, so called villi
3. Peculiar form of dyskeratosis resulting in the formation of corp ronds and grains

References:

1. Jacobsen N J, Lyons I, Hoogendoorn B, et al: ATP2A2 mutations in Darier's disease and their relationship to neuropsychiatric phenotypes. Hum Mol Genet. 8(9):1631-6, 1999 Sep
2. Ringpfeil F, Raus A, DiGiovanna JJ, et al: Darier's disease-novel mutations in ATP2A2 and genotype-phenotype correlation. Exp Dermatol.10(1):19-27, 2001 Feb
3. Dhitavat J, Dode L, Leslie N, et al: Effects of mutations in ATP2A2 on calcium transport across sarco/endoplasmic reticulum(ER) membrane. J Invest Dermatol. 117(3): 764-820, 2001 Sep
4. Ruiz-Perez VL, Carter SA, Healy E, et al: ATP2A2 mutations in Darier's disease. Hum Mol Genet. 8(9): 1621-30, 1999 Sep
5. Franks E, Guy C, Jacobsen N, et al: Eleven trinucleotide repeat loci that map to chromosome 12 excluded from involvement in the pathogenesis of bipolar disorder. Am J Med Genet. 88(1):67-70, 1999 Feb
6. Sakuntabhai A, Ruiz-Perez V, Carter S, et al: Mutations in ATP2A2, encoding a Ca^{2+} pump, cause Darier's disease. Nat Genet. 21(3):271-277, 1999 Mar
7. Tavadia S, Mortimer E, Munro C: genetic epidemiology of Darier's disease: a population study in the west of Scotland. Br J Dermatol. 146:107-109, 2002
8. Jacobsen NJ, Franks EK, Elvidge G, et al: Exclusion of the Darier's disease gene, ATP2A2, as a common susceptibility gene for bipolar disorder. Mol Psychiatry. 6(1):92-97, 2001 Jan
9. Mei S, Amato L, Gallerani I, et al: A case of vesiculo-bullous Darier's disease associated with bipolar psychiatric disorder. J Dermatol. 27(10):673-676, 2000 Oct
10. Burge S: management of Darier's disease. Clin Exp Dermatol. 24(2):53-56, 1999 Mar

Comparative Pathology Case 184

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Clinical history:

Case 1 (CR02-46): Masses were found around tailbone of a 6-year-old male Persian cat.
Case 2: Soft masses about 3x2x1cm in size were noted on the back and tail of a 4.5 -year-old male Persian cat.

The masses were excised and submitted for histopathological evaluation.

Diagnosis:

Feline dermatophytic pseudomycetoma

Gross Finding:

The masses were firm but slightly fluctuant. Larger nodules were ulcerated and discharged a seropurulent to granular exudate. Incision showed multiple to coalescent nodules containing yellow-brown granules.

Histopathological Finding:

The masses are located in the deep dermis and well demarcated from the underlying muscular layer by some fibrous tissue. The masses are characterized by marked multifocal to coalescent infiltration of neutrophils, macrophages, epithelioid cells, lymphocytes, and multinucleated giant cells with centrally accumulated dense aggregates of poorly stained fungal elements. Fungal arthrospores are noted in the hair follicles and the stratum with some neutrophils, lymphocytes and macrophages infiltration. The fungi show prominent size and shape variations in the hyphae and contain spheroid-shaped dilation. Periodic acid-Schiff and Gomori methenamine silver nitrate stains both demonstrate the mycelial nature of the filament.

Discussion:

Dermatophytic pseudomycetoma is a recognized entity in Persian cats. Although both the cases were not cultured for fungal organisms, *Microsporum canis* has been obtained in the majority of reported cases of this condition and is also considered the most likely etiologic agent in both cases based on the specific breed affected and the characteristics of the lesion and fungal elements.

The three most common dermatophytes to infect cats are *Microsporum canis*, *Trichophyton mentagrophytes*, and *Microsporum gypseum*, with *M. canis* responsible for 99% of the infections. Dermatophytic pseudomycetomas are most commonly caused by *M. canis*, but *Trichophyton* sp. also has been isolated. Normally, dermatophytes are restricted to the nonviable keratin layers of the skin and hair. Dermatophytes may also cause folliculitis or furunculosis; the presence of dermatophytes within hair shafts of furunculosis lesions, as seen in kerion, should not be confused with pseudomycetomas. Pseudomycetomas may originate by dermal invasion from infected hair follicles, or subsequent to traumatic implantation of infected hairs. Regional lymphadenopathy may be present, but systemic spread has not been reported.

Dermatophytes induce both humoral and cell-mediated immune response in the host.

Chronic refractory infections may represent an abnormal immune response to the organism. The development of blocking antibodies which inhibit the cell-mediated immune response to the dermatophyte has been proposed as a possible mechanism in the development of the lesions. The breed predilection has led to speculation that a selective immunodeficiency may play a role in the pathogenesis of this lesion. Dermatophytes invade hosts when their state is suitable for the production of their pathogenicity. When the host's resistance is reduced, the prevalence of dermatophytoses can be extremely high or the symptomatology can be very unusual. It is suspected that perhaps dermatophytic pseudomycetoma develop in such situations.

There are some considerations for the differentiation of a mycetoma from a pseudomycetoma. According to Ajello, Kaplan and Chandler, there are fundamental differences between the granules of the eumycotic mycetomas and the mycelial aggregates formed by the dermatophytes. The salient points of difference are summarized as follows:

1. "There is general absence of a development sequence of granule formation in the eumycotic mycetomas in contrast to a sequential development ranging from individual mycelial filaments to small clusters of filaments, and, finally, to large aggregates of mycelium in pseudogranules produced by the dermatophytes. [Sequential development of granules in mycetomas has not been reported in the mycetoma literature.]"
2. "Striking and abundant Splendore-Hoeppli reaction material surrounds the pseudogranules in all stages of development in contrast to varying amounts or absence of such precipitate in the eumycotic granules."
3. "Mycelium of the pseudogranules is less abundant and not as intricately interwoven and compact as in the eumycotic granules."
4. "Cement is not present in the pseudogranules; it may or may not, depending upon the etiologic agent, be present in the granules of the eumycotic mycetomas."
5. "The pseudogranules of the dermatophytes appear to have an endogenous origin with mycelial elements entering the dermis through a break in the follicular epithelium."

Dermatophytic pseudomycetoma also reported in canine and human. *Microsporum canis* is identified in two reported canine dermatophytic pseudomycetomas. In human, the lesion is rare and the most common site of infection is the scalp, particularly the occipital region. Between 1973 and 2001, there were thirteen human cases reported in the literature within which was from Taiwan. Most cases of this rare form of dermatophyte infection were reported in young black individuals from tropical areas. *Trichophyton. schoenleinii*, *T. rubrum*, *T. soudanense*, *M. ferrugineum*, *M. audouinii*, *M. langeronii*, and *M. canis* were the causative agents of those lesions. The fungus *T. tonsurans* was also identified from a recently reported case in 2001. The pathogenesis of pseudomycetoma of the scalp is not clear. Direct self-inoculation the microorganism into scratches has been suggested. Most reported cases have failures of antifungal treatment with favorable outcomes only being obtained after surgery.

Reference:

1. Abramo F, Vercelli A, Mancianti F. Two cases of dermatophytic pseudomycetoma in the dog: an immunohistochemical study. *Vet Dermatol* 12: 203-7, 2001.
2. Ajello L, Kaplan W, Chandler FW: Dermatophyte mycetomas: fact or fiction? In: *Proceedings, 5th International Conference on Mycoses, Pan Am Health Organ Sci Publ* 396: 135-40, 1980.
3. Bond R, Pocknell AM, Tozet CE. Pseudomycetoma caused by *Microsporum canis* in a Persian cat lack of response to oral terbinafine. *J Small Anim Pract* 42: 557-60, 2001.

4. Botterel F, Romand S, Cornet M, Recanatì G, Dupont B, Bouree P. Dermatophyte pseudomycetoma of the scalp: case report and review. *Br J Dermatol* 145: 151-3, 2001.
5. Chen AW, Kuo JW, Chen JS, Sun CC, Huang SF. Dermatophyte pseudomycetoma: a case report. *Br J Dermatol* 129: 729-32, 1993.
6. Jubb KVF, Kennedy PC, Palmer N (Eds.). *Pathology of Domestic Animals*, 4th edition. Academic Press Inc., Vol. 1, pp. 666-7, 1993.
7. Moraes MA, Machado AA, Medeiros Filho P, Reis CM. Dermatophytic pseudomycetoma: report of a case caused by *Trichophyton tonsurans*. *Rev Soc Bras Med Trop* 34: 291-4, 2001
8. Vanbreuseghem R. Opportunism in dermatophytes. *Dermatologica* 159: 4-17, 1979.

Comparative Pathology Case 185

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History:

A 53-year-old woman sought medical attention for a right thigh nodule which had been gradually growing for 3 months. Cutaneous examination showed an ill-defined mass with no associated tenderness, skin rash or regional lymphadenopathy. Laboratory studies in the annual physical checkup, 4 months prior to the development of symptoms, were all within normal limits. White count was 4690. Differential count was not performed. She was a resident of Chang-Hua city and worked at a shoe factory. The nodule was resected with the impression that was a lipoma on 2 February 1998. The patient denied the use of animal poultice or the ingestion of raw flesh.

Diagnosis: Subcutaneous Sparganosis

Gross Finding:

The specimen excised from the lesion consisted of a fibroadipose tissue measuring 1.5 x 1.2 cm. with a sinus tract surrounded by a rim of necrotic tissue.

Histopathological Finding:

The specimen consists of a fibroadipose tissue with a sinus tract surrounded by a rim of necrotic tissue and variable numbers of lymphocytes, eosinophils, macrophages and plasma cells. A fragmented sparganum dissociated from the tissue was observed, which comprised two well-defined areas: the living body wall and parenchyma. The body wall was composed of a thick eosinophilic tegument with microvilli, two layers of smooth muscle and a row of tegumental cells. The parenchyma contained loose stroma, cystic fluid-filled spaces, scattered calcareous bodies, mesenchymal fibers and smooth muscle. No internal organs, suckers or hooklets were found.

Discussion:

Human sparganosis is found worldwide, particularly in China, Japan and southeast Asia. There are two forms of human sparganosis: nonproliferative and proliferative. Nonproliferative sparganosis is caused by plerocercoid larva of *Spirometra mansonii* or *Spirometra mansonioides*. *S. mansonii* accounts for the majority of human infection in Asia, whereas, *S. mansonioides* seems to be more prevalent in the United States^M. Proliferative sparganosis is an extremely rare form of human sparganosis caused by *S. proliferum*.

Humans become infected in three possible ways: 1. by drinking water containing infected Cyclops; 2. by ingesting raw or undercooked flesh of infected secondary intermediate hosts (fish, snakes or frogs); or 3. by applying the raw flesh of infected secondary intermediate host (as a poultice) to an open wound, eye or vagina, allowing the sparganum to crawl into human tissue. The human may thus act as a second or third intermediate host.

The diagnosis of sparganosis was rarely made until the lesion was excised and sparganum was identified. Sparganum can be visualized during excision, a white, flat, thread-like worm measuring 0.1 cm in diameter and several millimeters to 50 cm in length.

Microscopically, the sparganum is a cestode larva with a tegument of 5 to 15 μm , shallow bothrium, loose connective tissue stroma containing varying number of calcareous bodies. The calcareous bodies are intracellular accumulation of mineral proteins and polysaccharides. They are characteristic of cestodes but are not always present in sparganum. The absence of scoleces, suckers or hooklets distinguishes *Spirometra* from other tapeworm larvae, especially the genus *Taenia*: *coenurus* and *cysticercus*.

For nonproliferative sparganosis, excision of the entire sparganum is considered curative. Residual segments of the sparganum, due to incomplete removal, can continue to survive. Antiparasitic therapy is usually unsatisfactory. Follow-up is required to rule out potential concomitant visceral or cerebral sparganosis.

Diagnostic Criteria:

The distinct histologic feature is the presence of the parasite in a tunnel or cystic cavity, which is lined by fibrous and granulomatous tissue. The characteristic microscopic features of a sparganum are its three-layered body wall, consisting of the integument, musculature, and tegumental cells, and its organless, loose parenchyma. The bothrium can be identified as a hypercellular invagination.

Referances:

1. Carroll CL, Connor DH: Sparganosis. In Pathology of infectious diseases, (Connor DH, Chandler FW, Schwartz DA eds.), Appleton & Lange, Stamford, Connecticut, 1st ed.: 1559-1565, 1997.
2. Suemori S: Bulbar conjunctival abscess by sparganum. J Formosan Med Assoc 225: 615, 1922.
3. Naritomi C: Sparganum mansonii in ocular region. J Formosan Med Assoc 31: 965-966, 1932.
4. Tsai WF: A case report of ocular sparganosis. J Formosan Med Assoc 69: 641, 1970.
5. Chen CW, Chou HW: A case of ocular sparganosis. Transa Ophthal Soc ROC 10:123-127, 1971.
6. Wang LT, Cross JH: Human sparganosis on Taiwan. J Formosan Med Assoc 73:173-177, 1974.
7. Chen TY, Cross JH: Subcutaneous sparganosis: a case report. J Formosan Med Assoc 74: 515-516, 1975.
8. Lin TP, Su IJ, Lu SC, Yang SP: Pulmonary proliferating sparganosis: a case report. J Formosan Med Assoc 77: 467-472, 1978.
9. Liao SW, Lee TS, Shih TP, Ho WL, Chen ER: Proliferating sparganosis in lumbar spine: a case report. J Formosan Med Assoc 83: 603-611, 1984.
10. Lo KY, Chao D, Yan SH: Spinal cord proliferative sparganosis in Taiwan: a case report. Neurosurgery 21: 235-238, 1987.
11. Huang YC, Kuan YZ, Chung WC: Subcutaneous sparganosis: a case report. Derm Sinica 5: 183-188, 1987.
12. Lin KC, Chen MT, Chung WC: Human sparganosis: case report. Chinese J Parasitology 4: 119, 1991.
13. Huang KP, Shih CC, Chen ER, Fang PC, Huang L, Lee RF: Orbital sparganosis: a case report. Chinese J Parasitology 5: 102, 1992.
14. Tsai MD, Chang CN, Ho YS, Wang AD: Cerebral sparganosis diagnosed and treated with stereotatic technique: report of two cases. J Neurosurg 78: 129-132, 1993.
15. Tsou MH, Huang TW: Pathology of subcutaneous sparganosis: report of two cases. J Formosan Med Assoc 92: 649-653, 1993.
16. Ash LR, Orihel TC: Atlas of human parasitology. American Society of Clinical Pathologists Press, Chicago, 3rd ed.: 236-239, 1990.

Comparative Pathology Case 186

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History:

Female mixed breed dog, 3 years old, was submitted from Taichung city livestock disease control center.

Diagnosis: Demodicosis and scabies, dog.

Gross Findings:

Alopecia, erythematous macules, papules, and crusts were observed on some region of body and excoriations were seen at some focal lesion. The crusts were brownish color and very thick.

Histopathological Findings:

Many scabies mites located in the superficial epidermis and the stratum corneum, and focal parakeratotic hyperkeratosis was present. Numerous demodex segments and keratinous debris were found in hair follicles. Some inflammatory cells (neutrophils, lymphocytes, plasma cells and macrophages) infiltrated in the epithelium.

Discussion:

Demodicosis was an inflammatory parasitic disease mainly caused by the mite *Demodex canis*. These diseases were characterized by the increasing numbers of *D. canis* in the skin. *D. canis* was part of the normal fauna of canine skin and was present in small numbers in most healthy dogs. The disease might be due to a genetic or immunologic disorder. From eggs to eight-legged adults, four stages of *D. canis* might be found in skin scrapings. Demodicosis was more common in purebred dogs, such as Shar pei, West Highland white terrier, Scottish terrier, English bulldog, etc. Transmission was by direct contact. Demodicosis have three types: localized demodicosis, generalized demodicosis and demodectic pododermatitis. Localized demodicosis occurred as one to several small, circumscribed, erythematous, scaly nonpruritic to pruritic areas of alopecia, most common on the face (especially the periocular area and the commissures of the mouth) and the forelegs. The course was benign and most cases occurred at 3 to 6 months of age and resolved spontaneously. Generalized demodicosis covered large areas or entire body (e.g., facial area). In general, 6 or fewer localized lesions indicated localized demodicosis, and 12 or more was generalized demodicosis. Generalized demodicosis occurred in dogs between 2 to 5 years old, and most dogs had chronic skin diseases. In Demodectic pododermatitis, lesions were only present on the feet, whether the dog had generalized demodicosis that healed. Canine scabies was a non-seasonal, intensely pruritic, transmissible infestation of the skin of dogs caused by the mite *Sarcoptes scabiei* var. *canis*. Any lesions that occur resolve spontaneously. Mites were most common on the skin with little hair such as ears, elbows, abdomen and hocks. Scabies mites have hosts of preference but can cause disease in other species. When they were on the aberrant host, they usually remained for only few days. Canine scabies typically involved the ventral portion of the abdomen, the chest and the legs. The disease spread rapidly and could involve entire body, but the dorsum is usually spared. Gross lesions included erythematous macules, papules,

crusts and excoriations. Typically, they had thick yellowish crusts, and the intense and constant itching soon produced extensive excoriation

Diagnostic criteria:

1. Skin scraping was the method to diagnosis these two parasitic skin diseases.
2. In demodicosis, large numbers of adult mites or increased ratio of immature forms (ova, larvae, and nymphs) could be found in skin scrapings. However, it is uncommon to find “one” mite in skin scrapings of normal dogs, the finding of one mite should not be ignored.
3. In some cases difficult to diagnosis, skin biopsy might be helpful.

References:

1. Hargis AM, Ginn PE. Integumentary system. In: McGavin MD, eds. Thomson’s special veterinary pathology, 3rd ed. Mosby, Missouri, 571-571, 2001.
2. Scott DW, Miller WH, and Griffin CE. Parasitic skin diseases. In: Kersey R, ed. Muller’s & Kirk’s small animal dermatology, 6th ed. WB Saunders Co, Philadelphia, 457-514, 2001.
3. Urquhart GM, Armour J, Duncan JL, Dunn AM and Jennings FW. Veterinary entomology. In: Urquhart GM, eds. Veterinary Parasitology, 2nd ed. Blackwell Science, Malden, 189-197, 1996.

Comparative Pathology Case 187

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Clinical History:

An 85 year-old female suffered from a large rapidly enlarging facial tumor around nasal base for 2 months. Grossly, it showed an erythematous nodular tumor. Wide excision down to nasal bone with tumor safe margin of 4 mm and split thickness skin graft from Rt thigh was performed. The specimen showed a large gray necrotic tumor of 3 x 2.2 x 1.3 cm in size. T2N0M0 stage II and radiotherapy of 5000 cGy was given.

Diagnosis:

Merkel cell carcinoma.

Gross Findings:

The resected specimen measured 3.5 x 2.5 x 1.6 cm in size. There showed a gray necrotic tumor of 3 x 2.2 x 1.3 cm.

Histopathological Findings:

Small undifferentiated round cell carcinoma or Merkel cell carcinoma with small tumor cells exhibiting scanty cytoplasm, uniformly dense nuclear chromatin, nuclear molding, inconspicuous nucleoli, severe necrosis, arranged in trabecular pattern in a delicate fibrous matrix. The superficial skin shows non-ulcerated with a clear tumor free zone beneath the squamous epithelium. The tumor cells show many mitotic figures and nuclear fragments. Focal dark color spindle cells are noticed.

PAP stains showed Cytokeratin + (of ball-like single cytoplasmic punctate pattern resembling an inclusion body). T-cell antigen focally +. NSE +. Synaptophysin +. Chromogranin +. Melanoma Ag M634 -. GFAP weakly +.

Discussion:

Merkel cell carcinoma is an uncommon cutaneous neuroendocrine carcinoma first described by Toker in 1972. Tang and Toker in 1978 studied the ultrastructural features and described intracytoplasmic dense-core granules closely similar to those seen in the neuroendocrine cells and noted the presence of neuron specific enolase, a marker for cells in the neuroendocrine system.

The Merkel cell is named for Fredrick Sigmund Merkel who discovered a particular round cell in the basal layers of the epidermis in 1875 and observed that these cells were associated with terminal nerve endings and reasoned that its function was related to the perception of mechanical stimuli. Current understanding of the Merkel cells is that they surround tactile hair follicles in organized innervated clusters and are believed to function as touch receptors. These cells have also been identified as isolated cells in the dermis without obvious neural connections.

Clinically these tumors are usually painless, firm, raised, nodular masses that are red, pink or occasionally blue in color. The overlying skin is usually intact, however in advanced lesions the skin may be ulcerated. The tumors range in size from 0.3cm to 14cm and average 2cm. It primarily develops on sun exposed areas of the body with the head and neck being the most common site accounting for 53% of cases in the review of the literature by Pitale, et al. It is equally distributed between males and females and typically appears in the 6th or 7th decade of life. Eleven to fifteen percent of patients present with clinically positive nodes.

Immunocytochemistry can be helpful in differentiating Merkel cell carcinoma from other tumors such as lymphoma, melanoma, metastatic oat cell carcinoma and undifferentiated carcinoma. The most useful markers in Merkel cell carcinoma are cytokeratin and neuron specific enolase. Cytokeratin is positive in a large percentage of Merkel cell carcinomas as well as oat cell carcinoma and undifferentiated carcinoma. The presence of ball-like immunostaining resembling an inclusion body is seen only in Merkel cell carcinoma and is useful in differentiating it from metastatic oat cell carcinoma. Neuron specific enolase is found in Merkel cell carcinoma and oat cell carcinoma but not melanoma, lymphoma, or undifferentiated carcinoma.

Ultrastructural studies play a significant role in the recognition of Merkel cell carcinoma. Although the light microscopic features are well documented and it is often possible to establish the identity of the tumor by paraffin section, confirmation from electron microscopy is usually desirable and may be essential when the diagnosis is uncertain by light microscopy. The most helpful features on electron microscopy are cytoplasmic extensions which are short and tapering and usually not longer than one cell diameter, dense-core granules measuring 75 to 200nm which are characteristically concentrated in cytoplasmic processes, and round paranuclear aggregates of cytoplasmic intermediate filaments.

Pitale et al reviewed the literature for head and neck sites and reported a 40% local recurrence rate, 50% nodal recurrence rate and a 34% incidence of distant metastases. They also noted that patients usually develop nodal and distant metastases in parallel and that death in these patients is usually a result of distant disease. The most common sites of distant metastases in order of decreasing frequency as reported by Hitchcock et al are lymphatics, liver, bone, brain, lung and skin. Factors that have been noted to portend a poor prognosis includes tumors composed of small cells, the presence to lymph node metastases at the time of presentation, particularly if more than 30% of the resected lymph nodes are involved and male gender.

Diagnostic Criteria:

1. The presence of ball-like cytokeratin immunostaining resembling an inclusion body is seen only in Merkel cell carcinoma and is useful in differentiating it from metastatic oat cell carcinoma.
2. Neuron specific enolase is found in Merkel cell carcinoma and oat cell carcinoma but not melanoma, lymphoma, or undifferentiated carcinoma.
3. EM study: cytoplasmic extensions xare short and tapering and usually not longer than one cell diameter, dense-core granules measuring 75 to 200nm which are characteristically concentrated in cytoplasmic processes, and round paranuclear aggregates of cytoplasmic intermediate filaments.

References:

1. Allen PJ, Zhang ZF, Coit DG: Surgical management of Merkel cell carcinoma. *Ann Surg* 1999; 229: 97-105.
2. Bielamowicz S, Smith D, Abemayor E: Merkel cell carcinoma: an aggressive skin neoplasm. *Laryngoscope* 1994; 104:528-532.
3. Brown TJ, Jackson BA, MacFarlane DF, Goldberg LH: Merkel cell carcinoma: spontaneous resolution and management of metastatic disease. *Dermatol Surg* 1999; 25:23-25.
4. Gollard R, Weber R, Kosty MP, Greenway HT, Massullo V, Humberson C: Merkel cell carcinoma: review of 22 cases with surgical, pathologic and therapeutic considerations. *Cancer* 2000; 88(8):1842-51.
5. Hanke CW, Conner AC, Temofeew RK, et al: Merkel cell carcinoma. *Arch Dermatol* 1989; 125:1096-1100.
6. Hill ADK, Brady MS, Coit DG: Intraoperative lymphatic mapping and sentinel lymph node biopsy for Merkel cell carcinoma. *Br J Surg* 1999; 86:518-21.
7. Nathu RM, Mendenhall WM, Parsons JT: Merkel cell carcinoma of the skin. *Radiat Oncol Investig* 1998; 6(5): 233-9.
8. Penn I, First MR: Merkel's cell carcinoma in organ recipients: report of 41 cases. *Transplantation* 1999 Dec 15; 68(11):1717-21.
9. Toker C: Trabecular carcinoma of the skin. *Arch Dermatol* 1972; 105:107-110.
10. Warner TFCS, Uno H, Hafez GR, et al: Merkel cells and Merkel cell tumors: ultrastructure, immunochemistry and review of the literature. *Cancer* 1983; 52:238-245.

Comparative Pathology Case 188

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History:

A female native 3 months old growing pig from a farrow to finish pig farm was complained with skin lesions by the owner, especially on the belly and thigh were more prominent. Other clinical signs included anorexia, slightly fever and reluctant to move. The morbidity was high (8/8) but none of the sick pigs was found dead. The pig was euthanized for pathological examination.

Diagnosis: Swinepox

Gross findings:

Nutritional state of this euthanized pig was well. Systemic vesicular, papular or nodular dermatopathy was easily noticed. Papular lesions occurred anywhere of skin, but was more obviously found on the belly and thigh. There were some tinny gray/white scales scattered over skin of the dorsal midline. Papules or nodules were solitary, from 1cm to 5 cm in diameter. Some papular lesions fused together, and were with varied size from 3cm to 15 cm in diameter. Central parts of most papules or vesicles were ulcerated and were accompanied with scar formation, umbilicated papular lesions could also be observed. Small mounts of fibrinous exudate were presented in the peritoneal cavity, other internal organs were grossly normal.

Histopathological findings:

Superficial layer had multifocal erosions and necrosis, some of these lesions were accompanied with scar formation. Some microabscesses of the epidermis were observed. Massive inflammatory cells such as neutrophils, eosinophils, histiocytes and lymphocytes infiltrated from epidermis to subcutaneous adipose layers. Adjacent to the subcutaneous appendage adnexa, included hair follicles, sebaceous and sweat glands, were also infiltrated by large numbers of inflammatory cells. At the margins of the necrotic epithelium, there was ballooning degeneration of epithelial cells. Numerous eosinophilic intracytoplasmic inclusion bodies could be seen in degenerated epithelial cells.

Laboratory result:

Poxvirus was identified in a homogenate of biopsied skin by electron microscope.

Discussion:

Etiology of swinepox is swinepox virus, the prototype virus of suipoxvirus of poxviridae. Swinepox virus is DNA virus and with brick-shape virion, about 300×240×100 nm in size, there is irregular arrangement of tubules on the outer membrane. Complex structure with core, lateral bodies, outer membrane, and sometimes enveloped. There are transcriptase, poly(A) polymerase, capping enzyme, methylating enzymes in virion. Poxvirus is cytoplasmic replication, and enveloped particles are released by exocytosis, nonenveloped particles are

released by cell lysis. Poxviruses are resistant to ambient temperatures and may survive many years in the dried scabs.

Transmission of swinepox virus from pig to pig is by the bite and sting of the pig louse (*Hematopinus suis*) or mosquito. Swinepox is usually a mild infection and with lesions restricted to the skin. Virus cannot replicate in the louse.

Papular or nodules lesions may occur anywhere of the skin but are most obviously on the belly. After infection, infected pig may show transient slight fever before development of papules, which within 1 to 2 days, papules have become vesicles and then umbilicated pustules progressively. Others clinical signs include anorexia, decreased growth rate and daily weight gain. As disease progress, the pocks crust over and scab by 7 days. Healing is usually complete by 3 weeks. There were not any other prominent clinical signs in addition to papular skin lesions.

Differential diagnosis of swinepox infection includes foot and mouth disease, vesicular stomatitis, and vesicular exanthema of swine. As any other diseases that accompanied with pustular or vesicular clinical presentations, should be considered clinically.

Not any commercial vaccine is available clinically. Effective preventive method of poxvirus infection is good sanitization and by elimination of blood-suckling arthropods such as pig louse and mosquito to block mechanical transmission route.

Because the large size and special envelope structure of virion. Electron microscopic examination is an ideal option for diagnosis of swinepox virus infections.

References:

1. Frank J. Fenner, E. Paul J. Gibbs, Frederick A. Murphy, Rudolf Rott, Michael J. Studdert, David O. White, veterinary virology 2nd ed. Poxviridae. 369-385,1993.
2. 劉振軒、邱慧英、張文發、蔡清恩、邱雲棕。豬病與屠宰衛生檢查圖譜。24-25。中華民國八十六年五月。
3. 中華民國獸醫學會。臨床豬病學。308-314。中華民國七十三年五月。

Comparative Pathology Case 189

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Clinical history:

A 76 year-old male patient admitted to our ward due to fever and chillness for 3 days on 1st Mar., 2001. Leukocytosis with abnormal immature blast cells in peripheral blood was also noted in routine CBC. Then he was transferred to hematology ward, and bone marrow punch biopsy was done. The diagnosis of bone marrow biopsy was AML. After a complete course of chemotherapy, a parietal wound developed since Sep., 2001. The wound start to bleed without clotting later, and he came to our Plasty-Surgery ward for help on 15th Nov., 2001. We could see the skull bone due to the deep wound. Then debridement was done in OPD, and the finding was greenish pus and necrotic fragile tissue at the first time. Twelve days later, he came to our Plasty-Surgery OPD due to bleeding again and without improvement of wound, secondary debridement was done. The diagnosis of granulocytic sarcoma was confirmed by histopathological examination. Unfortunately, he die of DIC several days later after this OPD visit.

Diagnosis: Granulocytic sarcoma (Chloroma)

Gross findings:

The specimen submitted consists of one pieces of the skin measuring 1.0 x 1.0 x 0.8 cm in size, fixed in formalin. Grossly, it is grayish and elastic.

Histopathological findings:

The dermis infiltrated numerous myeloblasts and monocytes, diagnostic of granulocytic sarcoma.

Histochemistry stain:

Leader stain shows reddish granules in mononuclear cells diagnostic of myeloblasts.

Discussion:

Approximately 50 percent of the case reports of granulocytic sarcoma are in patients with known myeloproliferative syndrome, including chronic myelogenous leukemia, polycythemia rubra vera, and thrombocytosis. Most of these cases are associated with the onset of blast crisis of the myeloproliferative syndrome. Another 30 percent of patients have no known underlying disease at the time granulocytic sarcoma is diagnosed. Ninety percent of these patients will develop acute leukemia 1 to 49 months later (mean of 10 months). The remaining 20 percent of the patients have known acute myeloid leukemia at the time of onset of the granulocytic sarcoma.

The majority of granulocytic tumors occur in the subperiosteal region of the bone, most commonly in the skull, sternum, ribs, or proximal portions of long bones. The tumor is thought to arise in the marrow and traverse the Haversian canal to reach the subperiosteum. Tumor collections may occur in soft tissue areas as well, most commonly in the head and neck region. Other sites affected are the lymph nodes, skin, and gastrointestinal and reproductive tracts.

Granulocytic sarcomas are characteristically greenish in the gross specimen (also named as “Chloroma”). This color fades on exposure to air and is due to the presence of myeloperoxidase.

Leukemia cutis, which implies infiltration of the skin by leukemic white cells, requires histological confirmation. They are easily confused histologically with a lymphomatous infiltration or metastatic carcinoma.

Although there may be morphological clues to the diagnosis of AML, specific cytochemical stains are required to distinguish AML from ALL and to identify certain subtypes with monocytic differentiation, such M4 and M5. The MPO (myeloperoxidase) reaction is positive in AML and is restricted to the granulocytic and monocytic series. The myelocytic series react strongly with CAE stain (chloracetate esterase stain, Leader stain), while not be seen in monocytic series. The criteria for monocytic differentiation is the appearance of strongly positive finding for ANAE stain (alphanaphthol acetate esterase stain) which could be inhibited specifically in monocytes by sodium fluoride (NaF), while myelocytic series would had weak positive in ANAE stain which could not be inhibited by sodium fluoride.

The course and prognosis of granulocytic sarcoma are similar to those of the underlying acute myeloid leukemia.

Diagnostic criteria:

Leukemic cells infiltrate in the dermis, and subtype was confirmed by cytochemical stain (Leader stain, ANAE stain, MPO stain)

Reference:

1. Neiman, R.S., Barcos, M., Berard, C., et al. Granulocytic sarcoma: a clinicopathologic study of 61 biopsied cases. *Cancer* 48:1426-1437, 1981.
2. Muss, H.B. and Moloney, W.C. Chloroma and other myeloblastic tumors. *Blood* 42:721-728, 1973
3. Wiernik, H. and Serpick, A.A. Granulocytic sarcoma (Chloroma). *Blood* 35:361-369, 1970

<p style="text-align: center;">中華民國比較病理學會 第一次至第二十四次比較病理學研討會病例一覽表</p>

第一次比較病理學研討會病例（83 年 10 月 30 日於台灣養豬科學研究所舉行）

動物別	診 斷	提 供 單 位
1. Dog	Myxoma	美國紐約動物醫學中心
2. Ferret	Chordoma	美國紐約動物醫學中心
3. Human	Ependymoblastoma	長庚紀念醫院
4. Goat	Cryptosporidiosis	台灣養豬科學研究所
5. <i>Lemur fulvus</i>	Amoebiasis	台灣養豬科學研究所
6. Monkey	Tuberculosis	台灣大學獸醫學系
7. Human	Tuberculosis	省立新竹醫院

第二次比較病理學研討會病例（84 年 4 月 9 日於台北病理中心舉行）

8. Pigeon	Synovial sarcoma	美國紐約動物醫學中心
9. Cat	Perinephric pseudocyst	台灣大學獸醫學系
10. Human	Choledochocyst	長庚紀念醫院
11. Rat	Bile duct ligation	中興大學獸醫學系
12. Human	<i>H. pylori</i> -induced gastritis	台北病理中心
13. Human	Pseudomembraneous colitis	省立新竹醫院
14. Dog	Dirofilariasis	台灣省家畜衛生試驗所
15. Human	Pulmonary dirofilariasis	台北榮民總醫院
16. Squirrel	Toxoplasmosis	台灣養豬科學研究所
17. Pig	Toxoplasmosis	屏東技術學院獸醫學系

第三次比較病理學研討會病例（84 年 8 月 27 日於國立台灣大學舉行）

18. Human	Malignant lymphoma	長庚紀念醫院
19. Wistar rat	Malignant lymphoma	國家實驗動物繁殖及研究中心
20. Human	Sparganosis	台北榮民總醫院
21. Chickens	Newcastle disease	國立台灣大學獸醫學系
22. Goldfish	Herpesvirus infection	國立台灣大學獸醫學系
23. Human	Chromomycosis	台北病理中心
24. Human	Metastatic thyroid carcinoma	省立新竹醫院
25. Human	Chordoma	新光吳火獅紀念醫院
26. Pig	Swine salmonellosis	國立中興大學獸醫學系
27. Pig	Vegetative valvular endocarditis	台灣養豬科學研究所

第四次比較病理學研討會病例（84 年 11 月 19 日於新光吳火獅紀念醫院舉行）

28. Human	Nocardiosis	台灣省立新竹醫院
29. Largemouth bass	Nocardiosis	屏東縣家畜疾病防治所
30. Dog	Demyelinating encephalitis	台灣養豬科學研究所
31. Malayan sun bears	Adenovirus infection	國立台灣大學獸醫學系
32. Human	Actinomycosis	台灣省立豐原醫院
33. Human	Tuberculosis	苗栗頭份為恭紀念醫院
34. Dog	Interstitial cell tumor	國立中興大學獸醫學系
35. Human	Carcinoid tumor	長庚紀念醫院
36. Siamese cat	Hepatic carcinoid	美國紐約動物醫學中心
37. Human	Myositis ossificans	台北醫學院

第五次比較病理學研討會（85 年 2 月 4 日於台北市立仁愛醫院舉行）：

中華民國比較病理學會成立大會暨專題演講

第六次比較病理學研討會（85 年 6 月 9 日於台中榮民總醫院舉行）

38. Ferret	Pheochromocytoma	美國紐約動物醫學中心
39. Human	Extra adrenal pheochromocytoma	新光吳火獅紀念醫院
40. Rat	Mammary gland fibroadenoma	國家實驗動物繁殖及研究中心
41. Human	Fibroadenoma	省立豐原醫院
手 4: Pointer bitch	Canine benign mixed mammary gland tumor	國立中興大學獸醫學系
43. Human	Phyllodes tumor	台中榮民總醫院
44. Dog	Canine oral papilloma	國立台灣大學獸醫學系
45. Human	Squamous cell papilloma	中國醫藥學院

第七次比較病理學研討會（85 年 11 月 10 日於國立屏東技術學院獸醫系舉行）

46. Cat	Feline dirofilariasis	美國紐約動物醫學中心
47. Human	Lung: metastatic carcinoma associated with cryptococcal infection. Liver: metastatic carcinoma. Adrenal gland, right: carcinoma (primary)	三軍總醫院
48. Wild rodents	Adiaspiromycosis	國立台灣大學獸醫學系
49. Human	Echinococcosis	台北榮民總醫院
50. Piglet	Porcine cytomegalovirus infection	台灣省家畜衛生試驗所
51. Human	Pneumocystis carinii pneumonia	台北病理中心
52. Goslings	Aspergillosis	屏東縣家畜疾病防治所

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| 53. Human | Intracavitary aspergilloma and cavitary tuberculosis, lung. | 羅東聖母醫院 |
| 54. Human | Fibrocalcified pulmonary TB mixed actinomycosis and aspergillosis lung infection with abscess DM, NIDDM. | 林口長庚紀念醫院 |
| 55. Broilers | Infectious laryngo-tracheitis (Herpesvirus infection) | 國立屏東技術學院獸醫學系 |

第八次比較病理學研討會（86年3月2日於台中榮民總醫院第一會議廳舉行）

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| 56. Human | Gastrointestinal stromal tumor | 台中榮民總醫院 |
| 57. Chicken | Cecal coccidiosis | 國立中興大學獸醫學系 |
| 58. Human | Tuberculous enteritis with perforation | 佛教慈濟綜合醫院 |
| 59. Dog | Colonic adenocarcinoma | 美國紐約動物醫學中心 |
| 60. Human | Intestinal capillariasis | 台北馬偕醫院 |
| 61. Goose | Spirochetosis | 國立嘉義農專獸醫科 |
| 62. Human | Submucosal leiomyoma of stomach | 頭份為恭紀念醫院 |
| 63. Porcine | Proliferative enteritis (<i>Lawsonia intracellularis</i> infection) | 屏東縣家畜疾病防治所 |
| 64. Human | 1. Adenocarcinoma of sigmoid colon
2. Old schistosomiasis of rectum | 省立新竹醫院 |
| 65. Caprine | Cryptosporidiosis | 台灣養豬科學研究所 |

第九次比較病理學研討會（86年7月20日於新光吳火獅紀念醫院B1大會議室舉行）

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| 66. Chapman's zebra | Echinococcosis | 國立台灣大學獸醫學系 |
| 67. Human | Hepatic ascariasis and cholelithiasis | 彰化基督教醫院 |
| 68. Human | Liver abscess (<i>Klebsiella pneumoniae</i>) | 台北醫學院 |
| 69. Pig | Pseudorabies (Herpesvirus infection) | 台灣養豬科學研究所 |
| 70. Human | Acute Q fever hepatitis | 佛教慈濟綜合醫院 |
| 71. Human | Myelolipoma | 台北耕莘醫院 |
| 72. Mouse | Reticulum cell sarcoma | 國家實驗動物繁殖及研究中心 |
| 73. Human | Hepatocellular carcinoma | 新光吳火獅紀念醫院 |
| 74. Wistar strain rats | Hepatocellular carcinoma induced by aflatoxin B1 | 台灣省農業藥物毒物試驗所 |
| 75. Rabbits | Acute yellow phosphorus intoxication | 國立中興大學獸醫學系 |

第十次比較病理學研討會（86年11月2日於三軍總醫院研究大樓一樓視聽教室舉行）

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| 76. Cat | Polycystic kidney bilateral and renal failure | 美國紐約動物醫學中心 |
| 77. Human | 1. Xanthogranulomatous inflammation with nephrolithiasis, kidney, right.
2. Ureteral stone, right. | 羅東聖母醫院 |

78. Chicken	Marek's disease in native chicken	屏東縣家畜疾病防治所
79. Human	Emphysematous pyelonephritis	彰化基督教醫院
80. SHR rat	1.Glomerular sclerosis and hyalinosis, segmental, focal, chronic, moderate 2.Benign hypertension	國防醫學院& 國家實驗動物繁殖及研究中心
81. Human	Angiomyolipoma	羅東博愛醫院
82. Human	Inverted papilloma of prostatic urethra	省立新竹醫院
83. SD rats	Phagolysosome-overload nephropathy	國家實驗動物繁殖及研究中心
84. Human	Nephrogenic adenoma	國泰醫院
85. Dog	Renal amyloidosis	台灣養豬科學研究所
86. Human	Multiple myeloma with systemic amyloidosis	佛教慈濟綜合醫院
87. Human	Squamous cell carcinoma of renal pelvis and calyces with extension to the ureter	台北病理中心
88. Human	Fibroepithelial polyp of the ureter	台北耕莘醫院
89. Goose	1.Severe visceral gout due to kidney damaged 2.Infectious serositis	國立中興大學獸醫學系
90. Human	Clear cell sarcoma of kidney	台北醫學院
91. Orange-rumped agoutis	Hypervitaminosis D	國立台灣大學獸醫學系

第十一次比較病理學研討會（87年3月1日於佛教慈濟綜合醫院舉行）

92. Pig	Foot-and-mouth disease (FMD)	屏東縣家畜疾病防治所
93. Dog	Mammary gland adenocarcinoma, complex type, with chondromucinous differentiation	國立台灣大學獸醫學系
94. Human	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	羅東聖母醫院
95. Dog	Transmissible venereal tumor	國立中興大學獸醫學系
96. Human	Malignant lymphoma, large cell type, diffuse, B-cell phenotype	彰化基督教醫院
97. Tiger	Carcinosarcomas	台灣養豬科學研究所
98. Human	Mucinous carcinoma with intraductal carcinoma	省立豐原醫院
99. Mouse	Mammary gland adenocarcinoma, type B, with pulmonary metastasis, BALB/cBYJ mouse	國家實驗動物繁殖及研究中心

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| 100. Human | Malignant fibrous histiocytoma and paraffinoma | 中國醫藥學院 |
| 101. Pig | Swine pox | 國立屏東科技大學獸醫學系 |
| 102. Human | Pleomorphic adenoma (benign mixed tumor) | 佛教慈濟綜合醫院 |

第十二次比較病理學研討會（87年4月19日於臺灣養豬科學研究所舉行）：
心臟血管專題演講

第十三次比較病理學研討會（87年6月14日於台北市立動物園舉行）

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|--------------|--|---------------|
| 103. Human | Atypical central neurocytoma | 新光吳火獅紀念醫院 |
| 104. SD rat | Cardiac schwannoma | 國家實驗動物繁殖及研究中心 |
| 105. Human | 1. Mucormycosis
2. Diabetes mellitus | 花蓮佛教慈濟綜合醫院 |
| 106. Dog | Parasitic meningoencephalitis, caused by <i>Toxocara canis</i> larvae migration | 臺灣養豬科學研究所 |
| 107. Human | 1. Primary cerebral malignant lymphoma
2. Acquired immune deficiency syndrome | 台北市立仁愛醫院 |
| 108. Lamb | Listeric encephalitis | 屏東縣家畜疾病防治所 |
| 109. Human | Desmoplastic infantile ganglioglioma | 高雄醫學院 |
| 110. Piglet | Pseudorabies | 國立屏東科技大學 |
| 111. Human | Schwannoma | 三軍總醫院 |
| 112. Chicken | Avian encephalomyelitis | 國立中興大學 |
| 113. Human | Tuberculous meningitis | 羅東聖母醫院 |
| 114. Dog | Osteosarcoma | 美國紐約動物醫學中心 |

第十四次比較病理學研討會（87年11月15日於國立中興大學舉行）

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|------------|--|------------|
| 115. Dog | Mixed germ-cell stromal tumor, mixed Sertoli cell and seminoma-like cell tumor | 美國紐約動物醫學中心 |
| 116. Human | Krukenberg's Tumor | 台北病理中心 |
| 117. Human | Primary insular carcinoid tumor arising from cystic teratoma of ovary. | 花蓮慈濟綜合醫院 |
| 118. Dog | Cystic endometrial hyperplasia | 臺灣養豬科學研究所 |
| 119. Human | Polypoid adenomyoma | 大甲李綜合醫院 |
| 120. Human | Gonadal stromal tumor | 耕莘醫院 |
| 121. Dog | Cystic subsurface epithelial structure (SES) | 國科會實驗動物中心 |
| 122. Human | Gestational choriocarcinoma | 彰化基督教醫院 |
| 123. Horse | Ovarian granulosa cell tumor | 國立中興大學 |

第十五次比較病理學研討會（88年4月11日於國立臺灣大學農學院附設動物醫院舉行）

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|----------|-----------------------------------|------------|
| 124. Dog | Superficial necrolytic dermatitis | 美國紐約動物醫學中心 |
|----------|-----------------------------------|------------|

125. Human	Solitary congenital self-healing histiocytosis	羅東博愛醫院
126. Mouse	Alopecia areata	國家實驗動物繁殖及研究中心
127. Human	Eumycotic mycetoma	花蓮佛教慈濟綜合醫院
128. Goat	Contagious pustular dermatitis	屏東縣&台東縣家畜疾病防治所
129. Human	Kaposi's sarcoma	華濟醫院
130. Chicken	Fowl pox and Marek's disease	國立中興大學獸醫學系
131. Human	Basal cell carcinoma (BCC)	羅東聖母醫院
132. Dog	Transmissible venereal tumor	國立臺灣大學獸醫學系

第十六次比較病理學研討會（88年6月6日於新光吳火獅紀念醫院舉行）

133. Human	Japanese encephalitis	花蓮佛教慈濟綜合醫院
134. Swine	Swine salmonellosis with meningitis	國立中興大學獸醫學系
135. Swine	Meningoencephalitis, fibrinopurulent and lymphocytic, diffuse, subacute, moderate, cerebrum, cerebellum and brain stem, caused by <i>Streptococcus</i> spp. infection	國家實驗動物繁殖及研究中心

第十七次比較病理學研討會（88年10月31日於台北榮民總醫院舉行）

136. Lorry	Viral encephalitis, polymavirus infection	美國紐約動物醫學中心
137. Dog	Canine Glioblastoma Multiforme in Cerebellopontine Angle	國立中興大學獸醫學院病理研究所
138. Dog	1. <i>Aspergillus</i> spp. encephalitis and myocarditis 2. Demyelinating canine distemper encephalitis	國立臺灣大學獸醫學系
139. Human	Disseminated strongyloidiasis	花蓮佛教慈濟綜合醫院
140. Calf	Coliform septicemia of newborn calf	屏東縣家畜疾病防治所
141. Human	Eosinophilic meningitis caused by <i>Angiostrongylus cantonensis</i>	台北榮民總醫院病理檢驗部
142. Chicken	Avian encephalomalacia (Vitamin E deficiency)	國立屏東科技大學獸醫學系

第十八次比較病理學研討會（89年4月30日於國立臺灣大學農學院附設動物醫院會議廳舉行）

143. Dog	Osteosarcoma associated with metallic implants	紐約動物醫學中心
144. Human	Radiation-induced osteogenic sarcoma	花蓮慈濟綜合醫院
145. Dog	Osteosarcoma, osteogenic	國立臺灣大學獸醫學系
146. Human	Pleomorphic rhabdomyosarcoma	行政院衛生署新竹醫院
147. Leopard	Papillary Mesothelioma of pericardium	國立屏東科技大學獸醫學系
148. Human	Cystic ameloblastoma	台北醫學院
149. Canine	Giant cell tumor of bone	國立中興大學獸醫學院
150. Human	Desmoplastic small round cell tumor (DSRCT)	華濟醫院

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|-----|-------|--------------------------|--------------------------|
| 151 | Goat | Osteodystrophia fibrosa | 台灣養豬科學研究所&台東縣
家畜疾病防治所 |
| 152 | Human | Hepatocellular carcinoma | 羅東聖母醫院 |

第十九次比較病理學研討會（89 年 9 月 3 日於台北市立動物園教育中心演講廳舉行）

- | | | | |
|-----|----------------------------|--|----------------------|
| 153 | Human | Enterovirus 71 infection | 彰化基督教醫院 |
| 154 | African
Green
monkey | Ebola virus infection | 行政院國家科學委員會實驗動
物中心 |
| 155 | Longhorn
steer | Rabies | 國立臺灣大學獸醫學系 |
| 156 | Formosan
civet | <i>Parastrongylus cantonensis</i> infection | 國立中興大學獸醫學院 |
| 157 | Norway
Rat | <i>Capillaria hepatica</i> ,
<i>Angiostrongylus cantonensis</i> | 行政院農委會農業藥物毒物
試驗所 |

第二十次比較病理學研討會（89 年 11 月 19 日於國立成功大學醫學院第二演講堂舉行）

- | | | | |
|-----|-------|---|-------------|
| 158 | Human | Hemangiopericytoma | 羅東聖母醫院 |
| 159 | Pig | Hypertrophic cardiomyopathy | 國立臺灣大學獸醫學系 |
| 160 | Human | Cardiac fibroma | 高雄醫學大學病理學科 |
| 161 | Pig | Porcine polyserositis and arthritis
(Glasser's disease) | 國立中興大學獸醫學院 |
| 162 | Human | Mycotic aneurysm of jejunal artery
secondary to infective endocarditis | 花蓮慈濟綜合醫院 |
| 163 | Goose | Parvoviral myocarditis | 國立屏東科大學獸醫學系 |
| 164 | Human | Myxoma of heart | 華濟醫院病理學科 |

第二十一次比較病理學研討會（90 年 4 月 22 日於三軍總醫院內湖院區第一演講廳舉行）

- | | | | |
|-----|--------|---|--------------|
| 165 | Human | Chinese herb nephropathy | 三軍總醫院病理部及腎臟科 |
| 166 | Rabbit | Nephroblastoma | 紐約動物醫學中心 |
| 167 | Human | Acute pancreatitis with rhabdomyolysis | 慈濟醫院病理科 |
| 168 | Pig | Nephroblastoma | 台灣動物科技研究所 |
| 169 | Human | Nephroblastoma with rhabdomyoblastic
differentiation | 高雄醫學大學病理學科 |
| 170 | Pig | Chronic nephritis caused by <i>Leptospira</i> spp | 國立中興大學獸醫學院 |
| 171 | Human | Malakoplakia | 彰化基督教醫院 |
| 172 | Human | Spindle cell sarcoma | 羅東聖母醫院 |
| 173 | Pig | Ureteropyelitis and cystitis | 中國化學製藥公司 |
| 174 | Human | Juxtaglomerular cell tumor | 新光醫院病理檢驗科 |

第二十二次比較病理研討會(90 年 7 月 15 日於行政院農委會家畜衛生試驗所)：新
興人畜共通傳染病專題

第二十三次比較病理研討會(90 年 11 月 4 日於三軍總醫院內湖院區第一講堂

175	Cat	Synovial myxomatosis	紐約動物醫學中心
176	Human	Kaposi's sarcoma	三軍總醫院病理部
177	Dog	Seminoma	國立臺灣大學獸醫學系
178	Human	Seminoma	耕莘醫院
179	Human	Subungual amelanotic melanoma	花蓮慈濟醫院
180	Pig	Melanocytoma	台灣動物科技研究所
181	Pig	Nephroblastoma	國立中興大學獸醫學院
182	Human	Extramammary Paget's disease (EMPD)	台北病理中心

第二十四次比較病理研討會(91 年 3 月 24 日於台北市立動物園教育中心演講廳) 舉
行

第二十五次比較病理研討會(91 年 7 月 7 日於臺灣大學農學院附設動物醫院會議廳)
舉行

183	Human	Darier's disease	高雄醫學大學病理學科
184	Feline	Dermatophytic pseudomycetoma	國立臺灣大學獸醫學系
185	Human	Subcutaneous Sparganosis	彰化基督教醫院
186	Dog	Demodicosis and scabies	國立中興大學獸醫病理學研究 所
187	Human	Merkel cell carcinoma	耕莘醫院病理科
188	Pig	Swinepox	台灣動物科技研究所
189	Human	Granulocytic sarcoma	慈濟醫院

中華民國比較病理學會
第一次至第二十四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	國立中興大學獸醫學系
	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	國立中興大學獸醫學系
	43.	Phyllodes tumor	Human	台中榮民總醫院
	44.	Canine oral papilloma	Dog	國立台灣大學獸醫學系
	45.	Squamous cell papilloma	Human	中國醫藥學院
	47.	Lung: metastatic carcinoma associated with cryptococcal infection. Liver: metastatic carcinoma. Adrenal gland, right: carcinoma (primary)	Human	三軍總醫院
	56.	Gastrointestinal stromal tumor	Human	台中榮民總醫院
	59.	Colonic adenocarcinoma	Dog	美國紐約動物醫學中心
	62.	Submucosal leiomyoma of stomach	Human	頭份為恭紀念醫院
	64.	1. Adenocarcinoma of sigmoid colon 2. Old schistosomiasis of rectum	Human	省立新竹醫院
	71.	Myelolipoma	Human	台北耕莘醫院
	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	國立台灣大學獸醫學系
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	國立中興大學獸醫學系
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 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 syndrome	Human	台北市立仁愛醫院
111.	Schwannoma	Human	三軍總醫院
114.	Osteosarcoma	Dog	美國紐約動物醫學中心
115.	Mixed germ-cell stromal tumor, mixed	Dog	美國紐約動物醫學中心

	sertoli cell and seminoma-like cell tumor			
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	國立中興大學	
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	國立臺灣大學獸醫學系	
137	Canine Glioblastoma Multifo Cerebellopontine Angle	Dog	國立中興大學獸醫學院病理研究所	
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	國立臺灣大學獸醫學系	
146	Pleomorphic rhabdomyosarcoma	Human	行政院衛生署新竹醫院	
147	Papillary Mesothelioma of pericardium	Leopard	國立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	國立中興大學獸醫學院	
150	Desmoplastic small round cell tumor (DS	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	
187	Merkel cell carcinoma	Human	耕莘醫院	
189	Granulocytic sarcoma	Human	花蓮慈濟綜合醫院	
細菌	6.	Tuberculosis	Monkey	國立臺灣大學獸醫學系
	7.	Tuberculosis	Human	省立新竹醫院
	12.	<i>H. pylori</i> -induced gastritis	Human	台北病理中心
	13.	Pseudomembranous colitis	Human	省立新竹醫院
	26.	Swine salmonellosis	Pig	國立中興大學獸醫學系
	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 cavitary tuberculosis, lung.	Human	羅東聖母醫院
	54.	Fibrocalcified pulmonary TB, left Apex. Mixed actinomycosis and aspergillosis lung infection with abscess DM, NIDDM.	Human	林口長庚紀念醫院
	58.	Tuberculous enteritis with perforation	Human	佛教慈濟綜合醫院
	61.	Spirochetosis	Goose	國立嘉義農專獸醫科
	63.	Proliferative enteritis (<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	國立中興大學獸醫學系
	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	國立中興大學獸醫學系
	135.	Meningoencephalitis, fibrinopurulent and lymphocytic, diffuse, subacute, moderate, cerebrum, cerebellum and brain stem, caused by <i>Streptococcus</i> 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	國立中興大學獸醫學院
	162	Mycotic aneurysm of jejunal artery secondary to infective endocarditis	Human	慈濟醫院病理科
	170	Chronic nephritis caused by <i>Leptospira</i> spp	Pig	國立中興大學獸醫學院
	173	Ureteropyelitis and cystitis	Pig	中國化學製藥公司
	184	Dermatophytic pseudomycetoma	Feline	國立台灣大學獸醫學系
病毒	21.	Newcastle disease	Chickens	國立台灣大學獸醫學系
	22.	Herpesvirus infection	Goldfish	國立台灣大學獸醫學系
	30.	Demyelinating canine distemper encephalitis	Dog	台灣養豬科學研究所
	31.	Adenovirus infection	Malayan sun bears	國立台灣大學獸醫學系
	50.	Porcine cytomegalovirus infection	Piglet	台灣省家畜衛生試驗所
	55.	Infectious laryngo-tracheitis	Broilers	國立屏東技術學院獸醫學

		(Herpesvirus infection)		系
	69.	Pseudorabies (Herpesvirus infection)	Pig	台灣養豬科學研究所
	78.	Marek's disease in native chicken	Chicken	屏東縣家畜疾病防治所
	92.	Foot- and- mouth disease (FMD)	Pig	屏東縣家畜疾病防治所
	101.	Swine pox	Pig	屏東科技大學獸醫學系
	110.	Pseduorabies	Piglet	國立屏東科技大學
	112.	Avian encephalomyelitis	Chicken	國立中興大學
	128.	Contagious pustular dermatitis	Goat	屏東縣&台東縣家畜疾病防治所
	130.	Fowl pox and Marek's disease	Chicken	國立中興大學獸醫學系
	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. <i>Aspergillus</i> spp. encephalitis and myocarditis 2.Demyelinating canine distemper encep	Dog	國立臺灣大學獸醫學系
	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	國立臺灣大學獸醫學系
	163	Parvoviral myocarditis	Goose	屏東科技大學獸醫學系
	188	Swinepox	Pig	台灣養豬科學研究所
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	國立台灣大學獸醫學系
	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. <i>Aspergillus</i> spp. encephalitis and myocarditis 2.Demyelinating canine distemper encep	Dog	國立臺灣大學獸醫學系
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 2.Old schistosomiasis of rectum	Human	省立新竹醫院
	66.	Echinococcosis	Chapman's zebra	國立台灣大學獸醫學系
	67.	Hepatic ascariasis and cholelithiasis	Human	彰化基督教醫院
	106.	Parasitic meningoencephalitis, caused by <i>Toxocara canis</i> 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 <i>Angiostrongylus cantonensis</i>	Human	台北榮民總醫院病理檢驗部
	156	<i>Parastrongylus cantonensis</i> infection	Formosan gem-faced civet	國立中興大學獸醫學院
	157	<i>Capillaria hepatica</i> , <i>Angiostrongylus cantonensis</i>	Norway Rat	行政院農業委員會農業藥物毒物試驗所
	185	Subcutaneous Sparganosis	Human	彰化基督教醫院
	186	Demodicosis and scabies	Dog	
原蟲	4.	Cryptosporidiosis	Goat	台灣養豬科學研究所
	15.	Amoebiasis	<i>Lemur fulvus</i>	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.	<i>Pneumocystis carinii</i> pneumonia	Human	台北病理中心
	57.	Cecal coccidiosis	Chicken	國立中興大學獸醫學系
	65.	Cryptosporidiosis	Carprine	台灣養豬科學研究所
立克次體	70.	Acute Q fever hepatitis	Human	佛教慈濟綜合醫院
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	國立中興大學獸醫學系
	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	實驗動物繁殖及研究
	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	國立中興大學獸醫學系
91.	Hypervitaminosis D	Orange-rumped agoutis	國立台灣大學獸醫學系
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	國立台灣大學獸醫學系
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

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、入會費及常年會費繳交方式：以銀行轉帳或匯款（花蓮市農會、帳號：363-004-0003289-1、戶名：陳宥竹）；並請填妥入會申請表連同銀行轉帳交易明細表或匯款單以郵寄或傳真方式寄回中華民國比較病理學會秘書處收。地址：970 花蓮市中央路三段 701 號 慈濟大學病理學科、電話：03-8565301 轉 7229 或 7298、傳真 03-8574265。

會員資料更新

各位會員：

您好！本學會擬重整各會員資料，以利會務之執行。
麻煩請您能填妥表格後，傳真或郵寄回學會秘書處，謝謝您的配合！

中華民國比較學會秘書處
970 花蓮市中央路三段 701 號
慈濟大學病理學科
Tel：(03)8565301 轉 7229
Fax：03-8574265

—— — — — — 中華民國比較學會 —— — — — —

會員姓名：_____

會員類別：☐一般會員 編號：_____

☐贊助會員 編號：_____

☐學生會員 編號：_____

服務單位：_____

職 稱：_____

通訊地址：_____

電 話：_____ 傳真：_____

E- mail address：_____