

AFIP Wednesday Slide Conference Cases  
1971-72

<u>Date</u>	<u>Case #</u>	<u>Species</u>	<u>Organ</u>	<u>Diagnosis/Causative Agent</u>
8 Oct. 71	70D171	Duck	Brain	Leucocytozoonosis
8 Oct. 71	70N-1599	Cat	Brain, Eye	Feline infectious peritonitis
8 Oct. 71	69-985	Cow	Placenta	Normal
8 Oct. 71	67-218	Dog	Heart	Malignant mesothelioma
15 Oct. 71	20838	Dog	Mass	<sup>Ne</sup> Malignant synovioma
15 Oct. 71	71-D-147	Cat	Kidney	Polycystic kidney disease Calcium oxalate nephropathy
15 Oct. 71	4694-68	Hamster	Kidney, Spleen, Liver	Amyloidosis
15 Oct. 71	71-21606	Hamster	Skin	<u>Demodex auratus</u>
22 Oct. 71	16463	Capuchin Monkey	Intestine	<u>Balantidium coli</u>
22 Oct. 71	17393	Dog	Fecal smear	<u>Giardia canis</u>
22 Oct. 71	71-S-175	Dog	Sternum	Liposarcoma
22 Oct. 71	17168	Dog	Kidney	Granulomatous nephritis caused by <u>Helminthosporium spiciferum</u>
29 Oct. 71	X	Sheep	Blood	<u>Eperythrozoon ovis</u>
29 Oct. 71	71486-4	Sheep	Skin	Cockle caused by <u>Melophagus ovinus</u>
29 Oct. 71	0153-4031	Dog	Brain	<u>Trypanosoma congolense</u>
29 Oct. 71	69-2012	White-tailed Deer	Lung	Pulmonary fibromatosis
5 Nov. 71	4706-7	Pig	Lung	<u>Mycobacterium tuberculosis</u> (Avian strain)
5 Nov. 71	4734-4	Pig	Spleen	Chronic granulomatous disease
5 Nov. 71	164001	Cat	Skin	Intradermal granuloma

<u>Date</u>	<u>Case #</u>	<u>Species</u>	<u>Organ</u>	<u>Diagnosis/Causative Agent</u>
5 Nov. 71	K-71-1271	Chicken	Brain	Nutritional encephalomalacia
12 Nov. 71	71-2181	Golden Hamster	Liver	Polycystic disease
12 Nov. 71	61-530	Cow	Skin	Streptothricosis due to <u>Dermatophilus congolensis</u>
12 Nov. 71	71-776	Mink	Brain	Experimental mercury poisoning
12 Nov. 71	71-P-854	Dog	Heart	Hemangiosarcoma
19 Nov. 71	34053	Cat	Fat	Panniculitis
19 Nov. 71	7173	Pig	Intestine	Normal enterocytes
19 Nov. 71	691	Dog	Kidney	Infraglomerular epithelial reflux
19 Nov. 71	19443	Dog	Liver, pancreas	Pancreatic necrosis, glycogen hepatopathy
3 Dec. 71	5306-2A	Big Brown Bat ( <u>Eptesicus fuscus</u> )	Kidney	Coccidiosis ( <u>Klossiella sp.</u> )
3 Dec. 71	71-P3187	Wild Eagle	Liver	Tuberculosis
3 Dec. 71	71-2172	Horse	Cryptorchid testis	Teratoma
3 Dec. 71	W713-64	Raccoon	Lung	Giant cell pneumonia caused by canine distemper virus
10 Dec. 71	70-1067	Dog	Skin	Rhabditic dermatitis ( <u>Rhabditis (Pelordera) strongyloides</u> )
10 Dec. 71	27,234	Pig	Lung	<u>Ascaris suum</u>
10 Dec. 71	71-5193	Pig	Kidney	Perirenal edema ( <u>Amaranthus retroflexus</u> toxicity)
10 Dec. 71	70-5887	Pig	Lung	Pneumonia due to rheovirus type III and <u>Ascaris suum</u>
17 Dec. 71	2262	Rat	Lung	Normal
17 Dec. 71	2908	Rat	Lung	Chronic murine pneumonia ( <u>Mycoplasma pulmonis</u> )

<u>Date</u>	<u>Case #</u>	<u>Species</u>	<u>Organ</u>	<u>Diagnosis/Causative Agent</u>
17 Dec. 72	2800	Rat	Lung	Chronic murine pneumonia ( <u>Mycoplasma pulmonis</u> )
17 Dec. 71	2972	Rat	Lung	Pleuritis, pericarditis and lymphadenitis ( <u>Diplococcus pneumoniae</u> )
17 Dec. 71	3032	Rat	Lung	Pneumonia, lymphadenitis ( <u>Corynebacterium kutscheri</u> )
7 Jan. 72	8903	Mouse	Skin	Cutaneous acariasis ✓ ( <u>Myobia musculi</u> )
7 Jan. 72	8882	Burro	Epididymis	Granulomatous epididymitis ( <u>Besnoitia benetti</u> )
7 Jan. 72	8824	Rhesus Monkey	Liver	Experimental yellow fever ✓
7 Jan. 72	69CT40	Cat	Mass	Fibrosarcoma (C-Type virus)
14 Jan. 72	70-71	Man	Lung	Bubonic plague ( <u>Pasteurella pestis</u> )
14 Jan. 72	3397-70	Rhesus Monkey	Pancreas	Pancreatic ductular ectasia
14 Jan. 72	71-4917	Horse	Anterior mesenteric artery	Thromboembolism ( <u>Strongylus vulgaris</u> )
14 Jan. 72	71-1877	Bovine fetus	Liver, spleen	Abortion (IBR virus)
21 Jan. 72	264	Cat	Liver	Erethremic myelosis
21 Jan. 72	5045	Cat	Intestine	Normal globule leucocytes
21 Jan. 72	4668 A&B	Cat	Bone	Radiation induced rickets
21 Jan. 72	2967	Rat	Liver	Pneumococcal hepatitis
28 Jan. 72	70-350	Dorcas Gazelle	Liver muscle	Muscular dystrophy, hepatic necrosis (Vitamin E/selenium deficiency)
28 Jan. 72	71-D-98	Opossum	Lung	Pulmonary nocardiosis
28 Jan. 72	5761	Marmoset	Liver	Parasitic cyst (linguatulid nymph of <u>Porocephalus sp.</u> )
28 Jan. 72	606A	Dog	Testis	Interstitial cell tumor

<u>Date</u>	<u>Case #</u>	<u>Species</u>	<u>Organ</u>	<u>Diagnosis/Causative Agent</u>
2 Feb. 72	4053 & 4027	Dog	Intestine Lymph Node	Salmon poisoning ( <u>Neorickettsia helmintheca</u> ) and <u>Nanophytes salmincola</u> )
2 Feb. 72	3550	Fox	Lung	Granulomatous pneumonia ( <u>Paragonimus kellicotti</u> )
2 Feb. 72	4035	Dog	Pectoral region	Extraskeletal osteosarcoma
2 Feb. 72	71-3994	Cow	Placenta	Mycotic abortion <u>Rhizopus arrhizus</u> )
9 Feb. 72	41309	Equine Fetus	Liver	Abortion (Equine viral rhinopneumonitis virus)
9 Feb. 72	42704	Dog	Liver	Infectious canine hepatitis
9 Feb. 72	42756	Cow	Intestine	Johne's disease ( <u>Mycobacterium paratuberculosis</u> )
23 Feb. 72	K-71-1208	Trout ( <u>Salvelinus fontinalis</u> )	Skin	Black spot disease ( <u>Neodiplostomum cuticula</u> )
23 Feb. 72	21136	Dog	Lung	Aortic body tumor
23 Feb. 72	5066-10	Cat	Pancreas	Amyloidosis of islets of langerhans
23 Feb. 72	20115	Dog	Cryptorchid testis	Papillary cystadenoma or Sertoli cell tumor? seminoma
1 Mar. 72	43	Calif. Sea Lion	Lung	<u>Parafilaroides decorus</u> infection
1 Mar. 72	33003	Calif. Sea Lion	Lung, Kidney	<u>Parafilaroides decorus</u> infection Interstitial nephritis ( <u>Leptospira pomona</u> )
1 Mar. 72	No #	Sheep	Liver	<u>Cysticercus tenuicollis</u> infestation
1 Mar. 72	20900	Dog	Lymph node adrenal	Hypoadrenocorticalism (Adrenal necrosis)
8 Mar. 72	71-35	Dog	Urinary bladder	Transitional cell carcinoma canine distemper
8 Mar. 72	70928-6	Pig	Kidney	Actinobacillosis ( <u>Actinobacillus equuli</u> )

<u>Date</u>	<u>Case #</u>	<u>Species</u>	<u>Organ</u>	<u>Diagnosis/Causative Agent</u>
8 Mar. 72	6957-7	Horse	Brain	Western equine encephalomyelitis
8 Mar. 72	71-77	Cat	Femoral head	Neoplasm ?
15 Mar. 72	267-71	Calf	Liver	Pyrolizidine alkaloid toxicity ( <u>Senecio jacobea</u> )
15 Mar. 72	1069-70	Dog	External ear canal	Ceruminous gland adenocarcinoma
15 Mar. 72	180-71	Rat	Lung	Uterine carcinosarcoma
15 Mar. 72	71-162	Calf	Kidney, lung, adrenal gland	Mycoplasma infection
22 Mar. 72	71-680	Rabbit	Lung	Abscess ( <u>Pasteurella multocida</u> )
22 Mar. 72	71-266	Miniature pig	Heart	Traumatic pericarditis and myocardial necrosis ( <u>Clostridium sp.</u> )
22 Mar. 72	2770-3-71	Rabbit fetus	Kidney	Bilateral hydronephrosis
22 Mar. 72	69-2002	Dog	Spleen, ovary	Dysgerminoma
5 Apr. 72	4926	Mouse	Misc.	<u>Besnoitia jellisoni</u>
5 Apr. 72	5363	Hamster	Misc.	<u>Leishmania donovani</u> , sudan strain. Renal amyloidosis
5 Apr. 72	70-P-747	Pig	Brain	Edema disease
5 Apr. 72	1261169	Cat	Stomach	Sparganosis ( <u>Spirometra sp.</u> )
12 Apr. 72	1283220	Nelson bighorn sheep	Lymph node	Granulomatous lymphadenitis ( <u>Amoebidae</u> )
12 Apr. 72	70-P-750	Horse	Lung	Adenoviral infection
12 Apr. 72	71R156	Horse	Heart	Experimental equine viral arteritis
12 Apr. 72	20481	Dog	Adrenal medulla	Globular degenerative adrenalopathy
19 Apr. 72	2581	Syrian hamster	Cheek pouch	Squamous cell carcinoma (DMBA induced)
19 Apr. 72	K70-788	Calf	Heart	Heterotopic epithelial inclusions

<u>Date</u>	<u>Case #</u>	<u>Species</u>	<u>Organ</u>	<u>Diagnosis/Causative Agent</u>
19 Apr. 72	LLE 1550	Mouse	Misc.	Thymic lymphoma cystic uterine hyperplasia
19 Apr. 72	70-18839	Mouse	Kidney	Staphylococcal granuloma
26 Apr. 72	178A	Dog	Perineal mass	Atypical perineal gland carcinoma ?
26 Apr. 72	625A	Dog	Skin	Trichoepithelioma
26 Apr. 72	295A	African elephant	Tusk	Inflammatory polyp
26 Apr. 72	411	Rhesus monkey	Blood	Experimental lead poisoning
3 May 72	8932	Dog	Tracheal mass	Amyloid tumor or medullary thyroid carcinoma?
3 May 72	8843	Rhesus monkey	Urinary bladder	Eosinophilic intracytoplasmic inclusions
3 May 72	41489	Cow	Muscle	Backleg ( <u>Clostridium chauvei</u> )
3 May 72	C-7	Man	Lung	Pneumonia ( <u>Pneumocystis carinii</u> )
10 May 72	71-254-F5 and F2	Dog	Misc.	Melioidosis ( <u>Pseudomonas pseudomallei</u> )
10 May 72	71-254-F19	Dog	Muscle tongue	Melioidosis red tongue
10 May 72	10505	Duckling	Foot	Bumble foot ( <u>Staphylococcus aureus</u> )
10 May 72	71-D-84	Rhesus monkey	Adrenal gland	Malignant lymphoma
17 May 72	70-33	Cat	Intestine	Necrotizing enteritis ( <u>Toxoplasma gondii</u> )
17 May 72	70-58	Mouse	Liver	Tyzzler's disease ( <u>Bacillus piliformis</u> )
17 May 72	69-2967	Dog	Lung	Chondrosarcoma
17 May 72	220A	Syrian hamster	Ovary	Fibroblastic nodules. Intravascular trophoblastic epithelium
24 May 72	72-1	Dog	Lymph node	Granulomatous disease ( <u>Freund's adjuvant</u> )

<u>Date</u>	<u>Case #</u>	<u>Species</u>	<u>Organ</u>	<u>Diagnosis/Causative Agent</u>
24 May 72	71-249-8 and 9	Cat	Lung spleen	Reticuloendotheliosis
24 May 72	69-2208	Dog	Liver	Osteogenic sarcoma
24 May 72	70-1308	Unknown	Thymus	Squamous cell carcinoma
31 May 72	200-71	Rhesus monkey	Lung	Pneumonia ( <u>Nocardia sp.</u> )
31 May 72	A-72-94-Z	Mouse	Blood misc.	<u>Plasmodium berghei</u>
31 May 72	A-72-694-13	Rhesus monkey	Heart	Experimental atherosclerosis
31 May 72	A-72-252	Dog	Skin	Dermatomycosis ( <u>Microsporium</u> or <u>Trichophyton</u> )

*Handwritten: Have all*

Histories for Friday Slide Conference  
8 October 1971  
(First conference of 1971-72)

Case I - 70D-171 - Most of a flock of ducklings became suddenly ill. Signs were listlessness, anorexia, rapid breathing, and in some, nervous derangement prior to death.

Case II - 70N1599 (Slide A&B) - These sections are from tissue taken at necropsy of a 5-month-old female cat. Prior to death, keratitis, incoordination and muscle tremors were noted.

Case III - 69-985 - A Holstein cow died suddenly of undetermined causes and a necropsy was performed. A pathologist presented with this slide thought it represented an incidental finding.

Case IV - 67-218 - A 12-year-old dog had diarrhea and severe respiratory disturbances. Crepitant rales were heard on auscultation and subsequent aspiration of pleural fluid revealed a serosanguinous hydrothorax. A malignant neoplasm of the thorax was diagnosed radiographically. On necropsy numerous bosselated growths were found on the outer surface of the pericardium especially near the base of the heart. One such growth was attached to the right auricle of the heart and one was also found on the intercostal pleura.

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Results of Friday Slide Conference  
8 October 1971

Case I - 70D-171 - The ducklings had leucocytozoonosis caused by Leucocytozoon simondi. The large structures in the brain were megaloschizonts, characteristic forms of the second asexual cycle of the parasite in the duck.

Ref.: Desser, S. S.: Schizogony and gametogony of Leucocytozoon simondi and associated reactions in the avian host. *J. Protozoology*, 14: (2) 244-254, 1967.

Case II - 70N1599 (Slide A&B) - The 5-month-old cat had feline infectious peritonitis. Since necrotizing pyogranulomatous lesions of the brain and the eye have been observed in some cases of the disease. This animal had similar lesions in the kidney cortex.

Ref.: Doherty, M. J.: Ocular manifestations of feline infectious peritonitis. *JAVMA*, 159: 417-424, Aug. 15, 1971.

Case III - 69-985 - The tissue in this section from the Holstein cow represents a normal placentome from a gravid uterus. To the uninitiated who is caught unaware, this might be confused with a neoplasm, such as a mesothelioma.

Case IV - 67-218 - It was believed by most seminar attendees that the neoplasm in the 12-year-old dog represented a malignant mesothelioma. A characteristic feature of the neoplasm was the single layer of cuboidal cells on the surface of the mass.

Ref.: Moulton, J.: Tumors in Domestic Animals, 145.

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15 OCT 71

CASE I - 20538 - A 2-year-old female Irish wolfhound was presented with a complaint of left rear leg lameness. Examination established the presence of hypertonicity of muscles of the affected limb, impairment of mobility of the stifle, and popliteal lymphadenomegaly. Additionally, a modest superficial inguinal lymphadenomegaly was noted. A surgical biopsy was performed and the popliteal lymph node was submitted for histopathological evaluation.

CASE II - 71-D-147 - A 6-year-old spayed female Siamese cat had been under clinical investigation for several days with signs of uremia. Abdominal palpation revealed enlarged nodular kidneys. A laparotomy was performed and the animal was euthanized.

CASE III - 4694-68 - This section is from tissue obtained from an 18-month-old male hamster which was part of an experiment in which aging processes were being studied. The hamsters which were killed in extremis, or at predetermined ages, frequently underwent a rapid loss in condition and died soon after.

CASE IV - 71-21806 - Alopecia developed in 50% of a large group of male hamsters being held on a long term carcinogenesis experiment.

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15 OCT 71

Case 1 - 268-8 - The pathologist's diagnosis of the neoplasm in the 2-year-old female Irish wolfhound was malignant synovium. Diagnoses from the seminar attendees were greatly varied. Unfortunately, the dog was killed, no necropsy was done and the primary site of the neoplasm could not be determined.

Case 11 - 71-0-147 - The 6-year-old spayed female Siamese cat had extensive poly cystic kidney disease and calcium oxalate nephropathy. The role of the calcium oxalate crystals and the pathogenesis of the kidney lesions is conjectural.

Ref. - Kersing, E. L. and Nielsen, S. W.: Ethylene Glycol Poisoning in Small Animals, JAVMA, 146: 113-118, 1965.

Case III - 4694-68 - The 18-month-old male hamster had amyloidosis of the kidney, spleen, and liver. Interstitial nephritis was also present.

Ref. - Gleiser, C. A. et al.: Amyloidosis and Renal Paramyloid in a Closed Hamster Colony, Lab. Animal Sci. 21: 197-202, 1971.

Case IV - 71-2100 - The section of skin from the male hamster with alopecia contained numerous demodicid mites. These were identified as Demodex aurati. This species should be distinguished from Demodex criceti, which also infests hamsters, but is present only in pits on the surface of the skin, and not hair follicles. The two species are morphologically distinct.

Ref. - Sattling, W. B.: Demodex aurati sp. Nov. and D. criceti; Ectoparasites of the Golden Hamster (Mesocricetus auratus), Parasitology 51: 529-532, 1961.

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Have all

Histories  
AFIP Friday Slide Conference  
22 October 1971

Case I - 16463 - A 2-1/2-month-old female capuchin monkey (Cebus albifrons) which was purchased from a pet shop, appeared sleepy and had continuous copious diarrhea until it died 6 days later. At necropsy the lungs were reddish-brown and consolidated. The intestine was distended with gas, and the contents of the colon were liquid, although the mucosa appeared normal. The long bones could be bent into a "U" shape without breaking. Cultures for bacteria were negative.

*BALANTIDIUM*

Case II - 17393 - A 6-month-old German shepherd bitch was observed to have a good appetite, but did not gain weight. The owner reported an intermittent low-grade diarrhea. This section is a fecal smear stained with Gomori-Wheatly stain.

*Giardia canis*

Case III - 71-S-175 - A 7-year-old male coonhound was presented with multiple soft nodular subcutaneous masses varying from 2-8 cm. in diameter along the sternum. The swellings were present for one month. At presentation the axillary nodes were enlarged. One of the nodules was surgically removed and submitted for histopathologic examination.

*Liposarcoma*

Case IV - 17168 - A 3-year-old male poodle dog became weak, started trembling, and progressed to convulsions and coma with death within 72 hours of onset. Creatinine and BUN levels were elevated and the clinical diagnosis was renal failure. On necropsy gross lesions included hemorrhagic gastroenteritis, pulmonary edema and congestion, thymic petechiation and yellow abdominal fat. In addition, there were several foci of softening in the corticomedullary junction of the kidney.

*Helminthosporium*

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Results  
AFIP Friday Slide Conference  
22 October 1971

Case I - 16463 - Large protozoan parasites identified as Balantidium coli were present in the intestinal mucosa of the 2-1/2-month-old female capuchin monkey. Intestinal ulceration was also noted, but not represented on this slide. Although B. coli is reputedly pathogenic for primates, it is debatable in this case, because the owner had fed the monkey a diet consisting only of grapes.

Ref.: Levine, N. D.: Protozoan Parasites of Domestic Animals and Man. Burgess Publishing Co., Minneapolis, Minn., p. 371-374, 1961.

Case II - 17393 - The 6-month-old German shepherd bitch had giardiasis. The fecal smear contained numerous Giardia canis cysts.

Ref.: Ibid. p. 120.

Case III - 71-S-175 - The 7-year-old male coonhound had multiple liposarcomas in its sternal region. The section was characterized by swirling masses of adipose tissue interspersed with areas of fat necrosis. Neoplastic cells were large and pleomorphic with eosinophilic cytoplasm.

Ref.: Zwicker, G. M.: Liposarcoma in a dog. *Path. Vet.* 7: 145-147, 1970.

Case IV - 17168 - The 3-year-old poodle dog had granulomatous nephritis caused by a fungus. Although the organism was not grown on artificial media, it was felt that the septate hyphae and distinct pigmentation were similar to those of Helminthosporium spiciferum.

Ref.: Bridges, C. H., and Beasley, J. N.: Maduromycotic mycetomas in animals. *JAVMA* 137: 192-201, 1960.

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Histories  
AFIP Friday Slide Conference  
29 October 1971

Case I - X - This peripheral blood smear was taken from a ewe that exhibited no visible clinical abnormalities.

Hematology		
Total WBC/mm <sup>3</sup>	11,900	
Differential		
Neutrophilic segs	49	
Lymphocytes	37	
Monocytes	12	
Eosinophils	2	
Hematocrit		14%
Hemoglobin		4.2gm%
Reticulocytes		1.3%
MCV		53M <sup>3</sup>

Chemistry	
SGOT	21 units
BUN	15mg%
Total bilirubin	0.56mg%
Direct bilirubin	0.35mg%
Indirect bilirubin	0.21mg%
Total Protein	6.2mg%
A:G ratio	0.37

*HAUC* Case II - 71486-4 - This section is from the skin of a clinically healthy 4-month-old lamb.

*HAUC* Case III - 0153-4031A&B - A dog was experimentally infected with a disease endogenous to East Africa.

*HAUC* Case IV - 69-2012 - An adult male white-tailed deer shot in Wisconsin was submitted for examination because of numerous cutaneous growths on the head and neck and few on the abdomen. On necropsy many discrete, firm white nodules were found throughout the lung.

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Results of AFIP Friday Slide Conference  
29 October 1971

Case I - X - The numerous protozoan parasites, present on the surface of erythrocytes of their peripheral blood smear taken from a ewe, were identified as Eperythrozoon ovis.

Ref.: Krier, J. P. and Ristic, M.: Morphologic, Antigenic, and Pathogenic Characteristics of Eperythrozoon ovis and Eperythrozoon wenyonii. Am. J. Vet. Res. 24: 488, 1963.

Case II - 71486-4 - The 4-month-old lamb had dermatitis or "cockle" caused by the common ked Melophagus ovinus. The presence of empty dermal capillaries and of arteriolar vasoconstriction characterize the skin of sheep that possess relative resistance to ked infestation.

Ref.: Nelson, W. A. and Bainborough, A. R.: Development in Sheep of Resistance to the Ked Melophagus ovinus (L). III. Histopathology of Sheep Skin as a Clue to the Nature of Resistance. Exp. Parasitology, 13: 118, 1963.

Case III - 0153-4031 - The dog was experimentally infected with Trypanosoma congolense. Microscopically, there were focal hemorrhages in the brain, particularly in the molecular layer of the cerebellum and the brain stem. Occasionally, clumps of platelets and trypanosomal organisms were seen in cerebellar and myocardial vessels forming intravascular emboli.

Ref.: Innes, J.R.M. and Saunders, L. Z.: Comparative Neuropathology, Academic Press, Inc., N.Y., 452-481, 1962.

Case IV - 69-2012 - The adult male white-tailed deer had pulmonary fibromatosis concurrent with cutaneous fibromatosis. In addition, a larval form of a lungworm was present in some of the sections.

Ref.: Tajima, M., Gordon, D. E. and Olson, C.: Electron Microscopy of Bovine Papilloma and Deer Fibroma Viruses. Am. J. Vet. Res., 29(6): 1185-1194, June 1968.

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Histories for AFIP Friday Slide Conference  
5 November 1971

Case I - 4706-7 - Condemned organs from a pig were obtained from a local slaughter house.

Case II - 4734-4 - This section is from porcine tissues obtained from a local slaughter house.

Case III - 164001 - A 1½-year-old female cat had several intracutaneous nodules in its lower lip which were surgically removed and submitted for examination.

Case IV - K-71-1271 - Two speckled 8-week-old Sussex chicks had central nervous system signs of incoordination and "padding." No gross changes were observed at necropsy.

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Results  
AFIP Friday Slide Conference  
5 November 1971

Case I - 4706-7 - The sarcomatous appearance of the pulmonary lesions of the slaughterhouse pig was compatible with that produced by the avian strain of Mycobacterium tuberculosis. Both the lungs and the enlarged regional lymph nodes contained myriads of acid-fast positive rods.

Case II - 4734-4 - Histopathologically, the section of spleen in this case was characteristic of chronic granulomatous disease of pigs. The liver was very large and also had marked fibrous replacement. Lymph nodes contained extra-medullary hematopoiesis, early medullary fibrosis and sinus histiocytosis.  
Ref.: Migaki, G.: Hematopoietic Neoplasms of Slaughter Animals. In Comparative Morphology of Hematopoietic Neoplasms. Nat. Cancer Inst. Monogr. 32: 129-130, 1969.

Case III - 164001 - The 1½-year-old female cat had intradermal granulomata with collagen degeneration.  
Ref.: Bucci, T. J.: Intradermal Granuloma Associated with Collagen Degeneration in Three Cats. JAVMA 148: 794, 1966.

Case IV - K-71-1271 - The 8-week old Sussex chick had the acute form of nutritional encephalomalacia caused by vitamin E.  
Ref.: Mayor, O. Y.: Histopathological Aids to the Diagnosis of Certain Poultry Diseases. Vet. Bull. 38: 273-285, 1968.  
Pappenheimer, A. M. and Goettsch, M.: A Cerebellar Disorder in Chicks Apparently of Nutritional Origin. J. Exp. Med. 53: 11-26, 1931.

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Histories  
AFIP Friday Slide Conference  
12 November 1971

Case I - 71-2181 - An 18-month-old female golden hamster was killed at the termination of a carcinogenesis study. Multiple large cysts were present in the liver, ovaries and kidneys.

Case II - 61-530 - A 6-month-old shorthorn heifer had extensive serous exudative dermatitis involving the legs, neck and back. The hair was matted together and the skin could be peeled off in severely affected areas. Two other calves in the herd were similarly affected.

Case III - 71-776 - A 1-year-old female dark mink was used in a toxicology experiment for 3 weeks. It started showing severe signs of incoordination, cerebellar tremors and anorexia. Death followed 2 days after onset of the signs.

Case IV - 71-P-854 - This section was obtained from tissue of a 12-year-old Doberman Pinscher dog at necropsy.

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Results  
AFIP Friday Slide Conference  
12 November 1971

Case I - 71-2181 - The 18-month-old female golden hamster had polycystic disease.

Ref.: Gleiser, C. A., Van Hoosier, G. L. and Sheldon, W. G.:  
A Polycystic Disease of Hamsters in a Closed Colony.  
Lab. Animal Care, 20: 923-929, 1970.

Case II - 61-530 - The 6-month-old shorthorn heifer had streptothricosis due to Dermatophilus congolensis. Numerous organisms, present in branching, filamentous chains, had both longitudinal and transverse planes of division.

Ref.: Bridges, C. H. and Romane, W. M.: Cutaneous Streptothricosis in Cattle. JAVMA 138: 153-157, 1961.

Case III - 71-776 - The 1-year-old female dark mink had mercury poisoning due to the administration of methyl mercury per os. None of the seminar attendees were able to determine the cause of the condition.

Ref.: Hanko, E., Erne, K., Wannorp, H. and Borg, K.:  
Poisoning in Ferrets by Tissues of Alkyl Mercury-Fed Chickens.  
Acta Vet. Scand. 11: 268-282, 1970.

Case IV - 71-P-854 - The Doberman Pinscher dog had a hemangiosarcoma metastatic to the right ventricle. The primary site was believed to be the skin where a hemangiosarcoma had been surgically removed 4 months earlier. Numerous metastases were also present in other organs.

Ref.: Kleine, L. J., Zook, B. C., and Munson, T. O.: Primary Cardiac Hemangiosarcomas in Dogs. JAVMA 157: 326-337, 1970.

Note: Friday Slide Conference will not be conducted on November 26 because of Thanksgiving holiday.

FRANK A. VOELKER  
Captain, USAF, VC  
Veterinary Pathology Division

Histories  
AFIP Friday Slide Conference  
19 November 1971

*F/AVS* Case I - 34053-A - A 16-year-old female, domestic short-hair cat, who was unsuccessful in jumping over a picket fence, was presented to a veterinary hospital with 2 large necrotic patches in the skin of the ventral abdomen. Several subcutaneous nodules, which had been present for several months, were surgically removed from the same area one week later.

Case II - 7137 - These are sections of ileum from 3 pigs in their first week of life. Each was inoculated orally with a different infectious agent and killed 48 hours later. The pig whose tissue is farthest from the slide label remained normal. The other two developed a severe watery diarrhea within 24 hours post-inoculation and were dehydrated and moribund when killed.

Case III - 691 - This section is from the kidney of a 6-year-old dog and contains an incidental finding.

*H/AVS* Case IV - 19443 - A 7-year-old spayed miniature poodle bitch was presented with a history of anorexia, polyuria, and intermittent vomiting of 3 weeks duration. The dog's weight had declined from 24 to 17 pounds during this period of time. The results of a hemogram were:

RCV 56%	Bands 11%
WBC 14750	Lymphs 5%
Segs 84%	

Therapy was unsuccessful and the dog died 4 days later.

FRANK A. VOELKER  
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Veterinary Pathology Division

Results  
AFIP Friday Slide Conference  
19 November 1971

Case I - 34053-A - The 16-year-old cat had multifocal panniculitis or steatitis, possibly of traumatic origin. One of the slides was restained with the acid fast stain but did not reveal the presence of ceroid.

Case II - 7137 - The normal pig, whose section of tissue was furthest from the slide label, was inoculated with a nonenteropathogenic strain of Escherichia coli. The vacuolated epithelial cells, (enterocytes) are characteristically seen in pigs up to 3 weeks of age. The pig, whose section of tissue is located in the middle, had enteric colibacillosis. Mild histologic changes are frequently seen in many pigs so affected. The last little pig had transmissible gastroenteritis.

- Ref.: 1. Clarke, R. M. and Hardy, R. N.: Histological Changes in the Small Intestine of the Young Pig and their Relation to Macromolecular Uptake. *J. Anat.* 108: 63, 1971.  
2. Moon, H. W., Nielsen, N. O. and Kramer, T. T.: Experimental Enteric Colibacillosis of the Newborn Pig: Histopathology of the Small Intestine and Changes in Plasma Electrolytes. *Am. J. Vet. Res.* 31: 103, 1970.

Case III - 691 - Infraglomerular epithelial reflux, a postmortem phenomenon, was present in the kidney of the 6-year-old dog.

- Ref.: Mullink, J.W.M.A. and Feron, F. J.: Infraglomerular Epithelial Reflux as a Postmortem Phenomenon in the Kidneys of the Dog and Rat. *Path. Vet.* 4: 366, 1967.

Case IV - 19443 - The hepatocytes of the miniature poodle bitch were engorged with glycogen probably as a result of an acute phase of hypoinsulinism due to severe pancreatopathy. The pancreas contained multifocal areas of necrosis as well as a diffuse vacuolar degeneration of both acinar and islet cells. Although hesitant in making definitive correlations, the contributor thought the pancreatic lesions were similar to those described for experimental Coxsackie B4 virus-induced pancreatitis in mice.

- Ref.: Burch, G. E., Tsui, C. Y., Harb, J. M. and Colcolough, H. L.: Pathologic Findings in the Pancreas of Mice Infected with Coxsackie virus B4. *Arch. Int. Med.* 128: 40, 1971.

FRANK A. VOELKER  
Captain, USAF. VC  
Veterinary Pathology Division

Histories  
AFIP Friday Slide Conference  
3 December 1971

*Have all*

Case I - 5306-2A - An adult female Big Brown Bat (Eptesicus fuscus), obtained from a colony that was used for behavioral studies, was killed and necropsied following the experiment.

Case II - 71-P3187 - This section is from tissue of a mature wild eagle found dead.

Case III - 71-2172 - This is a section of tissue from a 2-year-old male horse.

Case IV - W713-64 - A wild adult raccoon was reported to be "stupid" and was wandering aimlessly and without fear when approached. The animal was immediately killed and submitted for pathological evaluation.

\*\*Note: Included is a Giemsa stain of 61-630 which was Case II from the 12 November slide conference.

FRANK A. VOELKER  
Captain, USAF, VC  
Veterinary Pathology Division

Results  
AFIP Friday Slide Conference  
3 December 1971

Case I - 5306-2A - The Big Brown Bat had parasitic nephritis caused by Klossiella sp. The coccidia-like protozoa seen within tubular epithelial cells are undergoing various stages of shizogony.

Case II - 71-P3187 - The eagle had tuberculosis. Bacilli were very numerous and easily visualized with an acid-fast stain.

Case III - 71-2172 - The section of tissue from the horse represented a teratoma which was present in a cryptorchid testicle.

Ref.: Moulton, J. E.: Tumors in Domestic Animals.  
University of Calif. Press, Berkeley and Los Angeles,  
1961, p. 168.

Case IV - W713-64 - The raccoon had canine distemper. The giant cell pneumonitis is a characteristic manifestation of that disease in raccoons. One of the seminar attendees observed and demonstrated the presence of Toxoplasma cysts.

Ref.: Karstad, L., and Budd, J.: Distemper in Raccoons  
Characterized by Giant-cell Pneumonitis. Can. Vet. J.  
5: 326, 1964.

FRANK A. VOELKER  
Captain, USAF, VC  
Veterinary Pathology Division

Review  
AFIP Friday Slide Conference  
20 December 1971

Case I - 70-1067 - The 4-year-old bitch had a dermatitis caused by Pelodera (Pelodera atrypoides) larvae. This parasite is a soil saprophyte, but larvae occasionally produce dermatitis in dogs and cattle usually from contaminated straw used for bedding.

Ref.: Willers, W. B.: Pelodera atrypoides in association with canine dermatitis in Wisconsin. JAVMA 155: 319, 1970.

Case II - 47,234 - The 10-week-old pigs had interstitial and granulomatous pneumonia. Migrating larvae nematodes were present which were identified as being probably those of Ascaris suum. In addition, there was a parasitic hepatitis characterized grossly by the presence of "milk spots."

Case III - 71-5193 - The pigs had perirenal edema and toxic nephrosis caused by Amaranthus retroflexus poisoning. Portions of the plant, including the seeds, were evident in stomach contents. There was gelatinous perirenal fluid and patchial hemorrhages on the kidney.

Ref.: Perirenal Edema (Amaranthus retroflexus poisoning) by W. B. Buck, pp. 799-804, Diseases of Swine, Edited by H. W. Dunne, 3rd Edition, 1970. Iowa State University Press, Ames, Iowa.

Case IV - 70-5887 - The pigs had interstitial pneumonia as well as a broncho-pneumonia. Numerous larval stages of Ascaris suum, possessing lateral flaps, were present in the sections. A virus reacting similarly to a Reovirus Type III of human origin was isolated from the pigs. Subsequently, other pigs were experimentally infected with this agent and a pneumonia resulted which was similar to that observed in the field cases of the disease. These are lung sections of the field case described in the following reference:

Ref.: Robb, M. G., McAnaragh, J. P., Phillips, C. S. and Dicknell, E. J.: Experimental Swine Pneumonia Caused by a Reovirus Type III. VM: SAC 68: 705, Sept. 1971.

Note: Friday Slide Conference will not be conducted Friday, December 31 because of New Year's holiday.

FRANK A. VOGLER  
Captain, USAF, VC  
Veterinary Pathology Division



Histories  
AFIP Friday Slide Conference  
10 December 1971

*Have*

Case I - 70-1067 - A 4-year-old bitch was presented for treatment of a persistent dermatitis involving principally the abdomen and limbs.

*Phobditis  
Strongyloides*

Case II - 27,234 - Twenty 10-week-old shotes were coughing, sneezing, heaving and had fevers up to 106°. They had been purchased from another farm 8 days before the signs appeared, but 10 pigs kept on that farm were never ill. The barn holding the sick animals had been empty for the previous 7 months and had not been cleaned prior to introducing new pigs.

Case III - 71-5193 - Sixteen pigs of a herd of 300 died in one day in late July. They had been put into a new lot one week earlier. Prior to death clinical signs observed were prostration and lethargy. Petechial hemorrhages were noted on the kidneys of the animals which were necropsied.

*Topis  
Nephritis  
Hant  
Pne?*

*Have*

Case IV - 70-5887 AandB - Fourteen of 60 pigs died with signs of dyspnea prior to death. These are representative sections of lung tissue from some of the pigs.

FRANK A. VOELKER  
Captain, USAF, VC  
Veterinary Pathology Division

Histories  
AFIP Friday Slide Conference  
17 December 1971

Case I - 2262 - This section is from tissue of an adult "ex-germfree" Fischer rat reared in a plastic film isolator.

Case II - 2908 - This section is from tissue of an adult ex-germfree Fischer rat given an experimental inoculum 2 weeks previously.

Case III - 2800 - An adult ex-germfree Fischer rat was given an experimental inoculum one month previously.

Case IV - 2972 - A male Long-Evans rat that weighed 254 grams was being used in a behavioral experiment when the investigator observed weight loss, dyspnea and a reluctance to move. The white blood cell count was 12,420 and the hematocrit was 50% just before the rat was killed and necropsied.

Case V - 3032 - From 5 to 10% of experimental and control adult Long-Evans rats died during the course of an experiment. A sick 6-month-old control male rat was subsequently killed and necropsied. This is a section of tissue from that animal.

\*\*\*Note: AFIP Friday slide conference will not be conducted 24 December because of Christmas holidays.

FRANK A. VOELKER  
Captain, USAF, VC  
Veterinary Pathology Division

Results  
AFIP Friday Slide Conference  
17 December 1971

Case I - 2262 - This is a section of normal lung from an adult "ex-germfree" Fischer rat. Note the prevalence of lymphoid cells in the walls of major bronchi for comparison in the cases to follow.

Case II - 2908 - The ex-germfree Fischer rat had early lesions of chronic respiratory disease (CRD) or chronic murine pneumonia (CMP) caused by the intranasal inoculation of  $10^7$  colony-forming units (CFU) of Mycoplasma pulmonis. Although the lung appeared grossly normal, microscopic lesions consisted of peribronchial lymphoid hyperplasia.

Ref.: Lindsey, J. R., Baker, H. J., Overcash, R. G., Cassell, G. H. and Hunt, C. E.: Murine Chronic Respiratory Disease. Am. J. Path. 64: 675-716, 1971.

Case III - 2800 - The ex-germfree Fischer rat had advanced lesions of CRD caused by the intranasal inoculation of  $10^7$  CFU of Mycoplasma pulmonis.

Case IV - 2972 - The male Long-Evans rat had fibrinopurulent pleuritis, pericarditis and mediastinal lymphadenitis caused by Diplococcus pneumoniae. The organism was grown in culture from the pleura and can be seen in the Gram-stained section. In addition, the rat had bronchial lesions which were suggestive of CRD, although this diagnosis was not confirmed with isolation and identification of the etiologic agent.

Ref.: Ford, T.: An Outbreak of Pneumonia in Laboratory Rats Associated with Diplococcus pneumoniae, Type 8. Lab. Anim. Care 15: 443-451, 1965.

Wesbroth, S. J. and Freiman, E. H.: Laboratory Rats from Commercial Breeders as Carriers of Pathogenic Pneumococci. Lab. Anim. Care 19: 471-474, 1969.

Case V - 3012 - The adult Long-Evans rat had pneumonia, mediastinal lymphadenitis and lymphoid depletion of the thymus caused by Corynebacterium kutscheri. It is probable that CRD is present in this case also.

Ref.: Giddens, J. W. E., Bush, M. E., Carter, G. R. and Whitehead, C. F.: Pneumonia in Rats Due to Infection with Corynebacterium kutscheri. Path. Vet. 5: 227-237, 1968.

J. W. NOELKER  
Laboratory Pathologist, VC  
Laboratory Pathology Division

Histories  
AFIP Friday Slide Conference  
7 January 1972

Case I - 8903 - This is a section of tissue from a laboratory mouse that was submitted for necropsy following an experimental procedure.

Case II - 8882 - This is a section of a biopsy specimen from a 1-year-old male burro. The burro was born at Fort Detrick, Maryland where it still resides.

Case III - 8824 (Slides A&B) - A young male rhesus monkey received a subcutaneous inoculation of an infectious agent and died 4 days later.

Case IV - 69CT40 - Numerous nodules 1.0 cm in diameter were surgically removed from the subcutaneous region of the flank of a 5-year-old male Siamese cat. There was recurrence of the tumorous growth at the same site within a year.

FRANK A. VOELKER  
Captain, USAF, VC  
Veterinary Pathology Division

Results  
AFIP Friday Slide Conference  
7 January 1972

*Done all*

Case I - 8903 - The laboratory mouse had cutaneous acariasis caused by Myobia musculi.

Case II - 8882 - The 1-year-old burro had granulomatous epididymitis caused by Besnoitia benetti. This equine parasite is morphologically indistinct from Besnoitia besnoiti.

Ref.: Bigalke, R. D.: Studies on Equine Besnoitiosis. J. Parasit. 56: 29, 1970.

Case III - 8824 - The young male rhesus monkey had experimental yellow fever. The liver lesion was characterized by severe midzonal necrosis and eosinophilic intracytoplasmic inclusions (Councilman bodies) which are possibly of a nonspecific nature.

Case IV - 69CT40 - The five-year-old male cat had a recurrent fibrosarcoma in which the contributor found numerous C-type virus particles. By means of cell-free concentrates he was successful in experimentally transmitting the neoplasm to kittens and puppies.

Ref.: Gardner, M. B., et al.: Experimental Transmission of Feline Fibrosarcoma to Cats and Dogs. Nature. 226: 807, 1970.

FRANK A. VOELKER  
Captain, USAF, VC  
Veterinary Pathology Division

\*\*\*\*Note! Effective February 2, Friday Slide Conferences will be conducted on Wednesdays at the same time and place.

Have all

Results  
AFIP Friday Slide Conference  
14 January 1972

Case I - 70-71 - Guadalupe Samarano and his wife both died of Bubonic Plague (Pasteurella pestis). Their deaths marked the beginning of the 1924 epidemic of plague in Los Angeles. By the time the epidemic had ended, 34 people had perished from the disease.

Case II - 3397-70 - The pancreatic lesion in the rhesus monkey was diagnosed as non-treatment related pancreatic ductular ectasia. This lesion probably begins with obstruction of the terminal ducts, due either to hypertrophy or proliferation of the cells. This leads to secondary focal dilatation of the acini.

Ref.: Walters, M. N.: Studies on the Exocrine Pancreas. I. Non-specific Pancreatic Ductular Ectasia. Am. J. Path. 44: 973-981, 1964.

Case III - 71-4917 - Parasitic thromboembolism of the anterior mesenteric artery due to Strongylus vulgaris was diagnosed in the Arabian colt. Gross post-mortem examination revealed hemorrhagic infarcts of the kidney and colon and hemorrhages in the medial muscles of the hind legs.

Case IV - 71-7877, A and B. - The cause of the abortion in the 2 Hereford heifers was IBR virus. Positive results were obtained by both fluorescent antibody and virus isolation studies.

Ref.: Kennedy, P. C. and Richards, W. P. C.: The Pathology of Abortion Caused by the Virus of Infectious Bovine Rhinotracheitis. Path. Vet. 1: 7-17, 1964.

FRANK A. VOELKER  
Capt., USAF, VC  
Veterinary Pathology Division

\*\*\*\*Note! Effective February 2, Friday Slide Conferences will be conducted on Wednesdays at the same time and place.

Histories  
AFIP Friday Slide Conference  
14 January 1972

Case I - 70 - 71 - In October 1924 Guadalupe Samarano, a 37-year-old male, became critically ill and was admitted to a Los Angeles hospital in a semi-comatose condition. He had respiratory difficulties, swollen hemorrhagic tonsils, and a temperature of 106°. On autopsy splenomegaly and widespread petechiation was observed. Three days previous to his death Mr. Samarano's wife died of the same disease.

Case II - 3397-70 - This section is of tissue from a mature male rhesus monkey. Although the monkey was from a chronic toxicity experiment, the lesions were thought to be incidental.

Case III - 71-4917 - A 3-month-old Arabian colt became depressed, incoordinated, and finally comatose. The animal died about 48 hours after the first signs of illness were observed. The owner was quite concerned about the possibility of Venezuelan equine encephalitis.

Case IV - 71-1877 - A and B - In a large herd of Hereford cattle 2 heifers were observed to abort. Both heifers were recent additions to the herd and had been vaccinated in calfhood against brucellosis. These sections are of tissues from the placenta and fetus of one of the abortions.

FRANK A. VOELKER  
Captain, USAF, VC  
Veterinary Pathology Division

Results  
AFIP Friday Slide Conference  
14 January 1972

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Ref.: Kennedy, P. C. and Richards, W. P. C.: The Pathology of Abortion Caused by the Virus of Infectious Bovine Rhinotracheitis. Path. Vet. 1: 7-17, 1964.

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\*\*\*\*Note! Effective February 2, Friday Slide Conferences will be conducted on Wednesdays at the same time and place.



Histories  
AFIP Friday Slide Conference  
21 January 1972

Case I - 264 - This is a section of tissue from a cat with splenomegaly.

Case II - 5045 - This is a section of intestine from a cat.

Case III - 4668 A and B - A 5-month-old cat had "hemorrhagic disease" and clinical signs of abnormal bone development.

Case IV - 2967 - A male Long-Evans rat that weighed 224 grams was being used in a behavioral experiment when it died unexpectedly.

FRANK A. VOELKER  
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*Have all*

Results  
AFIP Friday Slide Conference  
21 January 1972

Case I - 264 - Erythemic myelosis was diagnosed in this cat. Many metarubricytes were seen in the tissue section in association with large undifferentiated cells that were presumably erythrocyte precursors. The bone marrow, spleen, and some lymph nodes were also infiltrated.

Ref.: Ward, J., et al.: Myeloproliferative Diseases and Abnormal Erythrocytogenesis in the Cat. JAVMA 155: 879-888, 1969.

Case II - 5045 - The intensely eosinophilic cells seen in the mucosa and lamina propria of the large section of intestine were identified as globule leucocytes. The origin and function of these cells in the cat is unknown. The small section of intestine was from a neonate. The eosinophilic globules seen in the epithelium represent macromolecules of protein absorbed from the colostrum.

Ref.: Akio, et al.  
The Globule Leucocyte in the Intestinal Mucosa of the Cat:  
A Histochemical, Light, and Electron Microscopic Study.  
Anat. Rec. 164: 79-99, 1969.

Case III - 4668 - A and B. Myelofibrosis with myeloid metaplasia in the lymph node and radiation induced rickets was diagnosed in this cat. The animal had been fed 50 microCuries of Strontium-89 for 30 days at 2 months of age.

Case IV - 2967 - The liver lesion was diagnosed as a pneumococcal hepatitis. No other lesions were present in the animal. In the contributors experience, pneumococcal infections in rats with lesions limited to one or more sub-diaphragmatic visceral organs has been rather common.

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\*\*\*\* Note! Effective February 2, Friday Slide Conferences will be conducted on Wednesdays at the same time and place.

Histories  
AFIP Friday Slide Conference  
28 January 1972

Case I - 70-350 - A dorcas gazelle (Gazella dorcas) was hand-fed with a bottle because it was too weak and small to be adequately cared for by its mother. After progressive debilitation it died 2-1/2 weeks later.

Case II - 71-D-98 - A young female opossum died several days after a laparotomy. At necropsy, a firm 1.5 cm. raised lesion was present on the dorsal lateral aspect of the left diaphragmatic lobe of the lung. The lesion was characterized by a firm, white center surrounded by a diffuse zone of hemorrhage and consolidation. Several smaller lesions were found throughout other lobes.

Case III - 5761 - A marmoset died after 2 months of continuous weight loss. At necropsy, numerous cysts were present on the serous surfaces of the lung, liver and rectum. In addition, focal ulceration was observed in the ileum.

Case IV - 606A - A 5-year-old male German shepherd dog had bilaterally cryptorchid testes. The left testis was enlarged, lobulated and had adhesions connecting it to surrounding tissue.

FRANK A. VOELKER  
Captain, USAF, VC  
Veterinary Pathology Division

Results  
Friday Slide Conference  
28 January 1972

Have all

Case I - 70-350 - Muscular dystrophy and dietetic hepatic necrosis was diagnosed in the gazelle. The lesions were considered to be the result of vitamin E and/or selenium deficiency.

Case II - 71-D-98 - Pulmonary nocardiosis was diagnosed in the opossum. Numerous Gram positive, acid-fast positive filamentous organisms with a beaded appearance were seen in the lung section. These were identified morphologically as Nocardia spp.

Case III - 5761 - The parasite present in the liver cyst was identified as a Linguatulid nymph (Porocephalus spp.). The final host of this organism is large snakes, where it resides in the lung.

Case IV - 606A - The lesion in the dog testicle was diagnosed as an interstitial cell tumor.

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Note!! Effective February 2, Friday Slide Conferences will be conducted on Wednesdays at the same time and place.

Histories  
AFIP Wednesday Slide Conference  
2 February 1972

Case I - 4053 and 4027 - These are sections of tissues from a mature dog.

Case II - 3550 - This is a section of tissue from a fox trapped during a wildlife survey at Fort Belvoir, Virginia. The contributor reported that the animal had a serological titer that was positive for blastomycosis.

Case III - 4035 - A 7 x 10 cm. mass was surgically removed from the pectoral region of a 10-year-old German shepherd dog and submitted for histopathological diagnosis.

Case IV - 71-3994 - A "first-calf" Holstein heifer aborted during her seventh month of gestation. One week previous to the abortion she had been placed in a lot with 25 older cows. This is a section of a portion of the thickened placenta.

FRANK A. VOELKER  
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\*\*\*\*\*Note! Effective February 2, Friday Slide Conferences will be conducted on Wednesdays at the same time and place.

Results  
AFIP Wednesday Slide Conference  
2 February 1972

Case I - 4053 and 4027 - This was an experimental case of salmon poisoning in a dog. The intracytoplasmic bodies of Neorickettsia helminthoeca could be seen in mononuclear cells in the lymph nodes. The trematode Nanophytes salmincola, the vector of salmon poisoning, could be seen in the intestine.

Case II - 3550 - A morphologic diagnosis of focal, disseminated, granulomatous pneumonia was made. The etiologic agent was Paragonimus kellicotti.

Case III - 4035 - The mass removed from the pectoral region of the dog was diagnosed as an extraskeletal osteosarcoma.

Case IV - 71-3994 - The abortion was due to a mycotic placentitis. Rhizopus arrhizus was cultured from the placenta.

Ref.: Hillman, R. B. and McEntee, K.: Experimental Studies on Bovine Mycotic Placentitis. Cornell Vet. 59: 289-302, 1969.

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Histories  
Wednesday Slide Conference  
9 February 1972

Case I - 40518 - This is a section of brain from a yearling hereford steer that showed signs of circling and incoordination for two days before death.

Case II - 41309 - In April of 1971 an aborted equine fetus had a liver in which numerous tiny pale foci were observed at necropsy.

Case III - 42704 - This is a section of liver from a 5-month-old, non-vaccinated, mixed-breed dog. At necropsy icterus, generalized hemorrhage and a mottled liver were observed.

Case IV - 42756 - A 3-1/2-year-old Guernsey cow had marked weight loss and a diarrhea of 2 months duration.

FRANK A. VOELKER  
Captain, USAF, VC  
Veterinary Pathology Division

Results  
AFIP Wednesday Slide Conference  
9 February 1972

Have all

Case I - 40518 - Listeria monocytogenes was cultured from the brain of the yearling hereford steer.

Case II - 41309 - Abortion of the equine fetus was caused by the virus of equine viral rhinopneumonitis (equine viral abortion). Focal areas of necrosis and also eosinophilic intranuclear inclusions were observed microscopically in the liver.

Case III - 42704 - The 5-month-old dog had infectious canine hepatitis. Characteristic intranuclear inclusions were present within hepatocytes.

Case IV - 42756 - The 3-1/2-year-old Guernsey cow had Johne's disease. With an acid fast stain, organisms of Mycobacterium paratuberculosis were easily visualized.

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Histories  
AFIP Wednesday Slide Conference  
23 February 1972

Case I - K-71-1208 - This section is of tissue from a trout (Salvelinus fontinalis) caught in a creek on July 24, 1971.

Case II - 21136 - A 10-year-old male Boston terrier dog had clinical signs of anorexia, dyspnea and listlessness. Examination revealed a heart rate of 212 with no audible cardiac sounds. The results of a hemogram on that date were: PCV 39%, WBC 10000, segs 77%, stabs 5%, eos 5%, lymphs 13%, 1 nuc RBC. On the eleventh day of illness the dog was moderately icteric and had a temperature of 99.0° in addition to the other clinical signs. The heart rate was moderately increased and there was a weak thready pulse. Shortly thereafter the dog's condition rapidly deteriorated and he died.

Case III - 5066-10 - An 11-year-old cachectic, chronically ill male cat was euthanatized after supportive treatment failed to improve his condition. The BUN was 28 mg/100ml and the blood glucose was 154 mg/100ml.

Case IV - 20115 - This is a section of tissue obtained at necropsy of a 7-year-old male husky dog.

FRANK A. VOELKER  
Captain, USAF, VC  
Veterinary Pathology Division

\*\* Note!! Slide 42756 is an acid fast stain of Case III from the 9 January Wednesday Slide Conference.

Have all

Results  
AFIP Wednesday Slide Conference  
23 February 1972

Case I - K-71-1208 - The trout had black spot disease, a condition common in many species of freshwater fish. The trematode parasite, Neodiplostomum cuticola, was probably the cause in this case.

Ref: Diseases of Fishes. 2nd ed. C. van Duijn Iliffe Books,  
London, pp. 31-32.

Case II - 2113 - The 10-year-old male Boston terrier dog had an aortic body tumor.

Case III - 5066-10 - The 11-year-old male cat had amyloidosis of the islets of Langerhans of the pancreas. A congo red stain was positive for amyloid and had green birefringence under polarized light.

Ref: Rubarth, S.: The Degeneration of Amyloid in the Langerhan's Cell Islands as the Cause of Diabetes Mellitus in the Cat.  
Skand. Vet. Tidskr. 25: 750, 1935.

Case IV - 20115 - The 7-year-old male husky dog had a cryptorchid testis containing a neoplasm. Although the contributor thought it to be a papillary cystadenoma of the epididymis, a number of seminar attendees felt it was a Sertoli cell tumor. In addition, a seminoma in situ was present in adjacent testicular tissue.

FRANK A. VOELKER  
Capt., USAF, VC  
Veterinary Pathology Division

Historical  
AFIP Wednesday Slide Conference  
1 March 1972

Case I - 43 - and Case II - 33003 - A pathologist was cleaning out his desk drawer and discovered 2 slides.

Case III - (not numbered) - The same pathologist discovered another slide in the pocket of his old blue suit.

Case IV - 20900 - An 8-month-old St. Bernard dog had a clinical history of posterior ataxia, hemorrhagic diarrhea, anorexia and listlessness. The results of a hemogram shortly before death were: PCV 62%, HB 20.3 mg%, RBC  $9.37 \times 10^6$ , WBC 16700, Segs 70%, Stabs 11%, Lympo 13%, Mono 6% and platelets adequate. An SMA-18 serum analysis on the same date gave the following results: T.P. 6.1 gm%, Alb 1.5 gm%, Ca 12.6 mg%, Inor. Phos. 13.2 mg%, Chol 315 mg%, Uric Acid 1.5 mg%, Creat. 4.5 mg%, T. Bil. 0.6 mg%, Alk. Phos. 195 m<sub>N</sub>/ml, CPK 360 m<sub>N</sub>/ml, LDH 195 m<sub>N</sub>/ml, SGOT 75 m<sub>N</sub>/ml, Cl 88 meq / l., CO<sub>2</sub> 5.5 meq / l., k 3.3 meq / l., Na 142 meq / l., BUN 120 mg%, Glu. 175 mg%.

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Results

1 slide ~~don't~~ unknown AFIP Wednesday Slide Conference  
1 March 1972

Case I - 43 - This is a section of lung from a California sea lion (Zalophus californiensis). The extension of abundant cartilage to the terminal bronchioles and respiratory ducts characterizes the lungs of diving marine mammals of this type. The numerous helminth parasites present throughout the section are Parafilaroides decorus. A vertebrate intermediate host, the "opaleye" (Girella nigricans), is a coprophagous fish which transmits infective larvae when it is eaten by the sea lions.

Ref: Mammals of the Sea. Ed. Ridgway, S. H., Charles C. Thomas Pub., Springfield, Ill., 1972.

Migaki, G., Van Dyke, D., and Hubbard, R. C.: Some Histopathological Lesions Caused by Helminths in Marine Mammals. J. Wildlife Dis. 7: 281, 1971.

Case II - 33003 - These are sections of tissue from a California sea lion which also had Parafilaroides decorus infestation. An interstitial nephritis was present caused by leptospirosis. A serological diagnosis of Leptospira pomona was made.

Ref: Vedros, N. A., Smith, A. W., Schonewald, J., Migaki, G. and Hubbard, R. C.: Leptospirosis Epizootic among California Sea Lions. Science, 172: 1250, 1971.

Have Case III - (not numbered) - This section is from a sheep infected by the immature stage of Cysticercus tenuicollis. The morphology of these parasites should be differentiated from that of the fluke, Fasciola hepatica.

Have Case IV - 20900 - The 8-month-old St. Bernard Dog had hypoadrenocorticalism caused by adrenocortical necrosis of undetermined etiology. Of interest is the lymphoid hyperplasia which might be attributed to glucocorticoid deficiency.

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Historics  
AFIP Wednesday Slide Conference  
8 March 1972

Case I - 71-35 - An aged mongrel bitch had clinical signs of dyspnea, diarrhea and emaciation. She was killed in order to utilize several mammary neoplasms that she had for experimental purposes. Bilateral pneumonia, enteritis and thickening of the urinary bladder mucosa were observed on necropsy of the dog.

Case II - 71-77 - A 2-1/2-year-old cat had lameness in the right rear leg, and subsequently, the head of the femur was surgically removed. Radiographs revealed numerous areas of osteolysis in the skeleton. A hemogram was performed and the cat was found to have anemia and leucocytosis.

Case III- 70928-6 - Three pigs became listless and anorectic and then died. Their skin was covered with numerous red blotches. On necropsy white foci, measuring 1 mm to 1 cm in diameter, were present in the kidneys, liver, and adrenal glands.

Case IV - 6957-7 - This is a section of tissue from a horse that was inoculated experimentally. The horse had signs of anorexia, circling and lethargy. It died in 3 days after becoming comatose.

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Have all

Results  
AFIP Wednesday Slide Conference  
8 March 1972

Case I - 71-35 - The aged mongrel bitch had multifocal transitional cell carcinomas of the urinary bladder. Distemper inclusion bodies were present in both the cells of the normal urinary bladder epithelium and the neoplasm.

Case II - 71-77 - The lameness of the 2-1/2-year-old cat was caused by infiltration of the femoral head the round ligament by large cells of unknown origin. Despite extensive consultation, a definitive diagnosis was never made, but considerations included a metastatic or primary neoplasm, granulomatous inflammation, and lipid storage disease. The spleen of the cat on necropsy was reported to be filled with similar appearing cells. It was the opinion of most seminar attendees that the lesion was neoplastic in nature in view of the extensive cellular invasion.

Case III - 70928-6 - The 3 pigs had actinobacillosis. Actinobacillus equuli was isolated and used to reproduce the disease.

Ref: Jones, J. E. T. and Simmons, J. R.: Endocarditis in the Pig Caused by Actinobacillus equuli: A Field and an Experimental Case. Br. Vet. J. 127: 25, 1971.

Szery, A.: Zur Histopathologie fer von Bacterium pyosepticum Vercursachten Erkrankungen fer Pferde und Schweine. Acta Veterinaria 12: 145, 1962.

Case IV - 6957-7 - The horse had western equine encephalomyelitis.

Ref: Innes, J. R. M. and Saunders, P. Z.: Comparative Neuropathology. Academic Press, 1962.

Hurst, E. W.: The Histology of Equine Encephalomyelitis. J. Exp. Med. 59: 529, 1934.

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Histories  
AFIP Wednesday Slide Conference  
15 March 1972

Case I - 267-71 - A 1-year-old black whiteface calf had a 2-3 week history of not eating, losing weight, and acting belligerent. He had been treated symptomatically, but without response, and was subsequently killed because his condition was rapidly deteriorating. The slide contains a representative section of the liver.

Case II - 1069-70 - A 13-year-old female terrier dog had a pendulous growth within an ear canal and a subcutaneous tumor on the back. The tumor from the back was diagnosed as a chronic inflammatory pseudotumor. This is a representative section taken from the mass in the ear canal.

Case III - 180-71 - A 2-year-old rat had a mass in the right horn of the uterus measuring 0.25 cm. in diameter. A smaller mass was also present in one lung.

Case IV - 71-162 - A farmer lost 25 of the last 40 calves that he had purchased 4 weeks earlier. The first clinical signs were stiffness, reluctance to move, and swelling of some joints. The calves became lame and unable to rise. Soon after, the calves became anorectic, dyspneic, and then died 3 to 5 days after the onset of the first signs.

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Have all

Results  
AFIP Wednesday Slide Conference  
15 March 1972

Case I - 267-71 - The 1-year-old whiteface calf had pyrolizidine alkaloid toxicity caused by the plant Senecio jacobea. Megalocytosis, characterized by the presence of many large hepatocytes, was present throughout the section. In addition, there was prominent segmentation of the lobules by thin septae of fibrous connective tissue. It has been stated that almost all cases of chronic diffuse sclerosing hepatitis in cattle are caused by ingestion of poisonous plants.

Ref: Poisonous Plants of the United States and Canada (Kingsbury, J.M. ed.), Prentice Hall, Inc., Englewood Cliffs, New Jersey, pp. 1-626, 1964.

Case II - 1069-70 - The 13-year-old female terrier had a ceruminous gland adenocarcinoma. Varying degrees of differentiation and also a number of different patterns of growth were observed within the glandular component of the neoplasm. There was apparent continuity of neoplastic cells with the surface epithelium. In addition, the appearance of myxoid degeneration of the stroma and an associated cartilaginous component suggest that this neoplasm should be classified as "mixed". Not all seminar attendees thought that the neoplasm was histologically malignant.

Case III - 180-71 - The morphological characteristics of the neoplasm in the 2-year-old rat are the same as those that have been reported for carcinosarcomas of the human uterus. The most pertinent feature of the neoplasm is the sarcomatous appearance of the stroma which is oriented around the neoplastic glandular component. The neoplasm in the lung was apparently metastatic from the primary mass in the uterus.

Ref: 1. Czernobilsky, B., and LaBarre, G.C. Carcinosarcoma and Mixed Mesodermal Tumor of the Ovary. A Clinicopathologic Analysis of 9 Cases. *Ob. Gyn.* 31:21, 1968.

2. Norris, H. J. and Taylor, H. B. Mesenchymal Tumors of the Uterus. III A Clinical and Pathologic Study of 31 Carcinosarcomas. *Cancer* 19:1459, 1966.

3. Dehner, et al. (title not known) *Cancer* 27:207, 1971.

Case IV - 71-162 - The calves had a Mycoplasma infection. Mycoplasma sp. was isolated from the lung, joint swab, synovial membrane and peritoneal fluid. histopathological lesions observed were described as follows:



Results  
15 MAR 72

polyserositis, non-suppurative meningitis, hemorrhage in the zona fasciculata of the adrenal and bronchopneumonia. A number of seminar attendees were correct in their opinion concerning the etiology.

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Histories  
AFIP Wednesday Slide Conference  
22 March 1972

Case I - 71-680 - An adult female New Zealand white laboratory rabbit, approximately 1-year-old, had clinical signs of dyspnea, torticollis, and unilateral exophthalmia. The rabbit was subsequently killed. At necropsy the right lung contained a mass 7 cm. in diameter and the left lung had a mass 3 cm. in diameter.

Case II - 71-266 - An 8-month-old female miniature pig experimentally received 725 rads of gamma radiation but died prematurely within 6.8 days of unexpected causes.

Case III - 2770-3-71 - This is a section of a fetus from a New Zealand white rabbit at the 30th day of gestation. On the slide near the inked line a section of normal fetal kidney of a similar age is included.

Case IV - 69-2002 (A and B) - These are sections of tissue from a 6-year-old airdale bitch that had pyometra.

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\*\*\*\*Note: Wednesday slide conference will not be conducted on 29 March because the 12th AFIP Annual Lectures are being held during that week.

Done  
aid

Results  
AFIP Wednesday Slide Conference  
22 March 1972

Case I - 71-680 - The New Zealand white laboratory rabbit had an abscess of the lung consisting of a caseous center surrounded by a granulomatous zone with heavy accumulations of heterophils. No growth occurred in cultured lung specimens and no bacteria were detected in Gram stained sections of lung and abscesses. Purulent otitis media also was present but cultures were not taken. In the opinion of the contributor and the seminar attendees, the causative agent was probably Pasteurella multocida.

Case II - 71-266 - The 8-month old female miniature pig had myocardial necrosis and gaseous separation of myocardial fibers caused by proliferation of gas-producing bacteria. A traumatic pericarditis was present that resulted from ingestion of a wire with subsequent penetration of the stomach, diaphragm and pericardium. Although bacterial organisms were not cultured, their morphology in tissue section was considered compatible with that of Clostridium spp.. The absence of inflammatory response to the bacteria was a result of severe bone marrow depression produced by radiation exposure. The pig was necropsied 2 hours after death. \*

Ref: Jones, S.R. Traumatic Pericarditis in a Miniature Pig.  
AFRRI Technical Note (in preparation Aug. 1971)

Case III - 2770-3-71 - The fetus from the New Zealand white rabbit had bilateral hydronephrosis as indicated by dilatation of the renal pelvises.

Case IV - 69-2002 - The 6-year-old Airdale bitch had a dysgerminoma with metastasis to the spleen. In the ovary nodular masses, representing enlarged corpora lutei, were invaded by neoplastic cells.

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Historical  
AFIP Wednesday Slide Conference  
5 April 1972

Case I - 482a - These are sections of tissue from a mouse.

Case II - 5363 - Several adult Syrian hamsters were injected intraperitoneally with a splenic homogenate from another Syrian hamster. Four months later the hamsters became grossly edematous and had large amounts of clear, straw-colored intraperitoneal fluid. Necropsy findings included large pale kidneys, large grey-white adrenal glands and a mottled, slightly enlarged spleen.

Case III - 70-P-7-7 - This is a section of brain from a 7-week-old pig that had signs of posterior paresis, prostration and "padding" over a 2-day period. The pig was killed and necropsied.

Case IV - 126169 - A 7-year-old Burmese cat from Cambodia had signs of anorexia and lethargy for 4 days. The animal was dehydrated and its rectal temperature was 103.6°F. A palpable mass was present in the abdomen. The cat was killed following exploratory surgery when the extent of the mass was realized.

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Results  
AFIP Wednesday Slide Conference  
5 April 1972

GF

Case I - 4926 - The mouse was inoculated intraperitoneally with Besnoitia jellisoni organisms 3 1/2 months previously.

Case II - 5363 - The hamsters had visceral leishmaniasis caused by Leishmania donovani. The organisms were from a special strain, the Sudan strain, utilized to induce amyloidosis. The kidneys in this case were severely involved. Some of the seminar attendees attributed the severe ascites of the hamsters to either the renal amyloidosis or to increased portal venous pressure in the liver caused by inflammation.

Refs: ① Gelhorn, A., van Dyke, H. B., Pyles, W. J., and Tupikova, N. A., Amyloidosis in Hamsters with Leishmaniasis. Proc. Soc. Exp. Biol. Med. 61:25, 1946.

② Abruzzo, J. L., Gross, A. F., Christian, C. L. Studies on Experimental Amyloidosis. Brit. J. Exp. Path. 47:52, 1966.

Case III - 70-P-747 - The 7-week-old pig had focal encephalomalacia and arteritis associated with edema disease. The pig had edema of the gastric <sup>sub</sup>mucosa and E. coli was cultured from the tissues. In the brain focal areas of malacia were found in the caudate nucleus, internal capsule, thalamus, mesencephalon and medulla. The lesions were not bilaterally symmetrical although both sides of the brain were involved. Vascular lesions consisted of fragmentation and homogenization of walls of small arteries with endothelial cell swelling.

Ref: Kurtz, H. J., Bergeland, M. E. and Barnes, D. M.  
Pathologic Changes in Edemas Disease of Swine. Am. J. Vet. Res.  
30: 791, 1969.

Case IV-1261169 - the mass in the 7-year-old cat's stomach contained a sparganum of Spisometra ~~mansuetor~~ sp.  
A sparganum is an intermediate stage of certain pseudophyllidean tapeworms and is normally found in various species of fish and small vertebrates. The cat could have been infected by ingesting either <sup>plero</sup>procercoid larvae encysted in the above mentioned hosts or ~~by~~ copepods infected with the ~~pro~~procercoid stage. Although the sparganum had little internal structure, basophilic calcareous bodies were ~~by~~ distinctively present.

Ref: Schmidt, R. E., Reid, J. S. and Garner, F. M.  
Sparganosis in a Cat. J. Small Anim. Pract. 9: 1, 1968.

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Mouse - Kidney lesions. Cuboidal cells not in glomerulus  
therefore a female. Montgomery  
Some of sections had no kidney

Internal capsule.

L. donovani

Sudan stain

Strain used to induce amyloid

(Splenic homografts

6 wks - 2 mos.

SubQ - a little longer

) to get  
Amyloid.

Severe ascites

ass.  $\bar{c}$  renal amyloidosis

$\uparrow$  portal pressure in liver due  
to inflamm.

Results  
AFIP Wednesday Slide Conference  
12 April 1972

Case I - 1283220 - The Nelson bighorn sheep had amoebiasis characterized by granulomatous lymphadenitis and rhinitis. Although the organisms could not definitively be identified as to genus and species, a classification in the family Amoebidae was established by most seminar attendees. The organisms were large, circular, either basophilic or eosinophilic, and possessed a prominent round dense nucleus. A Gomori's methenamine silver stain did not reveal any definitive encysted forms.

Case II - 70-P-750 - The 9-week-old Arabian colt had an adenoviral infection. At necropsy there was lobular consolidation and atelectasis of both lungs especially in the region of the cardiac notch, pale to translucent moist lymph nodes, pancreatic edema, and a small spleen with no visible splenic follicles. Histologic lesions included characteristic adenoviral inclusions in areas of hyperplastic epithelium of the respiratory tract, conjunctiva, urinary mucosa, pancreas and salivary glands. Lymphoid follicular atrophy, hepatic degeneration and anterior uveitis were seen but were not accompanied by inclusions.

Ref.: McChesney, A. E., England, J. J., Adcock, J. L.,  
Stackhouse, L. L., and Chow, T. L.: Adenoviral Infection  
in Suckling Arabian Foals. Path. Vet. 7: 547, 1970.

Case III - 71R156 - The horse was experimentally inoculated with equine viral arteritis virus. Histologically, the heart lesion was characterized as a nonsuppurative necrotizing myocarditis.

Case IV - 20481 - There was a globular degenerative adrenalopathy in the adrenal medulla of the 12-year-old poodle dog. This form of degeneration is rare in the dog and of unknown etiology. Although their histochemical staining properties are unremarkable, with the electron microscope they appear as nonmembrane bound, uniformly finely granular, moderately electron dense cytoplasmic bodies. The dog also had a necrotizing pancreatitis and a nodular hyperplasia of the spleen. None of the seminar attendees observed the globules in the adrenal medulla, and instead, diagnosed the cortical hyperplasia which was also present.

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Histories  
AFIP Wednesday Slide Conference  
19 April 1972

Case I - 2581 - This is a section of tissue from a Syrian hamster. The lesion was experimentally induced.

Case II - K70-788 - A 1-month-old Holstein calf suddenly became ill and died. It was tied behind cows and had been nursing. Chemical analysis revealed 335 ppm lead in the kidney.

Case III - LLE-15550 - This is a section of tissue from a 775-day-old female RF mouse that was used as a control animal from a low level radiation experiment.

Case IV - 70-18839 - This section is from a large mass in the left kidney of a C57BL/6 mouse.

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Results  
AFIP Wednesday Slide Conference  
19 April 1972

*Nov* Case I - 2581 - The Syrian hamster had a squamous cell carcinoma of the cheek pouch. The lesion was induced by painting the buccal pouch 3 times weekly for 9 weeks with 0.5% 7, 12 dimethyl-benzanthracene (DMBA). In a group of hamsters so treated, small nodular lesions were present in pouches after 6 weeks. By 9 weeks the majority of hamsters had one or more neoplasms in each pouch measuring from 1 to 12 mm. in diameter. These carcinomas are locally invasive and only rarely metastasize to regional lymph nodes.

Refs: Salley, J. J.: Experimental Carcinogenesis in the Cheek Pouch of the Syrian Hamster. J. Dent. Res. 33:253, 1954.  
Morris, A.L.: Factors Influencing Experimental Carcinogenesis in the Hamster Cheek Pouch. J. Dent. Res. 40:3, 1961.

Case II - K70-788 - The heart of the 1-month-old Holstein calf contained heterotopic epithelial inclusions caused by displacement of epithelial tissue during cardiac embryogenesis. The numerous acinar or duct-like structures, that were observed, are said to be derived from gut endoderm, and more specifically, from prospective pharyngo-oesophageal or thyroglossal endoderm. Most seminar attendees thought the lesion was hamartomatous, but strict definition of a hamartoma excludes involvement of heterotopic tissue elements. The heart lesion was an incidental finding and not associated with the cause of death, lead toxicosis.

Ref: Jolly, R.D.: Epithelial Inclusions of a Bovine Heart. J. Comp. Med. Vet. Sci. 29:232, 1965.

Case III - LIE-15550 - The female RF mouse had thymic lymphoma and cystic hyperplasia of the uterus, both of which are common lesions in aged RF mice.

Case IV - 70-18839 - The large mass in the left kidney of the C57BL/6 mouse was a Staphylococcal granuloma. Staphylococcus aureus was isolated in pure culture from the lesion.

Histories  
AFIP Wednesday Slide Conference  
26 April 1972

Case I - 178A - A 3-year-old male German shepherd dog had several rapidly enlarging masses in the perineal region and lateral to the tailhead.

Case II - 625A - A mass 1.5 cm in diameter was surgically removed from the skin of the base of the neck of a 4-year-old female Bouvier des Flandres dog.

Case III - 395A - An egg-shaped tumor was surgically removed from the ventral aspect of the base of the right tusk of an African elephant (Loxodonta africana).

Case IV - 411 - This is a direct peripheral blood film from an adult rhesus monkey that was in an experiment for 8 months. Hematologic values are as follows:

WBC 13,800  
RBC  $4.5 \times 10^6$   
Hb 8.9  
PCV 32.8  
MCV 73  
MCH 20.3  
MCHC 27.7

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Results  
AFIP Wednesday Slide Conference  
26 April 1972

*Have all*

Case I - 178-A - The rapidly enlarged masses in the 3-year-old German Shepherd dog were characterized by the contributor as those of an atypical perianal gland carcinoma. Since most of the seminar attendees felt that a transmissible venereal cell tumor could not be ruled out, considerable discussion ensued.

Case II - 625A - According to the contributor, the 4-year-old female Bouvier des Flandres dog had a hair matrixoma (Trichoepithelioma). Masses of keratin pigmented with melanin were surrounded by epithelial cells. In addition, melanin containing cells, inflammatory cells and masses of bone were found in association with the tumor.

Case III - 395A - The egg-shaped tumor from the base of the tusk of the African elephant was diagnosed as an inflammatory polyp. Histologic examination revealed a myxomatous-appearing matrix in which these were blood vessels oriented in a parallel fashion and also the presence of numerous inflammatory cells. Most seminar attendees agreed that the lesion was inflammatory in nature.

Case IV - 411 - The adult rhesus monkey had lead poisoning. According to the contributor, it would have been impossible to arrive at this diagnosis on the basis of the blood smear alone. The blood smear was characterized by the presence of basophilic stippling, poikilocytosis, anisocytosis, target cells and spherocytes.

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Histories  
AFIP Wednesday Slide Conference  
3 May 1972

Case I - 8932 - A 6-month-old female standard poodle dog had gradually worsening periods of dyspnea for 6 months prior to euthanasia. On necropsy a 2-1/2 by 1-1/2 cm. reddish, partially pedunculated mass was observed in the trachea 2 cm. posterior to the larynx.

Case II - 8843 - This is a section of tissue from a young rhesus monkey kept on an experimental diet for 6 months.

Case III - 41489 - This is a section of gluteal muscle from a 9-month-old female Holstein heifer.

Case IV - C-7- A man had a history of coughing and had terminal symptoms of bronchopneumonia.

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Dave all

Results  
AFIP Wednesday Slide Conference  
3 May 1972

Case I - 8932 - The 6-month-old female standard poodle dog had a tracheal mass characterized by the contributor as an amyloid tumor. Several of the seminar attendees thought the mass represented a medullary thyroid carcinoma.

Case II - 8843 - The young rhesus monkey had eosinophilic intracytoplasmic inclusion bodies of unknown etiology in the transitional epithelium of the urinary bladder and ureter. They were not considered to be viral inclusions.

Case III - 41489 - The 9-month-old Holstein heifer had blackleg. Clostridium chauvei was identified using fluorescent antibody stained impression smears.

Case IV - C-7 - Pneumocystis carinii was identified as the cause of pneumonia in the man.

Ref: Hamperl, H.: Variants of Pneumocystis Pneumonia.  
J. Path. Bact. 64: 353, 1957.

Barton, E. G. and Campbell, W. G.: Further observations on the ultrastructure of Pneumocystis. Arch. Path. 83: 527, 1967.

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Have all

Histories  
AFIP Wednesday Slide Conference  
10 May 1972

Case I - 71-254-F5 and F2 (2 slides) - An army scout dog in South Vietnam died enroute to the animal hospital. He had a clinical history of leukopenia for 7 months previous to death and there was intermittent hemorrhage from the anus, nose and urinary tract during this period. In addition, the dog was febrile and had pyoderma and scrotal edema. *Nellidosis Pseudomonas pseudomallei*

Case II - 71-254-F19 - The army scout dog in Case I had a tongue that was reddened and devoid of papillae on the anterior 1/3 of its dorsal surface.

*RED Tongue*

Case III - 10505 - This is a section of tissue from a 6-week-old duckling. The lesion represents an incidental finding during slaughter of the duck.

*Bumble foot Staphylococcus aureus*

Case IV - 71-D-84 - An adult female Macaca mulatta was obtained from a local zoo. After several uneventful years in the facility, she was found to have a necrotizing infection of the gingiva. Several lower incisors were removed and both local and systemic treatment initiated. The animal became progressively debilitated and died within 48 hours. Examination of serial blood samples taken several months before the onset of illness demonstrated a progressive increase in absolute lymphocytes with many immature forms. This reached a maximum of 14,000 (absolute) lymphocytes. A CBC taken the day before death revealed a decline of absolute lymphocyte values of 8,500, but an increase in monocytes (absolute) to 1,400. *Malignant Lymphoma*

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Results  
AFIP Wednesday Slide Conference  
10 May 1972

Case I - 71-254-F5 and F2 - The Army scout dog had melioidosis caused by Pseudomonas pseudomallei. The disease is occasionally seen in military working dogs in Southeast Asia and the lesions are characterized by suppurative inflammation in many organs. A definitive diagnosis of the disease should be accompanied by appropriate cultural or serological identification. The skeletal muscle of the same dog in Case II was a previous rabies vaccination site and thought to be the route of entry of the organism.

Case II - 71-254-F19 - The Army scout dog in Case I also had "redtongue" or chronic atrophic glossitis. This disease severely incapacitates military working dogs in Vietnam and is responsible for more lost duty time than any other disease. It is always manifested by loss of filiform papillae on the tongue and frequently there is accompanying epithelial ulceration, hemorrhage and inflammatory cell infiltration of the lamina propria of the tongue. The cause of redtongue is unknown.

Case III - 10505 - The 6-week-old duckling had "bumblefoot", an ulcerative pododermatitis caused by Staphylococcus aureus. The lesions in this case represented an early stage of the disease. Histologic interpretation was somewhat hampered by a superficial "cooked" effect, created by scalding the feet during processing for slaughter. None of the seminar attendees identified the disease condition or the tissue.

Case IV - 71-D-84 - The adult rhesus monkey had malignant lymphoma of the plasmacytic type. (Contributor's diagnosis). The neoplasm present in the section consisted of a soft, friable white mass 0.5 cm. in diameter in the adrenal cortex. A similar lesion was present in the lung. Several of the seminar attendees thought that the neoplasm was of granulocytic myeloid origin. Staphylococcus aureus was cultured from the mandibular lesion.

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Historics  
AFIP Wednesday Slide Conference  
17 May 1972

Case I - 70-33 - An old cat that had sporadic periods of coughing died following a second episode of anorexia, vomiting and fever of 105°F.

Case II - 70-58 - This is a section of tissue from a mouse. There were sporadic deaths in the colony that the mouse came from.

Case III - 69-2967 - A 4-year-old Labrador retriever bitch was admitted to the clinic because of coughing. The dog was treated symptomatically for infectious tracheobronchitis and released. The dog returned three weeks following the initial presentation with reoccurrence of signs. Radiological findings included numerous lung densities suggestive of neoplasia. The dog died three weeks later.

Case IV - 220A - This is a section of tissue containing an incidental finding from a 9-month-old Syrian hamster that was killed for fetal tissue culture.

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Results  
AFIP Wednesday Slide Conference  
17 May 1972

Case I - 70-33 - The old cat had necrotizing enteritis caused by Toxoplasma gondii. Numerous organisms were visible in the submucosa and smooth muscle of the intestine. In addition to disseminated necrogranulomatous lesions throughout the body from toxoplasmosis, the cat also had 2 Dirofilaria immitis adults in the right heart and pulmonary arteries. No microfilaria were found.

Ref: Jones, S. R., Balk, M. W. McKee, A. E., and Jones, W. L.: Simultaneous infection with Dirofilaria immitis and Toxoplasma gondii in a domestic cat. In Press.

Bernard, M. A.: Feline Dirofilariasis. Can. Vet. J. 11: 190, 1970.

Case II - 70-58 - The mouse had multifocal necrotizing hepatitis caused by Bacillus piliformis, the organism of Tyzzer's Disease. The Giemsa stain was used to more clearly demonstrate the organism.

Case III - 69-2067 - The 4-year-old Labrador retriever bitch had chondrosarcoma of the lung. The bronchial lymph nodes and kidney also contained neoplastic masses. The contributor suggested the possibility that the site of origin of the neoplasm may have been bronchiolar cartilage.

Case IV - 220-A - Numerous fibrous laminated nodules were present on the serosal surface of the abdominal cavity of the 9-month-old Syrian hamster. Although their etiology was undetermined several seminar attendees thought that they were of vascular origin. Many small muscular arteries near the ovary contained trophoblastic epithelium as well as intimal and medial degeneration. The ovary contained developing follicles and a prominent corpus luteum. A subacute to chronic nonsuppurative fat necrosis was also present.

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Histories  
AFIP Wednesday Slide Conference  
24 May 1972

Case I - 72-1 - A golden retriever bitch was injected intramuscularly with an experimental drug two weeks prior to euthanasia and necropsy. The gross and necropsy findings included generalized lymph node enlargement, spleen enlargement and massive necrosis of the semimembranosus and semitendinosus muscle bundles.

Case II - 71-249 - An adult male domestic short hair cat had severe dyspnea. On auscultation the absence of lung sounds over the left thorax was noted, and a diagnosis of consolidating pneumonia was rendered. The cat was subsequently euthanized. Gross and necropsy findings consisted of 130 cc. of a yellow-green cloudy flocculent fluid in the left pleural cavity and atelectasis of the left lung. A 2 cm. nodule was present in the left diaphragmatic lobe and a small perforation of the visceral pleura was present over the nodule. There were no other significant gross lesions. The provisional anatomic diagnosis was bronchopneumonia with empyema.

Case III - 69-2208 - A 5-year-old male Labrador retriever dog had ascites and pitting edema of the rear legs. The femoral pulse was normal and the dog was able to walk without difficulty. Exploratory laparotomy did not confirm a radiographic diagnosis of enlarged sub-lumbar lymph nodes, but did reveal a collapsed posterior vena cava.

Case IV - 70-1308 - A round brownish mass 2 inches in diameter was observed in a thymus from an undisclosed species of animal by a USDA meat inspector.

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Have all

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Case I - 72-1 - The golden retriever bitch had generalized granulomatous disease secondary to administration of bovine  $\alpha$  - lactalbumin suspended in complete Freund's adjuvant. The histopathologic examination revealed multiple granulomas in lungs, spleen and lymph nodes, together with generalized lymphoid hyperplasia and active lymphoplasmocytopenia in lymph nodes and Peyer's patches. The slides submitted are lymph nodes. According to several seminar attendees, if lesions such as this, induced by complete Freund's adjuvant, were stained with acid fast stain, numerous tubercle bacilli would be visible.

Case II - 71-249 - The adult male domestic short hair cat had reticulo-endotheliosis of the lungs, liver and spleen. This case is of interest because of the diffuse interstitial infiltrate of histiocytes within the lungs, which according to the contributor, has not been reported as part of the spectrum of reticuloendotheliosis.

Ref: Gilmore, C. E., Gilmore, V. H. and Jones, T. C.:  
Reticuloendotheliosis, a Myeloproliferative Disorder of Cats:  
Comparison with Lymphocytic Leukemia. Path. Vet. 1: 161, 1964.

Case III - 69-2208 - The 5-year-old male Labrador retriever dog had osteogenic sarcoma. Scattered throughout the neoplasm were accumulations of pink homogeneous material suggestive of osteoid. On necropsy 2 small firm white nodules 0.5 cm. in diameter projected slightly above the surface of the liver. When cut, these nodules were found to be part of a firm white tumor which had grown within the hepatic vein, completely filling several branches and extending into the vena cava which was completely obstructed. The mass within the vena cava had hard, gritty, bone-like areas within it.

Case IV - 70-1308 - The undisclosed species of animal had a squamous cell carcinoma of the thymus. The neoplasm was composed of invading finger-like cords of squamous cells with no accompanying lymphocytic proliferation. In the less involved portions, invasion of blood vessels was observed. Much of the thymic parenchyma had been replaced by hemorrhage and necrosis in one area. Since about half of the seminar attendees thought it to be a squamous cell carcinoma, and the other half a thymoma, considerable discussion ensued.

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*Done all*

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Case I - 200-71 - The 11-month-old female rhesus monkey had pulmonary nocardiosis. On microscopic examination, necrosis of alveolar septa, intra-alveolar hemorrhage, and infiltration of a fibrinopurulent exudate were diffusely present in all lung sections taken. Many bronchial lumina contained fibrinopurulent exudate and the epithelium of many bronchi and bronchioles was undergoing necrosis and sloughing. The visceral pleura was thickened with a fibrinopurulent exudate and many immature fibroblasts. Branching, filamentous, rod-shaped bacteria, occasionally visualized in the section, were culturally identified as Nocardia sp.

Ref: Al-Doory, Yousef, et al.: Pulmonary Nocardiosis in a Vervet Monkey. JAVMA, 155: 1179, 1969.

Jonas, Albert M., et al: Pulmonary Nocardiosis in the Rhesus Monkey. Importance of Differentiation from Tuberculosis. Path. Vet. 3: 588, 1966.

Case II - A72-94 - The white laboratory mouse was injected with Plasmodium berghei infected red blood cells. The organism is capable of establishing predictable and controllable fatal infections by this method, and therefore, has been extensively used in research.

Ref: Singer, I.: The Cellular Reactions to Infections with P. berghei in the White Mouse. J. Trop. Dis. 94: 241, 1954.

Case III - A71-694-13 - The rhesus monkey had atherosclerosis. The diet contained butter and coconut oil in addition to cholesterol and other food. The gross lesions are similar to those of the severe disease in man. This monkey had chronic myocardial ischemia which produced ECG changes prior to death. Of particular interest was the involvement of the arteries servicing the brain.

Ref: Kranisch, D. M., and Hollander, W.: Occlusive Atherosclerotic Disease of the Coronary Arteries in Monkey (Macaca irus) induced Diet. Exp. & Molecular Path. 9: 1-22, 1968.

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Case IV - A72-252 - The 6-month-old mongrel dog had dermatomycosis of the ectothrix type. No culture was made of the lesion, but the genus Microsporum and several of the Trichophyton species produce infections of the ectothrix type. Numerous arthrospores were present on the surface of the hair shafts, and hyphae were observed in the center of the hair shafts, as well. Specially stained slides, more clearly demonstrating the organisms, will be sent at a later date.

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\*\*Note! This is the last AFIP Wednesday Slide Conference of this season. Shortly, a letter will be mailed out to all present and prospective contributors for next year's slide conference explaining any changes that may be forthcoming. I hope that this year's conference has been beneficial, and I would like to thank all for their patience and help that was willingly rendered when needed.