

Acinetobacter Infection in a Lhasa Apso

History: Tissues from a 3-year-old female Lhasa Apso dog. She was vomiting and listless and acting painful. The fascia under the skin of the ventral body became swollen after Cerenia and Convenia injections were given (anti-emetic and long-acting cephalosporin).

Morphologic Diagnoses: Suppurative cellulitis with thrombosis and histiocytic meningitis

Etiologic Diagnosis: Bacterial meningitis

Other findings: 4+ *Acinetobacter* sp. was isolated from the skin infection. Brain was not cultured.

Photomicrographs: 1. fibrinosuppurative cellulitis with a fibrin thrombus in a vein and 2. Meninges of a sulcus of the cerebrum with histiocytes that contain prominent bacterial cocci.

Comments: There was locally diffuse suppurative and edematous cellulitis and myositis of the ventral thorax and abdomen. The spinal cord was autolyzed but a survey section of the distal thoracic area did show mild, multifocal meningitis with mixed neutrophils and lymphocytes. The section of brain (cerebrum) shows numerous coccoid bacteria that are both intracellular and extracellular to the histiocytes in the leptomeninges and Virchow-Robbins spaces in the cortex.

Acinetobacter, especially *A. baumannii* has been recognized for years as a hospital infection in people and is apparently getting to be more common and is now has been reported in hospitalized dogs and cats. It is usually a low-grade pathogen but it can develop and transfer antibiotic resistance quickly and it produces endotoxins. It is a Gram negative coccobacillus and becomes more coccoid with static growth periods.

Submitted by: Dr. Matthew Walker, White River Veterinary Clinic, Batesville, AR

References: Kruth, SA. Chap. 37, Gram-negative bacterial infections, in *Infectious Diseases of the Dog and Cat*, 3rd ed., Editor, CE Greene, Saunders/Elsevier, St. Louis, pp. 325-326, 2006.

CDC, MMWR. 53 (45): 1063-1066, Nov. 19, 2004. *Acinetobacter baumannii* infections among patients at military medical facilities treating injured U.S. service members, 2002-2004. [mm5345a1.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5345a1.htm)