

J Comp Pathol. 2009 Feb-Apr;140(2-3):105-12. doi: 10.1016/j.jcpa.2008.08.003. Epub 2008 Dec 27.

Pathological features of amyloidosis in stranded California sea lions (*Zalophus californianus*).

Colegrove KM, Gulland FM, Harr K, Naydan DK, Lowenstine LJ.

Source

Department of Pathology, Microbiology and Immunology, Veterinary Medical Teaching Hospital, School of Veterinary Medicine, University of California, One Shields Avenue, Davis, CA 95616, USA.
kcolegrove@lumc.edu

Abstract

Amyloidosis was diagnosed in 26 stranded adult California sea lions between 1983 and 2006 by retrospective case analysis. The kidneys (92.3% of animals), blood vessels (80.7%) and thyroid glands (65.4%) were most commonly affected. Macroscopically, affected kidneys were swollen, with pale tan cortices and loss of corticomedullary differentiation. Amyloid deposits in the kidney were located in the glomeruli, blood vessels, and peritubular interstitium, most prominently in the outer stripe of the medulla. The amyloid deposits were identified as type amyloid A (AA) by potassium permanganate staining and immunolabelling with antibodies against AA protein. Concurrent diseases, including inflammatory processes and genital carcinoma, were common in affected animals. Serum amyloid A concentrations were high (>1200 microg/ml) in six of seven affected sea lions, while the median value in clinically healthy animals was <10 microg/ml. These findings suggest that renal amyloidosis contributes to morbidity and mortality in stranded adult California sea lions.

PMID: 19114281 [PubMed - indexed for MEDLINE]