Idiopathic Generalized Soft Tissue Mineralization in an Appaloosa Filly # * ◦

Stephanie R. Ostrowski1, Alexandre P. Loretti1, Snehal N. Towde1, James A. Bergum2

1California Animal Health and Food Safety Laboratory System, University of California, Davis, Davis, CA; 2Jim Bergum Veterinary Services, Herald, CA

Narrative: A 10-month old Appaloosa filly was submitted for necropsy at the UC Davis School of Veterinary Medicine, CAHFS-Davis veterinary diagnostic laboratory, following treatment for a chronic upper respiratory infection. The animal had a history of inability to stand, subcutaneous edema of the ventral midline and upper hind legs, depression, poor appetite, loss of muscle mass, and fever. At necropsy, there was severe extensive mineralization of the heart affecting the semilunar aortic valves, atrial epicardium, endocardium of the left ventricle and aorta, and lungs. No bone lesions were observed. Microscopically, calcification was observed in the heart, aorta, lung, kidney, stomach, and thyroid gland. Concentrations of Ca and P in the serum were both elevated (Ca = 220ppm, ref. range 100-130ppm; P = 270ppm, ref. range 27-50ppm). Vitamin D concentration in the serum was within normal limits, and slightly above the normal range in the kidney. The parathyroid glands were not examined by histopathology. PTH was not measured in serum. The cause of the severe, generalized soft tissue mineralization could not be determined in this case. Vitamin D toxicosis was considered but could not be confirmed as there was no history of overzealous vitamin D supplementation, access to calcinogenic plants, or hypercalcemic rodenticides. No neoplasia that would cause primary hyperparathyroidism or hypercalcemia of malignancy was found. No granulomatous disease or bone lysis that would cause hypercalcemia was noted. No primary renal disease that would cause renal failure was seen ruling out renal secondary hyperparathyroidism. The possibility of nutritional secondary hyperparathyroidism was not thoroughly investigated as Ca/P analyses were not done on diet and serum of other horses from the farm, and PTH not measured in serum of any of these animals.

# AAVLD Trainee Travel Awardee (Pathology)
* Graduate Student Poster Presentation Award Applicant
◦ USAHA Paper

AAVLD Annual Conference Proceedings 186 Greensboro, NC October 2012