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30th March – 3rd April

Lead Intoxication in Bottlenose Dolphins (*Tursiops truncatus*): Pathological Findings.

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Five bottlenose dolphins (3 females, 2 males) were diagnosed with an acute lead intoxication and despite clinical efforts, the 3 females died within 10 to 30 days after diagnosis. Necropsies, immediately performed, revealed severe icteric discoloration of sub-cutis, blubber, and internal organs; almost complete absence of blood in the aorta and organs; collection of fluids in the lungs, cerebral edema, signs of gastritis with different grades of ulcerations, splenic hypoplasia, and hyperplasia of adrenal cortex with a reduction of the medulla. Histologically, the most relevant alterations were the increase of pale striations in the myocardium in absence of Zenker's necrosis with unaltered coronary vessels; injured areas with the presence of lead in the liver and kidneys, characterized by the presence of inclusion bodies (IBs). The lungs exhibited focal thickening of the interstitial connective tissue. A Total depletion of the red marrow with severe myelophthisis was observed. In CNS, the most prominent degenerative changes were related to Purkinje cells, associated with small hemorrhages, edema, gliosis, swelling/proliferation of capillary endothelia, interspersed perivascular cuffing, and cerebral neuronal degeneration. Histologic tissue changes can be of considerable diagnostic value in suspected cases, and IBs within renal and hepatic epithelia may be considered diagnostic in dolphins.