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POSTER

**ANATOMO-HISTOPATHOLOGICAL FINDINGS AND AGE DETERMINATION OF AN ADULT FEMALE
RISSO'S DOLPHIN, *GRAMPUS GRISEUS*, RESCUED IN THE ANCONA HARBOUR, ITALY.**

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A Risso's dolphin was found within the harbour of Ancona, showing signs of severe distress. Despite medical care and assistance provided by Fondazione Cetacea, the animal died after two days and was subsequently brought to the Faculty of Veterinary Medicine of the University of Padua for necropsy.

At the external examination the animal was 2,90 meters long and it seemed emaciated (dorsal blubber thickness 2 cm). At gross examination, "wet lungs" and a moderate parasitosis (*Crassicauda* spp. in pterygoideus sinus; intestinal *Cestoda* spp. and rare *Tetraphyllidea* spp. in peritoneum and skeletal muscles) were observed.

At the microscopic observation, space-occupying lesions were observed in the *zona fasciculata* of the left adrenal gland: mostly perineural, slightly PAS-positive pseudocystic formations displaced adrenocortical parenchyma, causing mild multifocal peripheral haemorrhages and cellular degeneration. In the CNS, moderate cerebral edema, moderate gemistocytic astrogliosis, central chromatolysis, degenerated axons and severe neuronal lipofuscinosis were the main findings. Argentaffin cytoplasmic granules were seen in grouped, mainly perivascular, glial cells and in some neurons (tissue around these aggregates is characterized by a grey discoloration at the Grimelius specific staining). Some of these lesions are known to be age-related, as lipofuscinosis. The age of the animal was determined counting the dentine growth layers groups (GLGs) in teeth. The results obtained indicate that the animal was 18 years old.

Findings observed in the adrenal gland and in the CNS suggest a degenerative nervous disease and a high oxidative stress. In literature, adrenocortical pseudocysts are rare in all species but have been already described in cetaceans. They are associated with stress related or reproductive dysfunctions. Several sources suggest that organochlorines metabolites, which are neurodegeneration-inducing substances, can cause adrenal degenerative lesions.

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