Poster 240:

Budd-Chiari-like pathology in dolphins

Antonio Fernandez[1], Antonio Fernandez[2], Paul D. Jepson[3,4], Díaz-Delgado Josue[4], Yara Bernaldo de Quirós[4], Eva Sierra[4], Cristian Suarez-Santana[4], Marisa Andrada[4], Miguel Rivero[4], Antonio Espinosa de los Monteros[4], Pedro Herraez[4], Maria Jose Caballero[4], Francesco Consoli4, Ayoze Castro-Alonso4, Oscar Quesada-Canales4, Giovanni Di Guardo[4], Manuel Arbelo[4]

1. Veterinary School, University Las Palmas
2. Veterinary Histology and Pathology, Institute of Animal Health and Food Safety, University of Las Palmas de Gran Canaria
3. IZL
4. Institute of Animal Health and Food Safety, University of Las Palmas de Gran Canaria

» antonio.fernandez@ulpgc.es

Nearly two decades ago, pathologic examination results suggested that acoustic factors, such as mid-frequency active naval military sonar (MFAS) could be the cause of acute decompression-like sickness in stranded beaked whales. Acute systemic gas embolism in these whales was reported together with enigmatic cystic liver lesions (CLL), characterized by intrahepatic encapsulated gasflled cysts, tentatively interpreted as “gas-bubble” lesions in various other cetacean species. Here we provide a pathologic reinterpretation of CLL in odontocetes. Among 1,200 cetaceans necropsied, CLL were only observed in four striped dolphins (*Stenella coeruleoalba*), with a low prevalence (2%, N= 179). Together, our data strongly suggest that CLL are the result of the combination of a preexisting or concomitant hepatic vascular disorder superimposed and exacerbated by gas bubbles, and clearly difer from acute systemic gas embolism in stranded beaked whales that is linked to MFAS. Budd-Chiari-like syndrome in dolphins is hypothesized based on the present pathologic fndings. Nonetheless, further researched is warranted to determine precise etiopathogenesis(es) and contributing factors for CLL in cetaceans.