

ACCESSORY SPLEENS IN CETACEANS: A MORPHO-PATHOLOGICAL STUDY IN THREE BOTTLENOSE DOLPHINS (*Tursiops truncatus*) AND ONE RISSO'S DOLPHIN (*Grampus griseus*)

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Accessory spleens (*extra lien*), which are commonly observed in man and many other species, consist of ectopic splenic tissue with haematopoietic, erythrocytic and immune functions.

Accessory spleens have also been reported in several cetacean species, namely common dolphin (*Delphinus delphis*), striped dolphin (*Stenella coeruleoalba*) and bottlenose dolphin (*Tursiops truncatus*), reaching a prevalence of 21%, 18% and 16%, respectively. As in terrestrial animals, accessory spleens may vary in their number, location and size.

We report herein the *post-mortem* and light microscopic findings of accessory spleens in four cetaceans, namely two stranded and a captive newborn bottlenose dolphin, as well as an adult female Risso's dolphin (*Grampus griseus*) found beached ashore. In accordance with previously published data, a number of nodular accessory spleens, ranging from 0.2 to 2.5 cm in diameter, were found either within the gastro-lienal ligament, close to the spleen and the gastric lesser curvature, or embedded within the pancreas.

Histopathological investigations confirmed the macroscopic diagnosis, with all the accessory spleens under study showing more or less numerous megakaryocytes scattered throughout the red pulp.

The function of cetaceans' spleen and accessory spleens is still debated. As a matter of fact, the organ's small size, along with its typical globular shape and smooth surface, argue against a blood storage function. Furthermore, the presence of megakaryocytes strongly suggests a role in extramedullary haematopoiesis for both spleen and accessory spleens.

In conclusion, our findings - though limited to only four animals - raise a number of questions on the functional significance of accessory spleens in cetaceans.