later group, after non-contrast CT acquisition, a second CT acquisition was performed immediately after injection of water-soluble iodinated contrast medium in each NLDS. Quality of visualization and description of both the bony structures surrounding NLDS and the aspect of CT-DCG were recorded.

Results: The quality of visualization of bony structures surrounding the NLDS in healthy rabbits was good in non-contrast CT, and the bony lacrimal canal had a smooth contour, a regular diameter, and its dimensions are provided. CT-DCG technique was easy to perform and provided a good visualization of the NLDS. The normal appearance of CT-DCG in healthy rabbits (especially physiological narrowings and bendings) was described.

Discussion/Conclusion: CT-DCG is a minimally invasive and simple technique to evaluate the NLDS and its normal appearance and dimensions are provided. It should prove to be useful in evaluation of diseases of the NLDS.

Skeletal abnormalities in stranded harbor porpoises (*Phocoena phocoena*) detected by computed tomography

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Introduction/Purpose: Stranded harbor porpoises (*Phocoena phocoena*) on the Dutch coast are autopsied at the Department of Pathobiology routinely to identify the cause of death. Temporarily, intact carcasses were presented for a full body CT examination as part of the forensic work-up. The objectives of this study were to describe skeletal abnormalities found on full body CT-scan and to compare those findings with pathologic examination.

Methods: From November 2016 to August 2018, 49 porpoises of different ages (27 males and 22 females) were presented for full body CT scan with a 64-slice CT scanner. The CT images were assessed for pathological skeletal changes by an ECVDI resident. Any abnormalities detected during gross examination were subsequently further analyzed and sampled for histopathological examination during necropsy.

Results: Eighteen porpoises showed skeletal lesions on CT examination: unilateral acute mandibular fracture (n = 4), chronic rib fractures (n = 4), chronic serial fractures in lumbar transverse processes (n = 2), chronic lumbar discospondylitis (n = 5), spondylitis with periosteal new bone formation in two sequential caudal vertebrae (n = 1), and bone necrosis or osteomyelitis without obvious new bone formation in the humeral head (n = 1), petrosal bone (n = 1), or T11 (n = 1). All lesions were confirmed during pathologic examination except the transverse process fractures of one animal.

Discussion/Conclusion: Skeletal abnormalities were found in 37% of the examined porpoises. Performing a postmortem full body CT scan prior to pathologic examination in harbor porpoises is very useful to identify skeletal abnormalities, such as fractures and osteomyelitis, which can otherwise be difficult to detect during necropsy.

Gestational sonography in nurse shark (*Ginglymostoma cirratum*)

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Introduction/Purpose: The low fecundity of sharks in captive indicates that improvements are necessary. This study aims to acquire sonographic information about pregnancy in nurse sharks (NS).

Methods: Two female NS (at least 13 and 16 years old) living at Brazilian Center for the Protection and Research of the Sea Turtles, were submitted to ultrasound assessment (Logic-e GE®; 4.6 to 6 MHz convex transducer, image depth of 15 cm) in different gestational periods. Transducer was placed directly on skin, at ventral surface, during the feeding process, when both NS permit human manipulation without any physical or chemical restraint. Scanning ran from pectoral fins to close to the cloaca, respecting the shark consent time.

Results: Egg capsules have hyperechoic almond-like surface that permit internal content visualization. At 3 months pregnant (first assessment), it was possible to identify empty capsules (anechoic content), unfertilized eggs (homogenously echoic content), and several developing fetuses in which hyperechoic vertebral column, a thin hypoechoic spinal cord, pectoral and dorsal fins, mouth, and pharynx were characterized. Movements of the mouth, gills, and swimming were becoming better identified according to their development. Fetuses reached up to 26 cm length at 6 months of pregnancy just before birth, when all of them are already outside capsules.

Discussion/Conclusion: Despite difficulties (fetuses movements, short scanning time, presence of other individuals), ultrasonographic evaluation was possible. The fetal size follow-up was an important predictor to the period of birth when tank observation should be intensified to permit babies separation before adult predation, collaborating with reproductive management and species conservation.

Feasibility and reproducibility of shear wave elastography in evaluating lenticular elasticity in normal dogs

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