Peritoneal lymphomatosis in a cat

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OBJECTIVES
The aim of this case report is to describe features of peritoneal lymphomatosis, a rarely described form of intraperitoneal spread of lymphoma, in a 11-year-old female spayed domestic shorthair cat presented for pleural and abdominal effusions with a recent history of a hepatic icterus resolved with a short course of corticosteroids and antibiotics.

METHODS
Physical examination, diagnostic imaging, clinical and histopathological analysis were performed.

RESULTS
Physical examination revealed a poor body condition, restrictive dyspnea and abdominal distension with a fluid thrill. Hematology, biochemistry, coagulation times, FIV/FeLV Elisa test were unremarkable. Analyses of the effusions were consistent with exudates (specific gravity 1.030, proteins 40 g/L, presence of mature lymphocytes, no infectious agents on cytology, negative Coronavirus polymerase chain reaction, chylothorax excluded). Abdominal ultrasound showed a hepatomegaly, multiple small hypoechoic nodules localized to the peritoneum and diffuse steatitis. CT scan revealed bicavitary effusion associated with post-contrast enhancement of an irregular peritoneum consistent with disseminated small nodules, sternal and mesenteric lymphadenopathy. Exploratory laparotomy confirmed the diffuse infiltration of the peritoneum by small nodules, a rounded firm left pancreatic lobe, and severe mesenteric adenomegaly. Manual inspection of the gastro-intestinal tract did not reveal any abnormality. Histopathological analysis of the liver, peritoneum and mesenteric lymph nodes, and cytological analysis of the pancreas were diagnostic of a small cell lymphoma. Immunohistochemistry was consistent with an initial low-grade T cell-lymphoma transformed into a high-grade type within the liver. The cat was treated with prednisolone as owners denied chemotherapy.

STATEMENT (CONCLUSIONS)
This case describes features of peritoneal lymphomatosis, a rarely described form of lymphoma dissemination, reported for the first time of low-grade T-cell origin.

Computed tomography densitometry of eyes: a method to assess feline ocular diseases

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OBJECTIVES
The objective of this study was to clinically apply Computed Tomography (CT) to determine the density of aqueous humor, lens, and vitreous in normal feline eyes.

METHODS
Sixteen domestic short hair (DSH) cats including 10 males and 6 females were selected based on their normal physical and ophthalmological examinations. CT of skull was performed in the sternal recumbency in all animals under the general anesthesia. CT scans were reconstructed at 1 mm and the density of the ocular structures was calculated by software Syngo 5.5, which regions of interest (ROI) about 0.04 cm², 0.1 cm², and 0.2 cm² were chosen in the anterior chamber, lens, and vitreous, respectively in the parasagittal and dorsal planes.

RESULTS
The mean ± SD aqueous humour, lens, and vitreous density were 21.36 ± 6.42 HU, 158.18 ± 10.23 HU, and 17.34 ± 4.49 HU, respectively in parasagittal plane, and 21.48 ± 8.39 HU, 153.7 ± 9.73 HU and 16.88 ± 6.05 HU, respectively in dorsal plane. No statistically significant differences were found in the density of both planes (P-value > 0.31). Besides, there was no statistically significant correlation between the density and weight (P-value > 0.062), as well as the density and sex (P-value > 0.26), in both planes.

STATEMENT (CONCLUSIONS)
Considering the widespread use of CT for assessing ocular structures, it may be beneficial for veterinary radiologists and ophthalmologists to have baseline value of ocular densities in CT beforehand in order to evaluate and diagnose ocular abnormalities in cats accurately.