were apparent months earlier (two months- one year) and veterinary care was not sought possibly due to their insidious onset. Development of diabetes mellitus in hypothyroid dogs is either due to insulin resistance or immune-mediated destruction of pancreatic b-cells. Polyglandular autoimmune syndrome was strongly suspected in 2/3 of these patients.

Treatment and evolution of an uterine leiomyosarcoma in an african hedgehog (*Atelerix albiventris*) treated with chemotherapy

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INTRODUCTION

Hedgehogs appear particularly prone to **neoplasia**. Usually these tumours occur in animals that are over 3 years in age, with malignancy incidence between 65-85%. Despite the number of tumour descriptions in hedgehogs, there is no literature concerning chemotherapy in this specie, and treatments are generally extrapolated from cats and dogs protocols.

CLINICAL CASE

A 2,5 year-old intact female African hedgehog (*Atelerix Albiventris*), was evaluated for abdominal distension. On physical examination the animal weighed 546g and a firmly mass was palpated along the abdomen measuring 7cm in diameter.

Haematology, biochemistry, radiographs, ultrasonography (US) and a computed tomography (CT) were performed. Complete blood cell revealed a neutrophilic leukocytosis but the chemistry profile results were within the normal ranges. Radiographic images revealed a large soft tissue opacity occupying the entire abdominal cavity. US identified a mass with small cystic areas (larger than 4x3cm) in the middle-caudal abdomen. CT confirmed a large abdominal mass (about 7x5cm) affecting the uterus, causing mass effect and dorsolateral displacement of the intestinal package, spleen and right kidney. The mass had well-defined margins, and was causing marked thickening and nodular appearance of the left uterine horn wall.

An exploratory laparotomy was performed and a large mass englobing uterus and ovaries was removed. Histopathological examination identified a uterine leiomyosarcoma.

Fourteen days postoperatively the animal started metronomic chemotherapy with toceranib phosphate (Palladia®) 2.5mg/animal every other day, but due to haematological changes over weeks, it was administered every 4 days.

Six months later the animal was active, eating and drinking as normally. At that time a US and a CT revealed several masses spread into the omentum. The cytology and biopsy of some masses confirmed the diagnosis of sarcoma. The animal went on toceranib phosphate, 2.5mg/animal every 4 days and cyclophosphamide, administered subcutaneously, was added every 3 weeks.

Several weeks later, the animal is well.

CONCLUSIONS

The elective treatment for uterine neoplasia is an ovariohysterectomy but depending of the malignity of the tumour an adjunctive chemotherapy should be performed. Toceranib phosphate and cyclophosphamide were administered to the hedgehog because a good response has been observed in dogs with similar solid tumours. In the present case, although a decrease in hematocrit was observed, a clinical benefit was evident. To the authors knowledge this is the first report of a metronomic chemotherapy in an African hedgehog.

Octreotide as medical therapy of idiopatic chylothorax in 3 cats after surgery

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Idiopathic chylothorax is a rare disease that affects cats. Different therapeutical options both surgical and medical have been described without a clear standard protocol and positive outcome.

The use of Octreotide in cats have been described previously (for the medical therapy of hyperinsulinemia in cats affected by insulinomas, gastrinomas, acromegaly and acute pancreatitis) but its usefulness as definitive treatment to cure chylothorax its unclear. This preliminary data describe the clinical features of three cats treated with Octreotide after a partial surgical resolution of idiopathic chylothorax.

Three cats presenting a moderate amount of chylous effusion one week after surgical closure of thoracic duct with transdiaphragmatic approach were selected for our study. The Octreotide started seven days after surgery at the dose of 20 ug/kg/sc/tid (dose proposed in literature 10–20 ug/kg/sc/tid for maximum 2–3 weeks). Standard clinical, radiographic and ultrasonographic evaluations were performed twice a month and together blood cell count, seroum biochemistry, cytological,chemical-physical evaluation of thoracic effusion were performed at each control. Clinical,

imaging and laboratory abnormalities were reported.

The Octreotide administration was interrupted one month later by the end of the pleural collection and each patients was re-evaluated one year after surgery.

Cat one: (DSH, 5 years old, neutered male) presented pleural effusion from day one to day 146 of therapy. Octreotide was interrupted at day 176.

Cat two: (DSH, 6 years old, neutered male) presented pleural effusion from day one to day 143 of therapy. Octreotide was interrupted at day 173. Both cats were discharged without clinical symptoms and they were rechecked six month later without any clinical problems, except the diffuse pleural thickening observed at the ultrasonographic examination.

Cat three: (DSH, 9 years old, neutered male) presented pleural effusion from day one to day 182 of octreotide therapy. At day 182 the cat was euthanised according to the owners due to respiratory insufficiency. Necropsy confirmed a severe constrictive pleuririts. In all the subject thoracentesis were performed during controls if necessary.

No adverse effects were observed even considering that this drug was used for 6 months therapy. In our experience on three cats the use of Octreotide turned out useful and safe as complementary therapy of the idiopathic chylothorax.

Generalized vertebral abnormalities in a Rhodesian Ridgeback with a lysosomal storage disease.

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BACKGROUND

Although experimental canine models are commonly used to investigate bone pathology associated with specific lysosomal storage disorders, only a few reports have described such changes in naturally affected dogs. These disorders are most typically caused by homogenous recessive genetic abnormalities, resulting in enzyme deficiencies an subsequent accumulation of storage material within the cell. Animals will be born normal and clinical signs will become apparent as they age. Although many body systems are involved, affected animals typically present with clinical signs of central nervous system dysfunction.

CASE PRESENTATION

A 3-year-11-month male neutered Rhodesian ridgeback was presented for evaluation of cervical hyperaesthesia and right thoracic limb lameness. Neurological examination identified generalised ataxia, right thoracic limb lameness, proprioceptive deficits in both pelvic limbs and marked cervical hyperaesthesia. A lesion affecting the C1-C5 spinal cord segments was considered likely. MRI of the neck identified an irregularly shaped and shortened vertebral body of C6, a mild subluxation between C5 and C6, multiple hypertrophic and abnormally shaped articular processes, and multiple dorsal lamina abnormalities. CT identified generalised vertebral abnormalities, which were most pronounced in the cervical vertebral column. Multiple cervical vertebrae were abnormally shaped, consisting of hypertrophic and abnormally shaped articular processes, dorsal lamina, irregularly shaped vertebral bodies, and multiple visible fractures lines. The axial and appendicular skeleton were characterised by abnormally hypoattenuating cancellous bone and a thin cortical cortex. The dog was euthanised and a post-mortem examination confirmed generalized osteoporosis, vertebral malformations and identified distended and swollen neurons in the cerebrum, hippocampus, cerebellum and brainstem, containing intracytoplasmic, granular, PAS-positive inclusions. These findings were considered consistent with a lysosomal storage disease, with a presumptive diagnosis of mucopolysacharidosis being most likely.

CONCLUSION

This report describes vertebral MRI and CT abnormalities in a dog with a lysosomal storage disease and illustrates that this type of disorders should be considered in dogs of any breed and age with generalized vertebral abnormalities and osteoporosis.

Transthyretin and clusterin as potential urinary biomarkers of spinal cord injury

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Biomarkers have the potential to facilitate assessment of spinal cord injuries, assist clinical decision-making, and further improve understanding of the pathophysiology of spinal cord injury (SCI). Urine is an attractive source of potential biomarkers due to its relative ease of collection and potentially high protein content. A pilot study suggested that transthyretin (TTR) is present in urine of dogs with SCI, while clusterin in cerebrospinal fluid has been proposed as a biomarker of chronic spinal cord disease in the dog and it is also detectable in urine. This project investigated the potential of urinary TTR and clusterin as biomarkers of SCI. Random spot urine samples were collected from clinically healthy dogs, as well as dogs with spinal cord injury (n = 12) and a variety of non-neurological conditions (7 healthy dogs, 2 dogs with