



**PATIENT PRESENTING CLINICAL SIGNS**

Oliver MacMillan

Growth noted December 2022. Developed over the left eye, rostral cranial skull. Fluctuant & firm areas. FNA cytology non-diagnostic. Has progressed to right side. Uncomfortable. FNA - small amount dark waxy debris. Has consult with surgical specialist. Abnormal PE/Chem/CBC/UA Results: Increased WBC  $19.58 \times 10^9/L$ , ALKP 1225 U/L

**SPECIES**

Canine

**COMPUTED TOMOGRAPHIC STUDY OF THE SKULL**

A high resolution pre- and post-contrast CT study of the skull is provided for review.

**BREED**

Great Dane X

**COMPUTED TOMOGRAPHIC FINDINGS**

A large irregular shaped aggressive osteolytic and osteoproliferative mass of the cranium is seen. The mass presents ill-defined margins with a long and indistinct transition zone and extends from the bilateral nasal through the bilateral frontal and parietal bones. Intracranial extension through the cribriform plate and left frontal bone is seen. There are multiple sunburst-type and granulated periosteal new bone formations. A large expansile soft tissue component of the mass extends into the left orbita. The soft tissue component is moderately enhancing with hypoattenuating and cavitated lesions and are deforming the adjacent soft tissue and intramuscular parenchyma, more evident adjacent to medial pterygoid muscle swelling, and causing dorsolateral displacement of the left eye. Due to the deformation, the multilobular aspect and the mass's size are challenging to measure. However, mainly on the left side, the measurements are approximately 8.8cm x 4.3cm x 9.3cm.

**SEX**

MN

**AGE**

12.5 Years

**INTERPRETED BY**

Tilde Rodrigues Froes, DMV, MSc., Dr. Med Vet., Dipl. CBraRVet

There is an invasion of the mass of airway structures bilaterally. The invasion of the airway structures occurs in the right choana, right maxillary recess, the common nasal meatus bilaterally, endoturbinates, ectoturbinates, and frontal sinus. Soft tissue attenuating fluid material within the mass is seen completely obstructing the right nasal cavity.

A left dorsal meningeal enhancement and mass effect is seen adjacently to the osteolytic cribriform plate lesion.

**HOSPITAL NAME**

Bridgwater Veterinary Hospital and Wellness Centre

There is enlargement of the right and left medial retropharyngeal and mandibular lymph nodes, more evident on the left side.

**COMPUTED TOMOGRAPHIC DIAGNOSIS**

- Aggressive osteolytic and osteoproliferative mass of the cranium with bilateral frontal, nasal and parietal infiltration, and invasion of the cranial fossa.
- Concurrent left side exophthalmia due to retrobulbar mass infiltration
- Concurrent bilateral, however, predominant right side secondary rhinitis and/or neoplastic extension.
- Partial obstruction of the right choana
- Bilateral retropharyngeal and mandibular lymphadenitis, neoplastic or reactive

**REFERRING VET**

Dr. J. Beggs

**INVOICE**

56013

**DATE**

1-5-23



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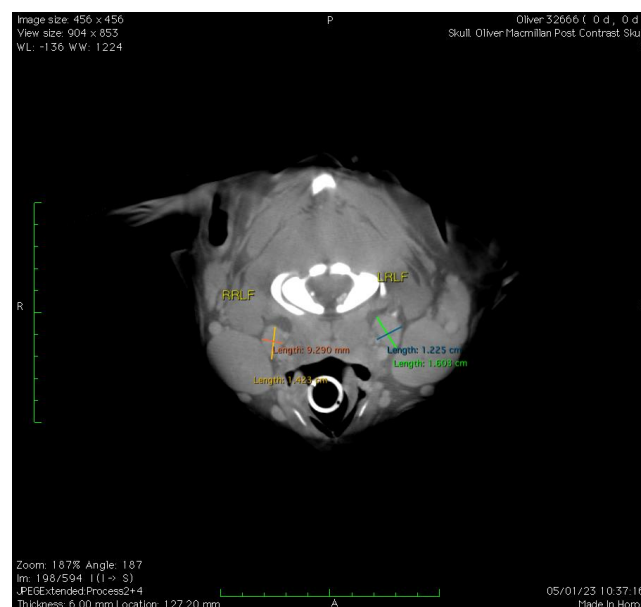
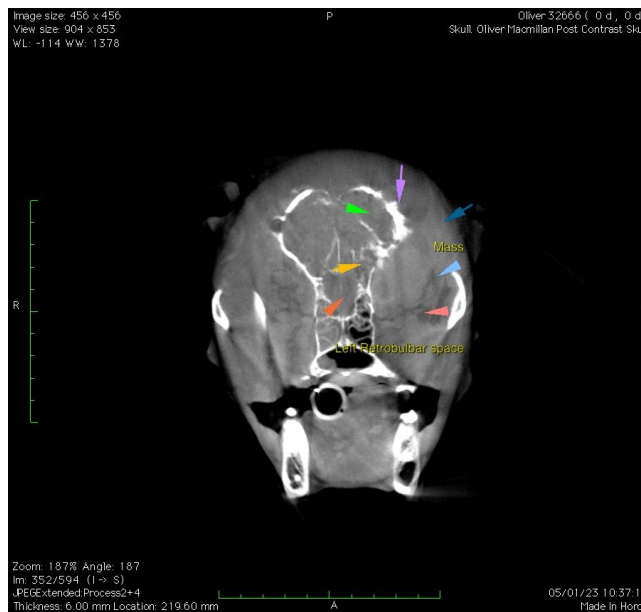
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The CT study reveals an aggressive osteolytic and osteoproliferative mass of the cranium with bilateral frontal, nasal and parietal infiltration, and invasion of the cranial fossa meeting malignancy criteria.

Osteosarcoma, chondrosarcoma, and squamous cell carcinoma are primary differential diagnoses. Soft tissue sarcoma is considered less likely. Biopsy is needed for a definitive diagnosis. The mass is not resectable. The long term prognosis is poor.





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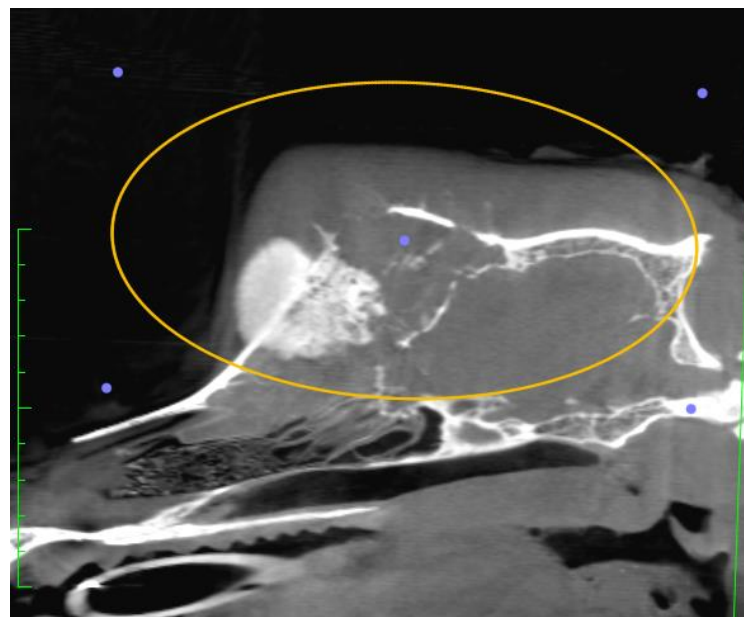
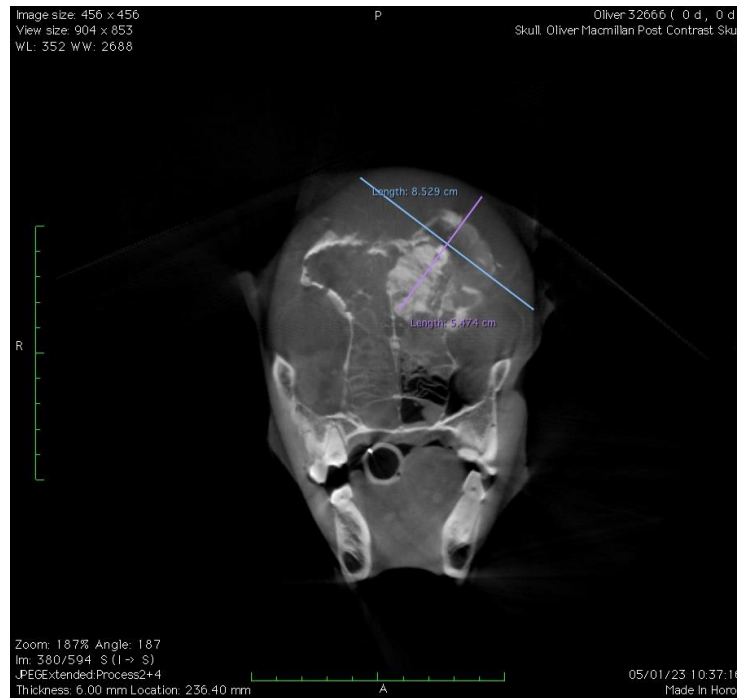
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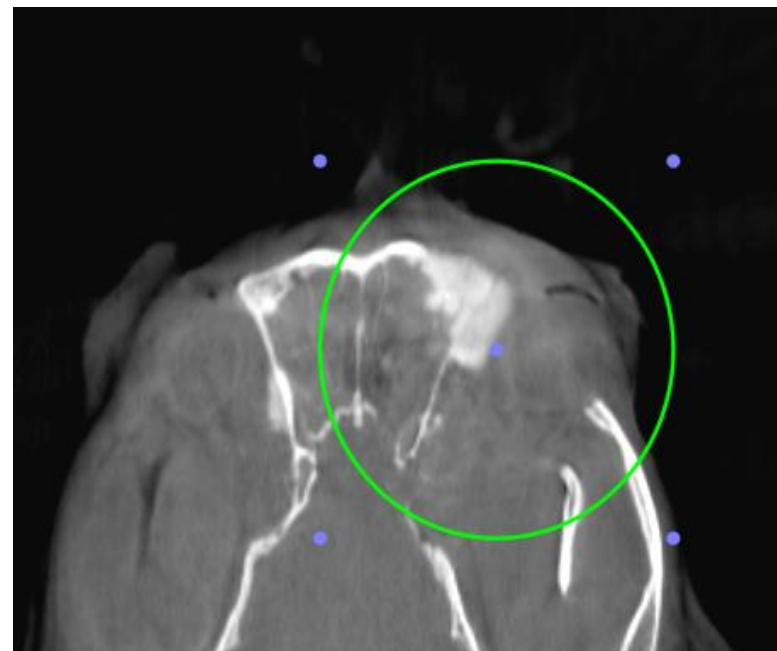
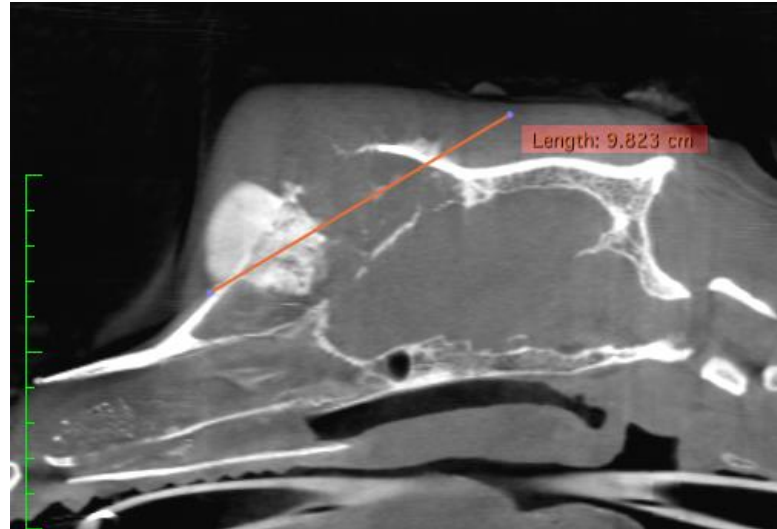
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

**Tilde Rodrigues Froes**, DMV, MSc., Dr. Med.Vet., Dipl.CBraRVet  
info@sonopath.com