

Computed tomography in a green iguana

A 5-year-old male iguana was presented with some lethargy, lack of appetite, and an overall decline in health. The iguana's eyes—the right one, in particular—had recently changed position, according to the owner. Radiography did not allow a definitive diagnosis and computed tomography (CT) was recommended to determine the possibility of retro bulbar pathology.

CT examination

A CT scan was taken of the patient's skull. The animal was sedated with propofol (10 mg/kg) injected into the tail vein and positioned in ventral recumbency. Two scout views were made to delineate the helical series using parameters of 120 kVp, 140 mA, slice thickness of 1.25mm, with an interval of 0.6 mm. A bone algorithm was used for the original helical scan, followed by retro-reconstructions using a soft-tissue algorithm.

The following findings were seen on the transverse images, as well as on the sagittal and dorsal reformatted images; An extended space-occupying process was visible (Figs.1 and 2) at the level of the right nasal cavity.

This was present at the rostral part and a prominent caudal extension was seen into the right retro bulbar region (Fig. 3). This structure showed a soft tissue opacity with locally hyper dense areas. Local lateral extension was seen with invasion and destruction of surrounding bony structures (Fig. 4).

After the original series, contrast medium (1 cc Iomeron 350mg/ml) was injected intravenously into the tail and another series of images was made using the same parameters and a soft-tissue algorithm. These images showed a slight, generalized capitation level with the soft-tissue mass described above and a localized rim enhancement was present (Fig. 5 and 6).

The most likely differential diagnoses were neoplasia or fungal granuloma. Inflammation was less likely but could not be excluded. Therefore, biopsy and histology were recommended.

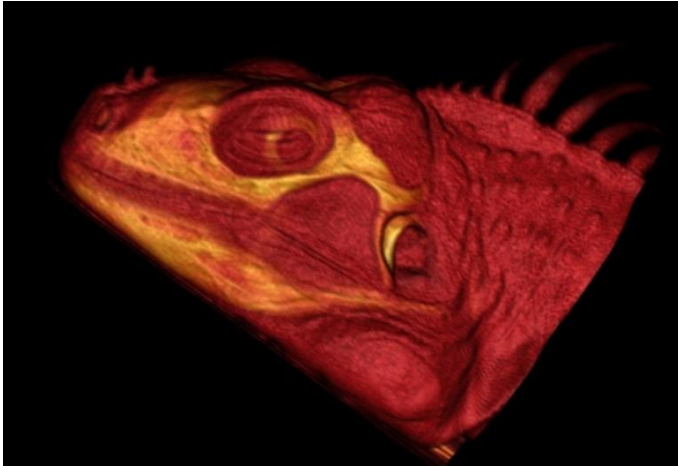
Conclusion

A prominent space-occupying process, particularly in the right nasal cavity and extending into the right retro bulbar region, could be seen in the patient. Secondary bony destruction caused by the extension, which was both lateral and dorsal, was present.

A CT examination is a useful imaging tool for evaluating such pathology.

The most likely differential diagnoses were neoplasia and fungal granuloma; inflammation was less likely, but could not be excluded.

Biopsy and histology were recommended to make a more definitive diagnosis.



Figures:



Fig. 1: Dorsal reformatted image, soft-tissue algorithm. A prominent space-occupying process (green arrow) with rostral invasion into the right retro bulbar region is seen in the right nasal cavity.

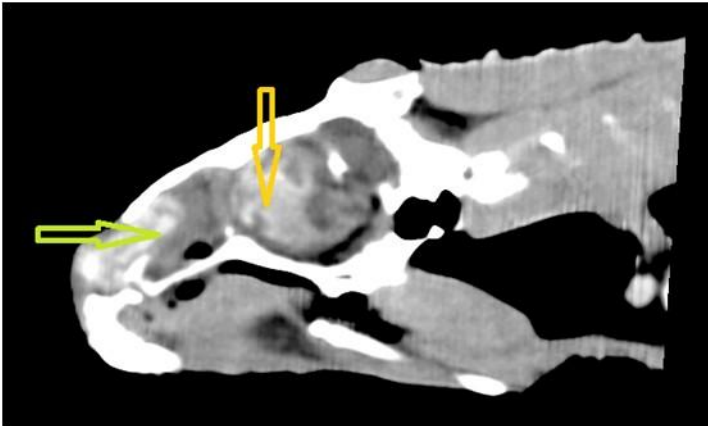


Fig. 2: Sagittal reformatted image, soft-tissue algorithm. A space-occupying process is seen at the level of the right nasal cavity (green arrow), with a caudal extension and a localized hyperdense aspect (orange arrow).

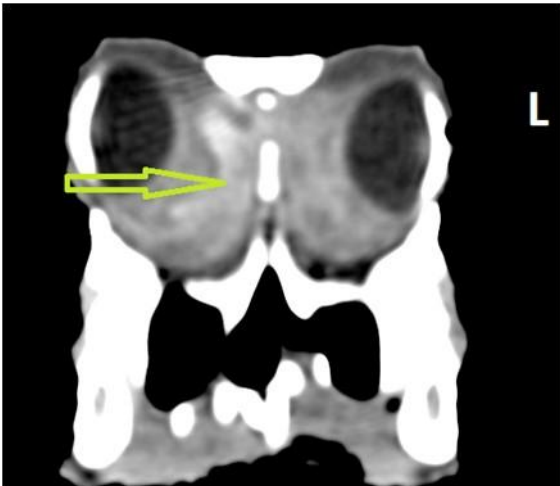


Fig. 3: Transverse CT image, at the level of the eyes, showing a space-occupying process at the right retro bulbar region with local increased opacity (green arrow).



Fig. 4: Dorsal reformatted image, bone algorithm, showing localized secondary invasion and destruction of the os nasale on the right side (green arrow).

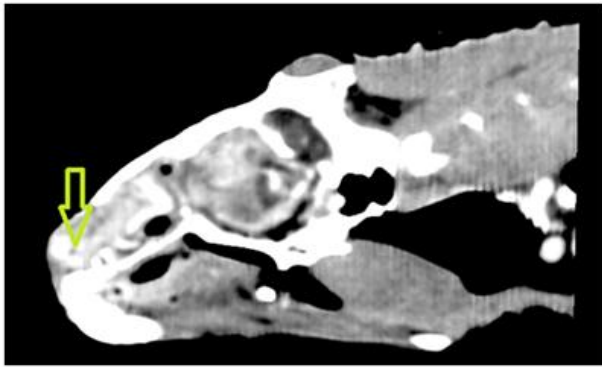


Fig. 5 and 6: Post-contrast sagittal (left) and dorsal (right) reformatted image, soft-tissue algorithm. After intravenous injection of contrast medium, slight enhancement of the space-occupying process (green arrow) is visible.