VETERINARY SPECIALIST ADVICE

FINAL REPORT

Signed off 10 Sep 2026 10:23 (UTC+1)

PATIENT INFORMATION

Patient		Owner	
Birthdate / Age	15 Apr 2023 / 3y 4mo	Breed	
Patient ID		Species	
Sex	M neutered	Weight	

STUDY INFORMATION

Clinic		Referring vet	
Case		Modality	
Accession		Date of exam	
Submitted			

CONCLUSIONS

1. Moderate unilateral destructive rhinitis affecting the rostral-to-mid right nasal cavity, characterised by regional turbinate destruction and loss of normal turbinate architecture, with associated fluid-attenuating and contrast-enhancing soft-tissue material. The soft-tissue component has a predominantly exudative/mucosal appearance, without a definitive discrete mass lesion. The overall CT appearance is nonspecific for aetiology. Differential considerations include chronic inflammatory/infectious rhinitis, a chronic nasal foreign body and nasal mycosis, particularly aspergillosis. The distribution is somewhat atypical for classic sinonasal aspergillosis, with disease predominantly involving the rostral-to-mid right nasal cavity and no frontal sinus involvement, sinus fluid accumulation or paranasal bone destruction. However, fungal rhinitis cannot be excluded on CT. Nasal neoplasia is not considered in this instance, given the patient's age and signalment, absence of a discrete mass lesion, and the predominantly exudative/mucosal nature of the soft-tissue changes.

2. Focal, several-millimetre, hyperattenuating linear structure within the right middle-to-ventral nasal meatus at the level of 104, surrounded by inflammatory soft tissue and fluid. A small chronic nasal foreign body is considered; alternatively, this may represent a small fragment of turbinate bone associated with the adjacent destructive process. A foreign body is not definitively identified.

3. Mild-to-moderate right mandibular lymphadenomegaly, considered most likely reactive inflammatory lymphadenitis secondary to the ipsilateral nasal

inflammatory process.

4. No significant maxillary dental disease or evidence of an odontogenic source for the nasal changes; dental-associated rhinitis is not identified.

5. Incidental bilateral mandibular salivary gland malposition. In dogs, this is an uncommon, asymptomatic anatomical variation in which the gland is atypically located medial to the masseter and/or digastric muscle and rostral to the retropharyngeal lymph nodes. This is noted on the CT examination and is unlikely to be clinically significant. Recognising this variation on CT is crucial for presurgical planning in the neck region to avoid accidental damage or misinterpretation of the variant as a pathological process.

COMMENTS / RECOMMENDATIONS

Nonspecific rhinitis encompasses a range of inflammatory nasal disorders, including viral, bacterial and allergic causes, with parasitic disease considered less commonly. Severe chronic inflammatory rhinitis, including eosinophilic rhinitis, can occasionally produce surprisingly aggressive imaging appearances, including marked turbinate destruction and mass-like soft-tissue changes that can mimic nasal neoplasia.

In this patient, the absence of a definitive discrete mass lesion and the predominantly fluid/exudative and mucosal soft-tissue component, together with more established turbinate destruction and loss of the normal turbinate pattern, favour chronic inflammatory/destructive rhinitis. Nevertheless, CT cannot reliably distinguish inflammatory rhinitis from infectious/fungal disease, although it is useful for identifying significant changes and directing further investigations.

Sinonasal aspergillosis remains an important differential diagnosis. Typical imaging features may include turbinate destruction, irregular mucosal or mass-like soft tissue, abnormal fluid/gas within the nasal cavity and, in some cases, frontal sinus involvement. The lack of frontal sinus disease and the predominantly rostral-to-mid distribution in this patient are less typical but do not exclude fungal infection.

Rhinoscopy and/or targeted biopsy, with appropriate fungal/infectious testing, are recommended for a definitive diagnosis.

Direct particular attention toward the region of the hyperattenuating linear structure at the level of 104 to determine whether foreign material is present and associated with chronic destructive rhinitis.

CLINICAL HISTORY

2 weeks of on/off sneezing
otherwise bright in himself, clinically nothing of concern, bloods within normal limits, good appetite at home

FINDINGS

HEAD

Nasal cavity and paranasal sinuses:
There is moderate, regionally extensive destruction and loss of the normal turbinate architecture within the rostral-to-mid right nasal cavity, involving predominantly the ventral and middle nasal meatuses. The associated turbinate destruction results in a relatively large gas-filled space within the mid aspect of the right nasal cavity compared with the contralateral side.

Moderate fluid-attenuating, non-enhancing material is present within the ventral aspect of the right nare, extending caudally within the ventral right nasal canal to approximately the level of the 106 tooth. Contrast-enhancing, soft-tissue-attenuating material is present within the ventral nasal meatus at the level of 106–107. Additional soft-tissue- and fluid-attenuating material is present within the right middle and common nasal meatuses at approximately the level of 103–107. There is no clearly delineated discrete or expansile soft-tissue mass lesion. The appearance of this material is considered most compatible with exudate, mucosal thickening/hyperplasia and congestion associated with the underlying rhinitis.

Within the middle-to-ventral right nasal meatus, at approximately the level of the 104 tooth, there is a focal, several-millimetre-long, linear hyperattenuating structure, best appreciated on bone-window multiplanar reconstructions. This is surrounded by contrast-enhancing soft tissue and fluid-attenuating material. The structure is positioned rostral to the larger gas-filled space associated with the more caudal turbinate destruction. This may represent a small mineralised/hyperattenuating foreign body, although a small fragment of turbinate bone associated with the destructive process is an alternative consideration.

The left nasal cavity has preserved turbinate architecture. The nasal septum is normal in appearance, without destruction or significant deviation. The nasal choanae are patent and normal in dimensions.

The maxillary recesses, frontal sinuses and sphenoidal spaces are normally aerated, without appreciable fluid accumulation or significant mucosal thickening. No paranasal bone destruction is identified. In particular, there is no frontal sinus involvement. The cribriform plate is intact, with no evidence of extension of the nasal disease into the cranial vault.

Oral cavity and dentition:

The maxillary dental arcades are unremarkable, with all maxillary teeth present. No significant periapical or periodontal disease is identified, and there is no evidence of dental-associated disease extending into the nasal cavity. Chronic uncomplicated tooth loss is present at 308, 408, 311 and 411. The temporomandibular joints are unremarkable.

Ears and orbits:
The external ear canals and tympanic bullae are normally aerated, with smooth, intact osseous margins. No otic canal or middle-ear effusion is identified. The globes, orbits and periorbital soft tissues are unremarkable.

Intracranial structures:
The visualised intracranial structures are unremarkable. The ventricles are normal in size and morphology. No intracranial mass effect, focal parenchymal abnormality or discrete contrast-enhancing intracranial lesion is identified. The observed enhancement of the meninges and intracranial venous plexuses is considered physiological. There is no evidence of intracranial extension of the nasal disease.

Osseous structures:
The visualised calvarium, nasal bones and occipital region are unremarkable apart from the described right nasal turbinate destruction.

NECK

Lymph nodes:
There is moderate asymmetric enlargement of the right mandibular lymph node chain. The largest/lateral right mandibular lymph node measures approximately 8.5 mm in short-axis diameter, compared with approximately 4.8 mm for the corresponding left-sided lymph node. The medial retropharyngeal lymph nodes are within normal limits. No retropharyngeal mass or abnormal fluid accumulation is identified.

Pharynx, larynx and hyoid apparatus:
The oral cavity, nasopharynx and oropharynx are unremarkable. The palatine tonsillar region and cricopharyngeal region are unremarkable. The larynx and hyoid apparatus are unremarkable. The thyroid glands are within normal limits.

An endotracheal tube is present within the trachea.

Salivary glands:
The parotid, zygomatic and mandibular salivary glands are unremarkable. The sublingual glands are incompletely delineated but without an identified abnormality. The mandibular salivary glands are incidentally positioned relatively medially between the masseter and digastric musculature, respectively; this is deemed an incidental congenital anatomical variation.

Vascular structures:
The visualised major arterial and venous structures are within normal limits.

SPINE

The atlantoaxial articulation is unremarkable.

PROTOCOL

Axial CT Examination of the Head Through C2—Mature Dog
Images: 736
Series: 3
Contrast: Pre- and post-contrast
Windowing: Soft tissue and bone windows

Technique
A multidetector CT examination of the head and cranial cervical spine, extending caudally to C2, was performed. Pre-contrast and post-intravenous contrast-enhanced images were obtained in transverse/axial planes. Images were reviewed using soft-tissue and bone reconstruction/window settings. Multiplanar reconstructions were reviewed where available.

REPORTED BY

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