



## REPORTING SERVICE: MRI

Report number: VETCT-1234

Report date: 07/06/12

Referring Veterinarian: XXX

Referring Practice: XXX

Email address: XXX

Owner: XXX Patient: XXX

Species: XXX Breed: XXX Sex: XXX Age: XXX

Previous report number: None

### Clinical History:

Fluctuant facial mass - first presentation very large - orange sized hard to tell if zygomatic/ parotic/ maxillary gland origins. Lance and drain protinacious material +++, negative extended culture. No obv tracts/FB. Odd hx of similar 3 years ago at prev vets. This time mucocele has returned within two weeks of drainage. (Prev hx of secondary bacterial hepatitis October 2011 due to lymphocytic enteritis (IBD), managed with hypoallergenic diet and on liver supps, Denamarin - previous pre/post prand bile acids in January all WNL)

### Specific Questions to be answered by this imaging study:

Which salivary gland is involved?  
Is there any evidence of a foreign body or tract?

### Number of series (including scouts):

9 MRI series are submitted

**Study dated:** 07/06/2012

**Study received:** 07/06/2012

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It must therefore only be interpreted by a currently licensed and registered veterinary surgeon responsible for the care of this patient.

**Details of study and technical comments:**

Sagittal T2W 3.5mm slices  
Transverse T2W 4mm slices  
Transverse FLAIR 4mm slices  
Transverse T1W + C 4mm slices  
Transverse T1W + C + FATSAT 4mm slices  
Dorsal T1W + C 3.5mm slices  
Transverse SPGR + C 1.2mm slices  
Dorsal SPGR + C 1.1mm slices

The images are of excellent quality, particularly the SPGR series which demonstrate the lesion extremely well. The T1W scan pre-contrast was not received and a re-send has been requested.

**Diagnostic interpretation:**

There is a large undulating tubular and sacculated mass identified along the right aspect of the face. The mass measures 8.1 x 3.6 x 2.6cm (Rocd x DV x ML).

The mass is filled with proteinaceous fluid, showing high signal on T2W images, low signal on T1W images and incomplete suppression on FLAIR. The lesion extends from the base of the right ear caudally to the level of the upper right 3<sup>rd</sup> premolar rostrally. It is extremely well circumscribed and is encapsulated by a thick contrast enhancing rim. The caudal part of the mass is a complex narrow tubular section that arises from the ducts of the right parotid salivary gland (see figure 1). The rostral part of the mass is a much wider diameter structure and is blind ending rostrally. The entire right parotid salivary gland is abnormal. The parenchyma is attenuated and is lacelike, and there are multiple distended tributaries to the main duct identified centrally. The left parotid salivary gland is completely normal in comparison. The lesion creates a mild mass effect, indenting the lateral aspect of the right masseter muscle and displacing the right mandibular salivary gland ventrally.

The rostral aspect of the lesion is close to the normal opening of the parotid duct at the level of the upper fourth premolar. The opening itself is not seen however, nor is an obstructive lesion identified.

The mandibular salivary glands are normal bilaterally. There is a subjective mild enlargement of both the left and right zygomatic salivary glands but no duct enlargement is identified. The sublingual glands are not identified definitively, but this is the normal situation on MRI. The mandibular and retropharyngeal lymph nodes are normal.

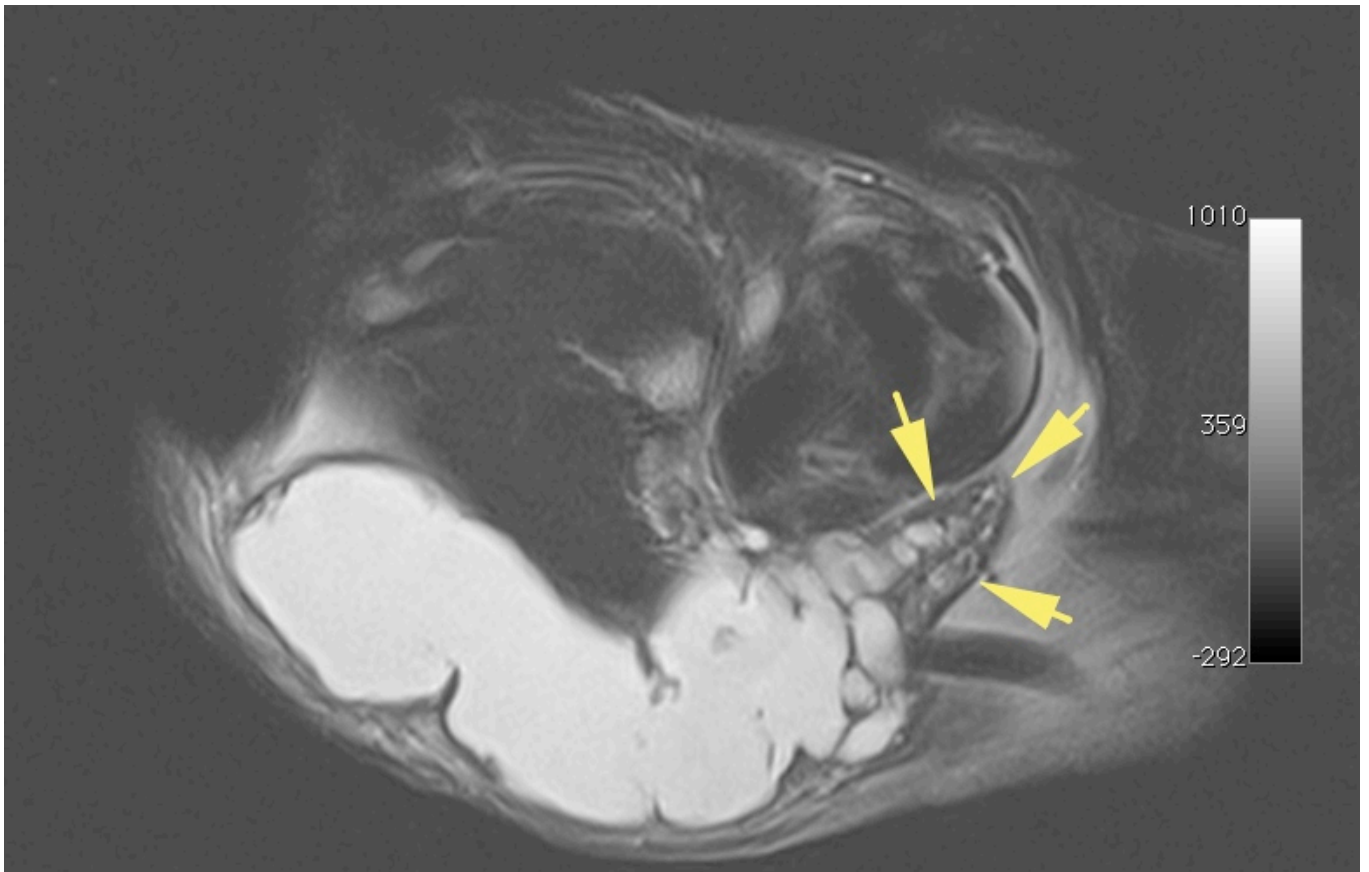
The included portion of the brain, cranial aspect of the cervical spine and the remaining structures of the head are normal.

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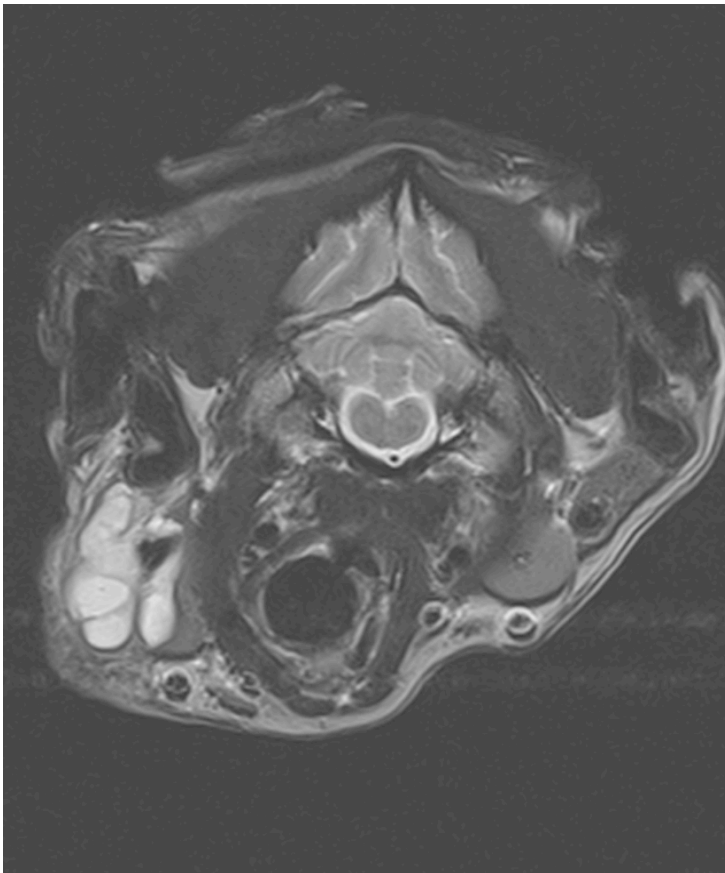
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*Figure 1: T2W sagittal showing the abnormal right parotid duct (yellow arrows)*



*Fig 2 a*

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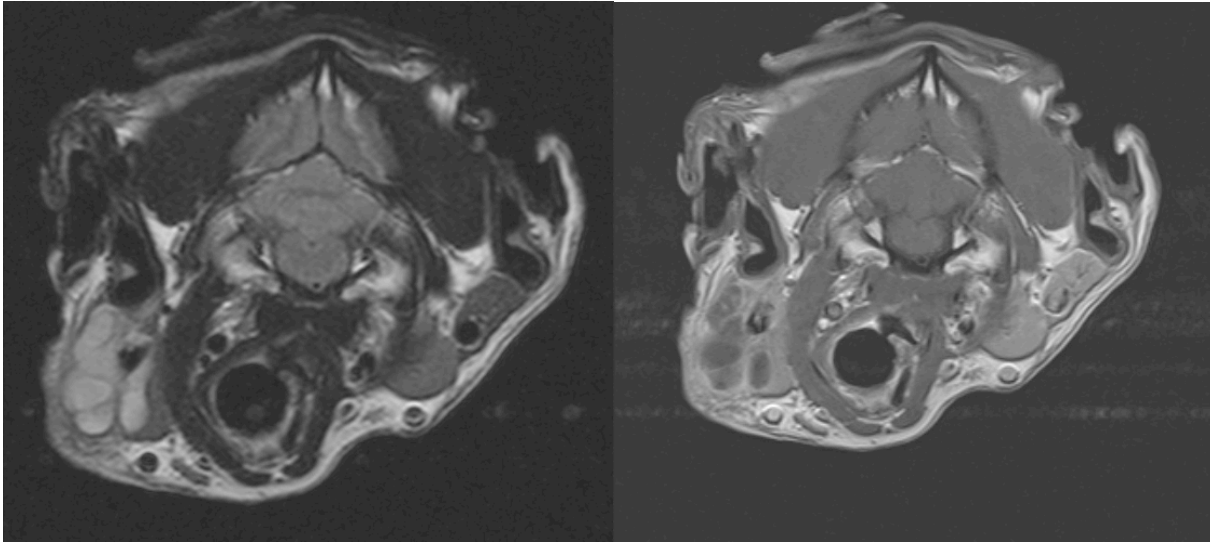


Fig 2 b and c

Figure 2: a (T2W), b (FLAIR) and c (T1W/C) showing the caudal aspect of the tubular lesion.

#### Conclusions:

1. Tubular mass arising from the right parotid salivary gland DDx sialocoele vs chronic obstruction of the right parotid duct at the level of the opening.
2. Abnormal dilation of the right parotid salivary gland ducts and reduction in normal parenchyma. This is probably associated with the chronic sialocoele.

#### Additional comments:

The origin of the lesion within the parotid salivary gland is demonstrated extremely well by this MRI examination.

The imaging changes are consistent with a sialocoele, but the course of the tubular lesion closely follows the path of the parotid duct and as a second differential it is possible that this actually represents a dramatically enlarged parotid duct. This in turn, could be secondary to a congenital or long standing obstruction at the level of the opening of the duct. It may be worth examining the location of the exit of the duct along the mucosal ridge opposite the caudal margin of the 4<sup>th</sup> upper premolar and seeing whether it is possible to cannulate this area. I cannot see a mass/sialolith which could be resulting in an obstruction, but a congenital stricture/ lack of patent opening could be responsible. However, even if this lesion is due to an obstruction and the source of the obstruction can be cleared, I would doubt that the duct would ever return to a normal size and hence resection may be required. I can seek an opinion from a soft tissue surgeon if this would be helpful? Just let me know if we can help further.

#### Reporting Radiologist:

Dr XXX

RCVS and European Specialist in Veterinary Diagnostic Imaging.

If you have any queries regarding this report then please contact the reporting radiologist on the above email address or contact [info@vetctspecialists.com](mailto:info@vetctspecialists.com)

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