

# IMAGING FINDINGS IN A CAT WITH AN INTRACRANIAL ABSCESS SECONDARY TO A TEMPOROMANDIBULAR JOINT PENETRATING WOUND

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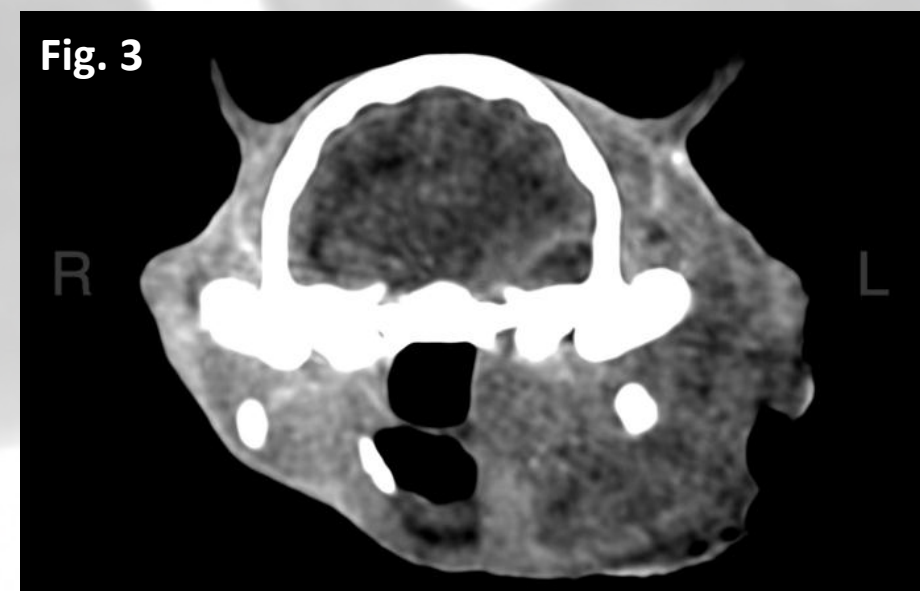
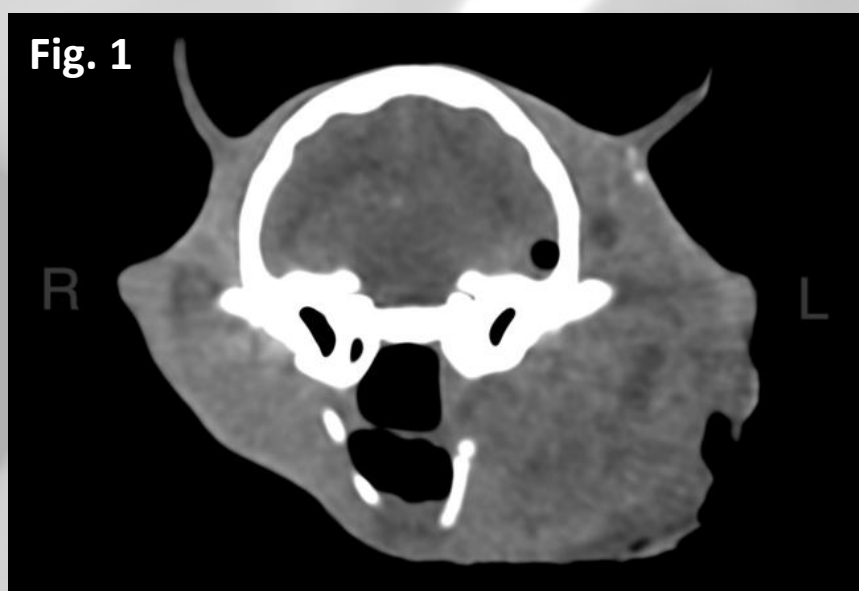
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**INTRODUCTION:** Intracranial abscessation are infrequently seen in cats and arise because of bacterial infection.<sup>1,2</sup>

**METHODS:** Rescue adult male cat presented with poor body condition, suppurative mass ventral to the left zygomatic arch, left eye (LE) exophthalmos and difficulty opening the mouth. A head computed tomography (CT) with contrast administration was performed to provide an appropriated diagnosis.

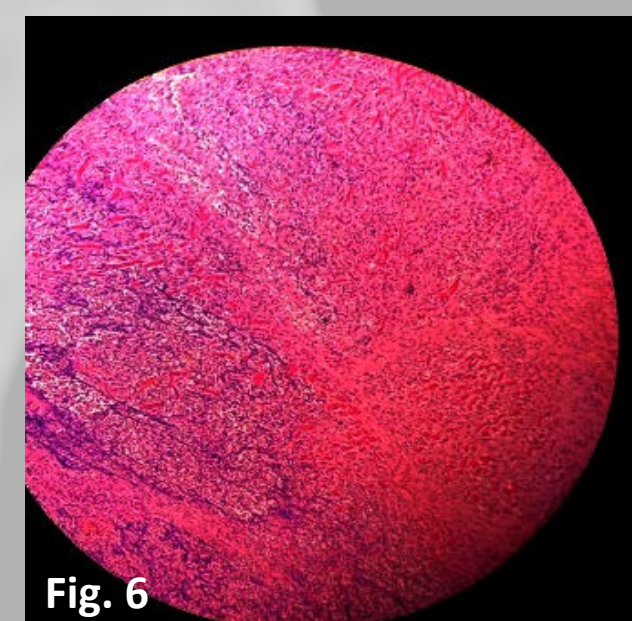
**RESULTS:** CT revealed a big subcutaneous ill-defined heterogeneous soft tissue (50 UH) mass with multiple hypoattenuating areas (28 UH) and moderate contrast enhancement, ventral and lateral to the zygomatic arch and medial to the left mandible (**Fig. 1**). The mass was also invading the retrobulbar space, shifting rostrally the LE (**Fig. 2**). An intracranial extra-axial round soft tissue lesion (37 UH) ventral and lateral to the left temporal lobe with a gas bubble (-500 UH) in the center and mass effect was also observed (**Fig. 3**). After contrast administration a moderate ring enhancement was visualized.

Because of CT findings, and patient poor condition and prognosis, it was euthanatized. Necropsy was carried out and a penetrating wound was found at the level of the left temporomandibular joint (**Fig. 4**) with acute suppurative myositis of the left temporal muscle (**Fig. 6**). The lesion was in direct contact with the left temporal bone, but no destruction was appreciated. Intracranial extra-axial abscess with an intact brain was also observed (**Fig. 5**). All these findings confirmed that the most likely origin was a bite.



**Fig. 1-2:** Transverse and dorsal multiplanar reconstructions of the cranium, show a big subcutaneous soft tissue mass with moderate contrast enhancement, ventral and lateral to the zygomatic arch and medial to the left mandible (Fig.1), invading the retrobulbar space, shifting rostrally the LE (Fig. 2).

**Fig. 3:** Transverse image of the cranium, shows an intracranial extra-axial round soft tissue lesion with moderate ring enhancement, ventral and lateral to the left temporal lobe with mass effect.



**Fig. 4-5:** Images of the cranium show a penetrating wound at the level of the left temporomandibular joint (Fig. 4) with an intracranial extra-axial abscess with an intact brain (Fig. 5).

**Fig. 6:** Microscopic image show the acute suppurative myositis of the left temporal muscle, with loss of muscle structure, necrosis, haemorrhage and inflammatory infiltrate.

**DISCUSSION / CONCLUSION:** Intracranial abscess should be considered as a differential diagnosis in cats with penetrating skull injuries or infections of structures adjacent the brain.<sup>2,3</sup>

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