



Diagnostic Exercise

From The Davis-Thompson Foundation*

Case #248 Month **November**; Year: **2024**

Question sheet

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History: A 5-year-old castrated male Goldendoodle was presented for a week-long history of seizures and lethargy. There were no past health concerns per the owners and the dog was up to date on vaccines and taking monthly preventatives. Due to prognosis and lack of clinical improvement, the patient was euthanized.

Advanced Imaging: Centered within the left frontal lobe there was a large, well-defined, centrally fluid to peripherally soft tissue attenuating, moderately heterogeneously and strongly peripherally contrast-enhancing mass measuring approximately 2.6 cm x 2.1 cm x 4 cm causing a moderate rightward midline shift. A thin rim of normally attenuating brain parenchyma surrounded the caudal aspects of the mass. The mass contacted the rostral meninges and cribriform plate and left aspect of the falx cerebri broadly, and caused mild focal lysis of the cribriform plate. No meningeal thickening or enhancement was noted. There was coning of the cerebellar vermis within the rostral aspect of the foramen magnum, consistent with increased intracranial pressure.

Necropsy findings: A centrally located, tan to white extradural mass was present filling the rostral cranium and was loosely adhered to the dura overlying the right and left frontal lobes. The mass was large, multilobulated measured approximately 3.2 cm x 2.8 cm x 2.1 cm, and was soft to firm. On cut surface, the mass was tan to white with a small central cavitation that contained scant friable material. Removal of the mass revealed a slight indentation in the forebrain and there was mild flattening of the caudal cerebellum. The spaces between the gyri and sulci were mildly narrowed.

Advanced Imaging (Head CT with contrast):

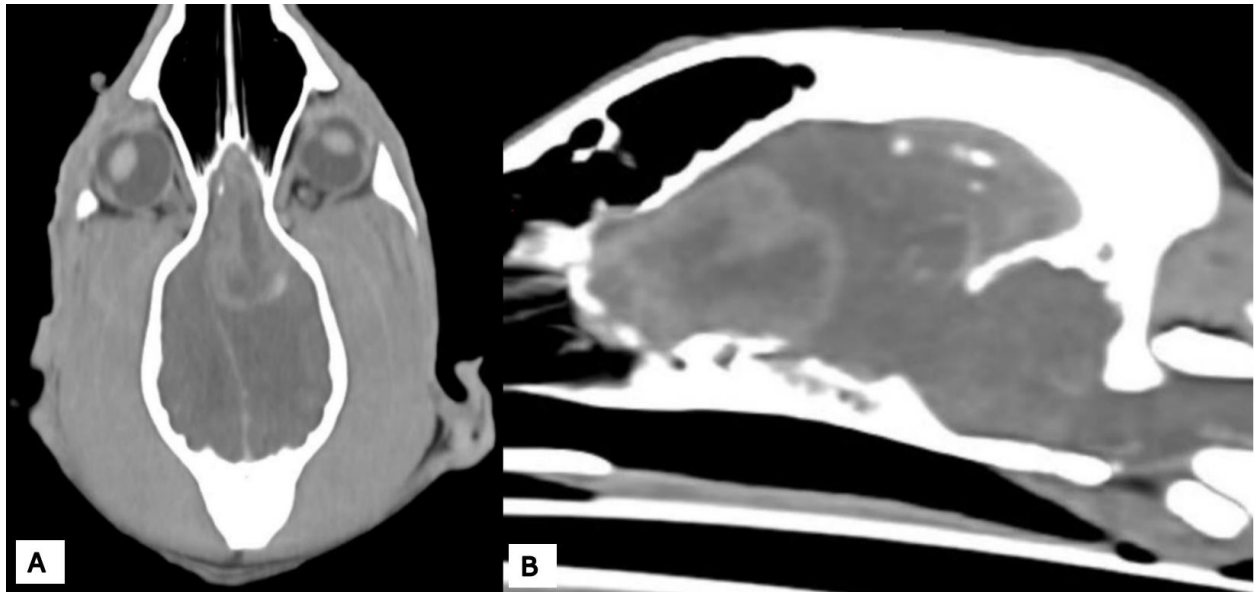


Figure 1.

Gross Findings:

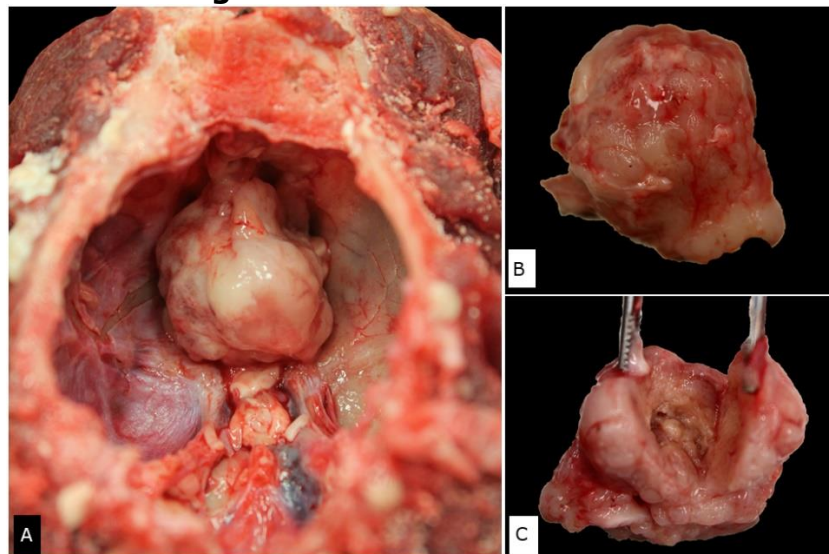


Figure 2.

Microscopic Findings:

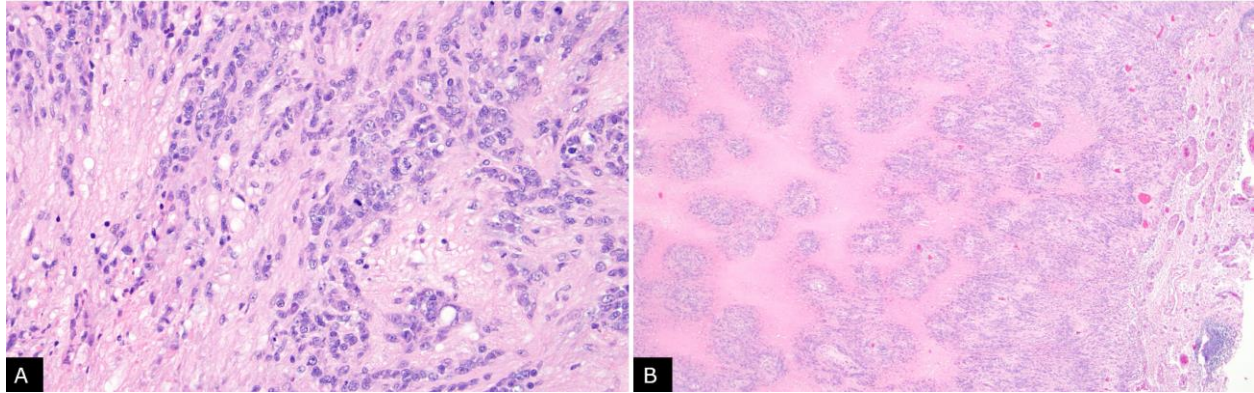


Figure 3.

Follow-up questions:

- *Based on the imaging and gross lesion, what are your differential diagnoses (Figures 1 and 2)?*
- *Describe the microscopic lesions (Figure 3)?*
- *What differentials would you provide based on the gross and microscopic findings?*
- *What immunohistochemical (IHC) markers or special stains would be useful for diagnostic confirmation?*

*The Diagnostic Exercises are an initiative of the Latin Comparative Pathology Group (LCPG), the Latin American subdivision of The Davis-Thompson Foundation (DTF). These exercises are contributed by members and non-members from any country of residence. Consider submitting an exercise! A final document containing this material with answers and a brief discussion will be posted on the DTF website.

(<https://davisthompsonfoundation.org/diagnostic-exercise/>)

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