

Thoracic mass in a dog

Contributors

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Specimen

Fine Needle aspirate biopsy of a thoracic mass

Signalment

12 years old female cross breed dog.

History

The dog was presented on an emergency basis for acute dyspnea following a three-month history of coughing that had shown partial improvement with antibiotic (amoxicillin-clavulanic acid) and corticosteroid therapy. Thoracic radiographs revealed marked pleural effusion, and 1.6 L of fluid were drained by thoracocentesis. The pleural fluid was dark amber in color and moderately turbid. Fluid analysis revealed a total nucleated cell count of 260 cells/ μ L and a total protein concentration of 4.1 g/dL. No neoplastic cells were identified, and the underlying cause of the effusion could not be determined based on fluid analysis alone. The patient was subsequently referred to the oncology service for further investigation of a suspected neoplastic process.

Clinical findings

Initial clinical examination at the referring hospital revealed mild tachypnea, while the remainder of the physical examination was unremarkable. Hematologic and biochemical analyses showed no significant abnormalities.

Thoracic computed tomography (CT) identified an irregular, heterogeneously contrast-enhancing mass within the ventral mediastinum, surrounding the cardiac apex without evidence of diaphragmatic invasion (figure 1)

Fine needle aspiration of the mass was performed for cytologic evaluation (figures 2-3).

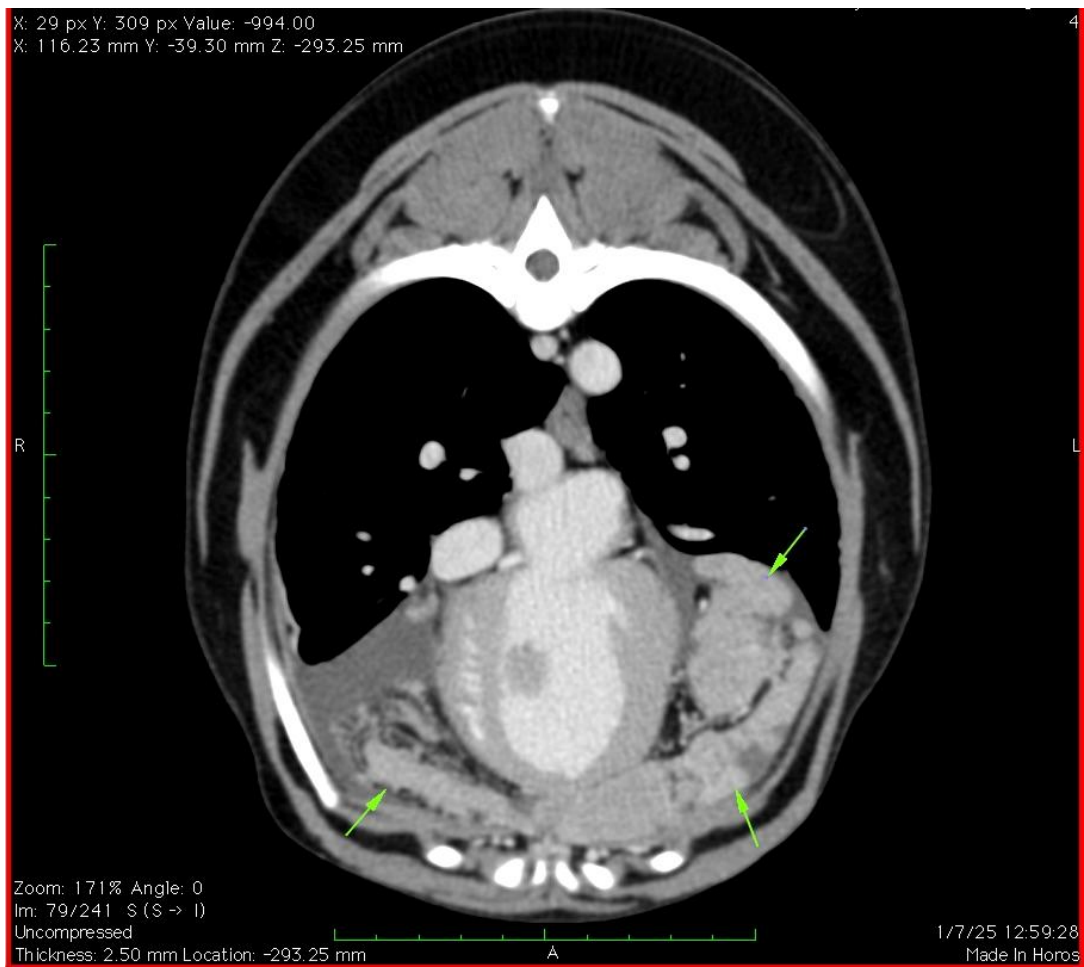


Figure 1. Thoracic CT scan demonstrating a large ventral mediastinal mass (green arrows).

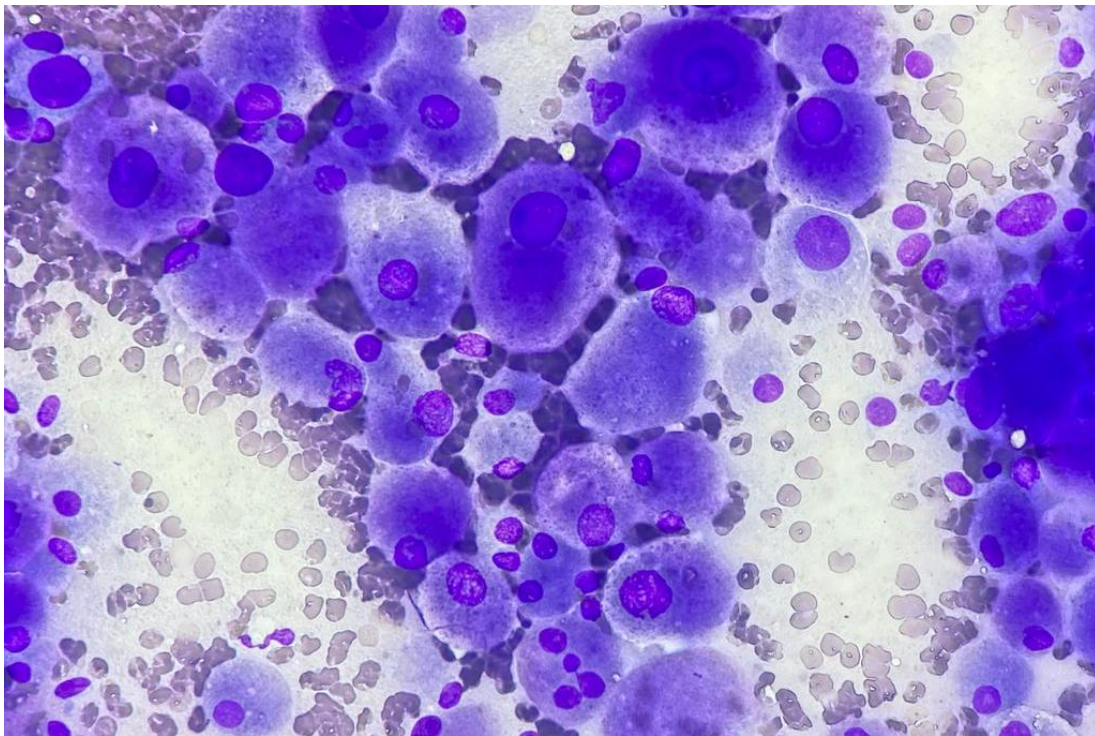


Figure 2. Fine needle aspiration of the thoracic mass (Modified Wright Giemsa) (40x).

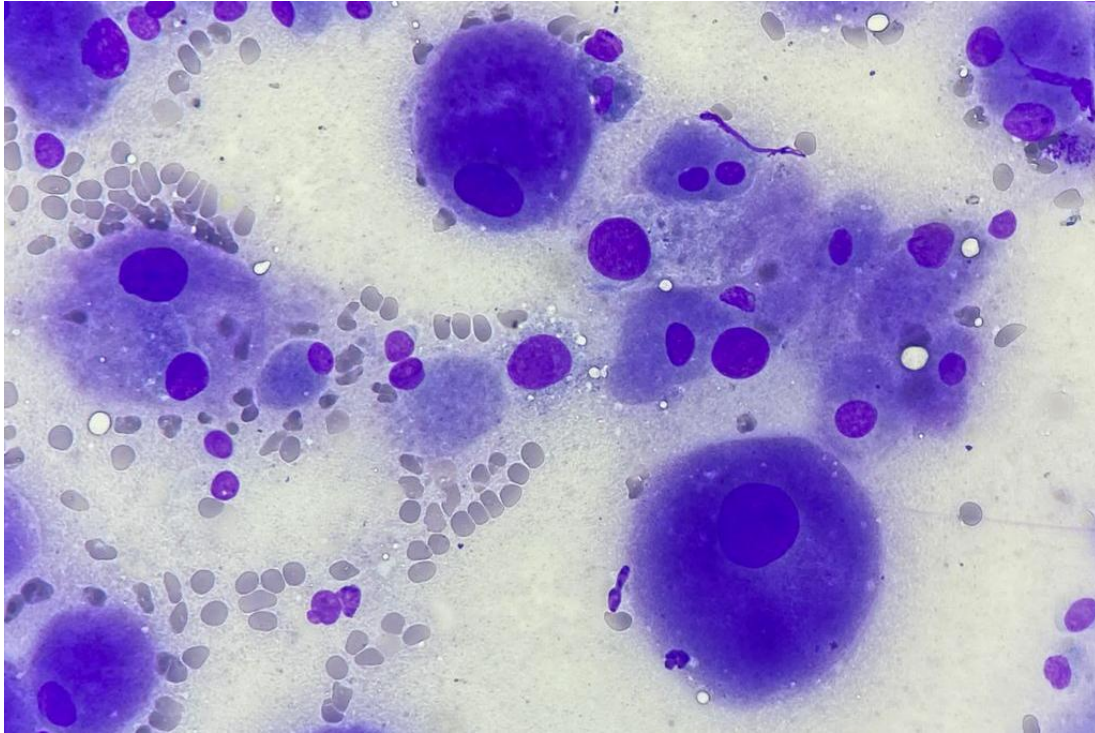


Figure 3. Fine needle aspiration of the thoracic mass (Modified Wright Giemsa) (40x)

Questions

1. What is the cytological description of this lesion?
2. Based on the cytological findings and the location of the mass, what are the differential diagnoses for this lesion?
3. What would be the recommended next steps to further investigate the origin of the mass?