1991

What's Your Radiographic Diagnosis?

E. A. Riedesel

*Iowa State University*

Follow this and additional works at: https://lib.dr.iastate.edu/iowastate_veterinarian

Part of the Neoplasms Commons, Radiology Commons, and the Small or Companion Animal Medicine Commons

Recommended Citation

Available at: https://lib.dr.iastate.edu/iowastate_veterinarian/vol53/iss2/13

This Article is brought to you for free and open access by the Journals at Iowa State University Digital Repository. It has been accepted for inclusion in Iowa State University Veterinarian by an authorized editor of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.
What’s Your Radiographic Diagnosis?

E. A. Riedesel, DVM, DACVR*

Fig. 1: Right lateral and dorsoventral thoracic radiographs of 11 year old, male collie with an enlarging facial mass.

**History**

An eleven year old, male, collie presented for evaluation of a right facial mass. The mass was located rostroventrally to the right eye. Antibiotic therapy was initiated. The mass did not regress and two weeks later it was reevaluated. A small amount of pus was obtained from the mass by needle aspiration. The teeth were cleaned at this time and more antibiotics were dispensed.

The mass began to enlarge rapidly. When the dog was presented to the ISU Veterinary Teaching Hospital, the mass had doubled in size. On physical examination the mass was 4 cm in diameter. It was firm and non-painful. The gingiva around the 4th maxillary premolar and 1st molar was swollen. There was no foul odor from the mouth. All other body systems were normal on physical examination. Two differential diagnoses to be pursued were periapical abscess and neoplasia. Thoracic radiographs were requested (fig. 1).

**Radiographic Findings**

Many 1-3 mm, well defined nodules are identified in all lung lobes. The opacity of these nodules is that of mineralization. No other abnormalities are observed. No soft tissue masses are observed within the lung parenchyma.

**Radiographic Diagnosis**

Pulmonary mineralization compatible with either pulmonary osteomas or calcified granulomas. No evidence of pulmonary metastases.

*Dr. Riedesel is an Associate Professor in the Department of Veterinary Clinical Sciences and Radiology Section leader of the Veterinary Teaching Hospital.*
Discussion

The presence of an enlarged facial mass in an older dog suggested the possibility of neoplasia. It is common practice to survey the lungs radiographically for the presence of metastases before proceeding with specific procedures for suspected neoplasia. Metastatic foci in the lung are typically identified as variable sized soft tissue nodules. It is, however, uncommon for metastatic nodules to be mineralized. The possibilities for very opaque small nodules would more likely be end-on views of pulmonary vessels (perhaps superimposed by rib shadows) or micronodular pulmonary calcification. End-on vessels could be determined by their being along a longitudinal shadow of a vessel (Fig. 2).

Both pulmonary calcification and ossification have been identified in the dog. They cannot be differentiated without microscopic identification. Pulmonary ossification is a form of heterotopic bone formation and is due to calcification of a bony matrix. It has been termed pulmonary osteoma. Their significance is unknown as they are seen in many older normal dogs. Collies and Boxers are the breeds often illustrated in the literature. Micro nodular pulmonary calcification has also been found to be due to old, healed granulomas of histoplasmosis.

References

