Case 08-244

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Signalment

- 2.5 year old female inland bearded dragon (
  *Pogona vitticeps*)
History and Physical Exam

- Over three months became anorexic, lost weight (36 grams) and became lethargic
- Heterophilic leukocytosis with left shift, azurophilia and monocytosis
- Non regenerative anemia
Gross Necropsy Findings

- Thin body condition
- Single 5 X 5 X 4 mm firm white transmural ulcerated nodular mass in proximal portion of stomach
- Gastric melena
- Diffuse severe hepatic lipidosis with multifocal firm nodules throughout
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Morphologic Diagnosis

- Liver: Metastatic gastric neoplasia
Additional Diagnostics

- Churukian schenk stain
  - inconclusive
- Neuron specific enolase
  - positive
- Somatostatin
  - positive
- Ultrastructure
  - neurosecretory granules
Neuron specific enolase
Somatostatin
Morphologic Diagnosis

- Liver: Metastatic gastric neuroendocrine carcinoma
- Somatostatinoma
Discussion

- Neoplasia in bearded dragons is rare
- Myelogenous leukemia/lymphoma is common
- Recent characterization of 10 gastric somatostatinomas in bearded dragons (Ritter, 2008)
Discussion

- Neuroendocrine cells widely distributed
- APUD system
- D cell produces somatostatin
Discussion

- Somatostatin suppresses pancreatic secretion of insulin, glucagon, and pancreatic polypeptides
- Somatostatin inhibits gastrin and gastric acid secretion, gastric and intestinal motility, intestinal absorption and gall bladder contraction

- **Somatostatin syndrome:** diabetes mellitus, hypochlorhydria, pancreatic exocrine insufficiency, and/or gallstones
Conclusions

- Primary neuroendocrine carcinoma of stomach with metastases to liver
- Accompanying hepatic lipidosis and gastric melena
- Aggressive with poor prognosis
- Increasingly recognized
References


- Lyons J, Newman SJ, Greenacre CB, Dunlap J. A gastric neuroendocrine carcinoma expressing somatostatin in a bearded dragon (Pogona vitticeps) - Submitted
Acknowledgements

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Questions?

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