What Is Your Diagnosis?

**History**

An approximately 2.5-year-old sexually intact female bearded dragon (*Pogona vitticeps*) was evaluated for acute onset of listlessness, weakness, and pallor of the entire integument. On initial examination, the bearded dragon was lethargic, pale, and subjectively dehydrated. A serum biochemical analysis revealed a glucose concentration of 502 mg/dL (reference range, 149 to 253 mg/dL) and a uric acid concentration of 10.3 mg/dL (reference range, 1.8 to 7.0 mg/dL). A CBC revealed an Hct of 18% (reference range, 24% to 36%). The bearded dragon was hospitalized overnight and given enteral fluid therapy by gavage tube; the bearded dragon was also soaked in tepid water for 10 minutes. The following day, the bearded dragon was more alert and less pale and was discharged with instructions to soak daily and repeat the serum biochemical analysis in 1 week.

Four days later, the bearded dragon was admitted for a marked decrease in appetite and continued lethargy and pallor since discharge. Physical examination findings were unchanged from those found at the time of initial admission. A follow-up serum biochemical analysis revealed resolution of hyperglycemia (glucose, 196 mg/dL) and hyperuricemia (uric acid, 1.8 mg/dL). Survey radiographs of the whole body were obtained (Figure 1).

Determine whether additional imaging studies are required, or make your diagnosis from Figure 1—then turn the page →

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Diagnostic Imaging Findings and Interpretation

The cardiac silhouette is large on both views and has an irregular contour on the dorsoventral view (Figure 2). There are several round soft tissue opacities best seen on the dorsoventral view in the caudal portion of the coelom consistent with noncalcified ova or ovarian follicles. The remainder of the caudal portion of the coelom is of poor detail, particularly on the lateral view, which is suggestive of intracoelomic effusion. Differential diagnoses for the enlarged cardiac silhouette include pericardial effusion, cardiac mass, or cardiomegaly secondary to heart disease.

On ultrasonographic examination of the cranial portion of the coelomic cavity, a moderately echogenic pericardial effusion is seen (Figure 3). A round, thick-walled, fluid-filled structure is partially visible cranial to the heart. Because of shadowing from the sternum, this structure could not be further evaluated. Ultrasonography of the caudal portion of the coelomic cavity identified approximately 15 round, hypoechoic structures forming grape-like clusters, consistent with ovarian follicles. There were small amounts of anechoic fluid free within the caudal portion of the coelomic cavity.

Comments

Pericardiocentesis was performed with ultrasound guidance and yielded 6 mL of fluid. Results of fluid analysis and cytologic evaluation were consistent with a hemorrhagic effusion. No etiologic agents or neoplastic cells were identified. Although the bearded dragon improved clinically for a few days, it was found dead in its cage 5 days after discharge.

On necropsy, a chronic dissecting aneurysm of the aorta measuring 2.6 x 1.2 x 0.5 cm was found approximately 0.4 cm cranial to the heart. The cavity of the aneurysm did not appear confluent with the lumen of the aorta and was filled with clotted blood. There was approximately 10 mL of hemorrhagic fluid within the pericardial cavity and 10 mL of serosanguinous fluid present in the coelomic cavity. Multiple ovarian follicles measuring 0.4 to 0.7 cm in diameter were also observed. Histologic examination of the aneurysm revealed focal disruption and ulceration of the intimal layer of the aorta. Frequent pockets of lymphocytic inflammation were present within the disrupted intima. A fibrin mat overlay the ulcerated region. Periodic acid–Schiff staining did not reveal any fungal elements. The apparent cause of death was hemorrhage from the aortic aneurysm.

Arterial aneurysms are infrequently seen in dogs and cats and are typically incidental findings. Aneurysms in 2 bearded dragons have recently been reported. Both bearded dragons had visible swellings on the dorsolateral aspect of the neck that were aneurysms originating from the aorta or proximal portion of the internal carotid artery, which expanded cranially and dorsolaterally. Either angiography or cross-sectional imaging (computed tomography and magnetic resonance imaging) was performed in each bearded dragon for antemortem evaluation. One bearded dragon did not undergo treatment and survived for 8 months after diagnosis. The second bearded dragon underwent surgical excision of the aneurysm and survived for 18 months.