LIFE HISTORY NOTES

KINOSTERNON SUBRUBRUM STEINDACHNERI (FLORIDA MUD TURTLE)

PATHOLOGY

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ERYTHMATOUS. The animal appeared healthy. It occasionally attempted to unsuccessfully expel a tartar mass from the cloaca. On 15 April the animal died suddenly, appearing listless for only about one or two days prior to death. A radiograph obtained immediately post-mortem demonstrated a round calcific mass with concentric lamellae apparently lodged in the cloaca. At necropsy, a round calcific calculus measuring 15 x 12 mm was found impacted in the cystic neck (mouth of the urinary bladder) at its entry into the cloaca. The calculus was adherent to the cloacal wall with a surrounding area of chronic inflammatory response with necrotic debris and destruction of a large portion of the penis and cloacal wall. No gross perforation of the cloacal wall or cystic neck was noted. There was mild enlargement of the distal colon, suggestive of a low-grade chronic partial obstruction, but evidently colonic contents had been able to bypass the adherent calculus. Massive distension of the urinary bladder was present, without evidence of cystitis or perforation, suggestive of a high-grade chronic partial obstruction. The kidneys were of normal appearance and size. The rest of the necropsy was unremarkable. A cross-section of the calculus revealed distinct peripheral, hard, yellowish-brown concentric lamellae, with a chalky white dry powder without lamellae in the center. Identification of the calculus components by polarization microscopy supplemented by X-ray diffraction and infrared spectroscopy revealed 100% carbonate apatite, a form of calcium phosphate. The cause of death of the animal was felt to be septicemia from the cloacal infection secondary to the impacted cystic calculus.

The specimen is deposited in my personal collection, AGJR 304. I wish to thank Robert McAuley of the Department of Pathology, Burbank Hospital, Fitchburg, and Edwin Prien of the Laboratory for Stone Research, Newton, for their assistance in these investigations.

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