What Is Your Diagnosis?

History

A 1.5-year-old male Faverolles chicken was presented to the Louisiana State University Veterinary Teaching Hospital because of a soft-tissue wound associated with the dorsolateral aspect of digit 4 of the right foot. The wound was first observed 2 weeks before presentation and appeared to be associated with one of the digit feather follicles. The owners began treating the toe lesion at home with a combination of systemic and topical antibiotic therapies (a store-bought, penicillin-based injectable product and topical, dilute iodine lavage). Per the owners, the wound initially improved with their treatment efforts; however, they were unable to maintain medical therapy. The bird was obtained from a pet store as a chick and had been vaccinated for fowl pox. The bird lived with 20 to 25 other hens and roosters in a large outdoor enclosure, except during the night when they were placed in a coop. The husbandry was considered excellent by veterinary evaluation. The owners also noted that a few birds might have succumbed to Marek’s disease several years previously; however, a definitive diagnosis was never obtained on these suspect cases.

On physical examination, the bird was bright, alert, and responsive with a weight-bearing lameness associated with the right leg. The bird weighed 3.6 kg with a body condition score of 3/5. The wound was associated with digit 4 of the right foot, extending from the digit 4 nail to the distal tarsometatarsus. This region was markedly edematous with the lesion extending to the dorsolateral aspect of digit 3. A 3.5-cm-diameter thick scab that appeared to extend into the subcutaneous tissues characterized the wound (Figs 1a and b). The surrounding tissue was markedly erythematous. The plantar aspect of the foot was unremarkable.

The remainder of the physical examination was unremarkable.

Initial treatment consisted of a long-acting doxycycline hyclate injection (50 mg/kg IM q7d; Vibramycin, Pfizer PFE Switzerland GmbH, Zürich, Switzerland) and meloxicam (1 mg/kg PO q24h). The foot was cleaned with dilute iodine, but the wound was not debrided. A nonadherent bandage was applied to the foot to prevent further contamination.

Two days after admission, the bird appeared to be in less pain and the previously noted lameness had improved. A blood sample was collected from the right jugular vein and was submitted for a complete blood count (CBC) and biochemical analysis. Results of the CBC were unremarkable. A marked increase in creatine kinase (CK) activity was noted (43 120 U/L; reference interval, 100–200 U/L) along with a moderate increase in activity of aspartate aminotransferase (AST) (765 U/L; reference interval, 20–350 U/L). The remaining biochemical parameters were within the reference intervals. For further diagnostic testing, the bird was induced with 5% isoflurane delivered via facemask in a 1.5-L flow of oxygen. Once induced, the patient was intubated with an uncuffed, 4.5-mm endotracheal tube and maintained on 2.0%–2.5% isoflurane and a 1.5-L flow of oxygen. Radiographs of the whole body and collimated views of the right foot were performed under general anesthesia. A circumferential soft-tissue swelling of the right digit 4 was observed, but no evidence of bone remodeling was visible. An enlarged soft-tissue structure consistent with spleen or gonads was observed. Mineralization associated with another soft-tissue opacity in the region of the kidneys was also observed (Fig 2). The bird recovered from anesthesia uneventfully.