What Is Your Diagnosis?

**History**

A 3-year-old 3.4-kg (7.48-lb) castrated male rabbit was evaluated because of a 2.5-year history of intermittent gastrointestinal stasis and intermittent voluminous soft feces. On physical examination, the rabbit was obese and lethargic and had signs of mild abdominal discomfort on palpation. Results of fecal flotation did not reveal intestinal parasites. Radiographs of the abdomen were obtained (Fig 1).

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

---

This report was submitted by Alexander Wolf, DVM; Armando R. Irizarry Rovira, DVM, DACVP; Karen L. Miller, DVM; and William R. Widmer, DVM, MS, DACVR, from the Avian and Exotic Animal Clinic of Lafayette, 415 N Earl Ave, Lafayette, IN 47904 (Wolf); the Departments of Veterinary Pathobiology (Irizarry Rovira) and Veterinary Clinical Sciences (Widmer), School of Veterinary Medicine, Purdue University, West Lafayette, IN 47907; and Lafayette Veterinary Hospital, 3532 State Rd 26 E, Lafayette, IN 47905 (Miller).

Address correspondence to Dr. Irizarry Rovira.
Diagnosis

Radiographic diagnosis—Two well-circumscribed, mineralized opacities in the left caudal quadrant of the abdomen. The larger of the 2 opacities appears to be within a soft tissue mass (Fig 2).

Comments

Lactated Ringer’s solution (120 ml, SC), petrolatum (3 ml, PO, q 8 h), and butorphanol (0.1 mg/kg [0.045 mg/lb], PO, q 6 h) were administered, and the rabbit was sent home with instructions to the owner to continue to administer the medications and hand feed green leafy vegetables with the expectation that a foreign body would pass with the feces. Appetite improved and the rabbit was returned 2 days later for follow-up radiographs. The radiopaque mass remained in the same general location. Differential diagnoses included foreign body, dystrophic mineralization of a degenerative, neoplastic, or inflammatory process, or mineralized peritoneoliths. Although there was no evidence of intestinal distention or segmental ileus, nonobstructing foreign body was considered and an exploratory laparotomy was performed. After careful examination and palpation of the intestines, an intestinal foreign body was not found; however, a white, mineralized, firm mass was found embedded within the mesenteric fat in the same location of the larger radiopaque mass identified radiographically. Several smaller, hard, motiled, reddish-gray masses were found throughout the peritoneal cavity in subserosal locations. The large mass and 1 of the smaller masses were excised and submitted for histologic examination. The masses consisted of individual larval cestode parasite cysticerci in various stages of degeneration and dystrophic mineralization. Each cysticercus had a single scolex with hooks and muscular suckers, a body-tegument with numerous calcareous corpuscles, and no coelomic cavity. On the basis of these characteristics and the location of the cysts, the larvae were likely those of *Taenia pisiformis*.

Rabbits with intestinal foreign bodies may have various clinical signs including anorexia, gas, gastric dilatation, signs of abdominal pain, and diarrhea. Radiography is helpful in identifying gastrointestinal foreign bodies; radiographs should be examined for radiopaque bodies, gaseous distention of the stomach or intestines, and the accumulation of large amounts of ingesta and gas in any rabbit that has been anorectic for several days. In this rabbit, the radiopaque mass in the area of the intestines suggested that an intestinal foreign body was present. The fact that it had not changed in position for 3 days was cause for concern and the reason an exploratory laparotomy was performed. Although not used in this case, a gastrointestinal contrast study with barium sulfate or ultrasonographic examination would have been helpful in determining that this mass was outside of the intestines.

*Taenia pisiformis* is an intestinal cestode of dogs, cats, wolves, coyotes, foxes, lynx, and other carnivores. Rabbits, hares, and other rodents are intermediate hosts. Infestation is particularly common in suburban, farm, and hunting dogs that eat rabbits and rabbit viscera. In the present case, the owner did not have any dogs or cats; however, the rabbit was allowed to eat grass from an unfenced backyard, where foxes and dogs were known to roam freely. It is likely that the rabbit consumed grass contaminated with infected fecal material.

Survey radiographs obtained after surgery were typified by the absence of the mineralized opacities that were evident before surgery. The rabbit received 2 injections of praziquantel (5 mg/kg [2.27 mg/lb], SC) 10 days apart and, to date, appetite and defecation are normal. Except in heavy infestations, *Taenia pisiformis* larval cysticerci are not known to cause severe clinical disease. It is unknown how long this rabbit had been infected and whether the clinical signs were associated with the decaying cysticerci.