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Answer to January 2021 Photo Quiz

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Answer to Photo Quiz: Articular Pentastomiasis

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In our case, observed foreign bodies appeared very similar to nymphs of the pentastome, namely, cylindrical nymphs with approximately 20 spiral rings and a ventrally located mouth. However, the size of the observed nymphs seemed small compared to what is reported in the literature. Finally, a PCR was performed according to Tappe et al. (1), targeting the mitochondrial *Armillifer* cytochrome oxidase subunit I gene, and confirmed the suspected diagnosis. Pentastomiasis is an uncommon parasitic zoonosis caused by larval or adult stages of several species of pentastomes according to visceral or nasopharyngeal pentastomiasis. Pentastomes are crustaceans. In humans, 3 pentastome families, i.e., *Linguatulidae*, *Armilliferidae*, and *Porocephalidae* (2), cause clinical infections, from which 2 species, i.e., *Linguatula serrata* and *Armillifer armillatus*, are most commonly (>90%) found. *L. serrata* is widespread, and adults are found in the nasopharynx of dogs, wolves, and other carnivores. *A. armillatus* is encountered in Africa, and adults are found in the respiratory tract of pythons. Humans may accidentally act as intermediate hosts (1, 2). Contamination occurs by ingestion of the parasite's ova or nymphal stages. Ova or nymphs may be found in undercooked meat (snake meat, ovine liver, etc.). Ova could also be found in food contaminated by feces or respiratory secretions from the definitive hosts. The larva hatches in the digestive tract and invades the viscera. Nymph migration can persist for several years and may be associated with symptoms, but human infections are usually asymptomatic. Pentastomes usually affect human soft tissue (lung, nasal cavity, eye, oropharynx, or other viscera). Bone infection has been reported (3); to our knowledge, we present an initial report of articular involvement. Patients may develop abdominal pain, chronic cough, night sweats, or even clinical or radiological symptoms similar to those of malignancy (2, 4–6). While diagnosis may be guided by mild eosinophilia and the radiological presence of horseshoe- or C-shaped calcified nymphs, most often diagnosis is obtained with histo/cytopathological examination (2). Mature infective nymphs of *Armillifer* spp. are cylindrical and have approximately 20 prominent spiral rings: the size and annulations of nymphs depend on the species. Nymphs of *L. serrata* are flat and slightly annulated, and they have 72 to 92 body segments. All pentastomid nymphs possess a ventrally located mouth, large acidophilic glands in anterior regions, a digestive system, and primordial genital organs. Among pentastomes observed in humans, only *L. serrata* nymphs possess spines on the parasite's cuticle (2, 7). No specific anti-pentastome agent is presently available. In asymptomatic subjects, no treatment appears necessary, and in symptomatic cases with high parasitological load, surgery should be considered (2).

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