CAUSE OF DEATHS IN KITTENS

Q.: Two litters of 3-week-old kittens (8 in all) were presented because other litters in the cattery had recently been lost at this age. The sudden deaths of the previous litters had been attributed to intestinal parasitism. Though the 8 kittens were being raised in a clean back porch, one had been found dead on the morning they were presented. They were clean, well-nourished, normally active, and had normal temperatures, pink mucosae, and no abnormal discharges. Fecal smears from 2 kittens were negative and there were no ear mites, but a few fleas were present. Both queens were apparently healthy. Within the following week all of the kittens died suddenly, suffering convulsions prior to death. Though there was no evidence of diarrhea or any gross lesions, coccidia were demonstrated at necropsy. One cadaver has been retained in a frozen state. Can you suggest possible causes or a method for determining the cause?—L., Mississippi.

A.: There is certainly no obvious answer to this question. My suspicions would be directed to acute and severe enteritis or to toxic exposure to chlorinated hydrocarbons. Because no gross lesions were seen at necropsy, we probably can rule out acute enteritis. Chlorinated hydrocarbons in the form of worming medications or flea sprays must be considered as a cause. The owner may be treating the kittens for worms at an early age because of previous losses due to parasitism, or he may be spraying the kittens or queens with an insecticide. Many potent anthelmintics contain tetrachlorethylene or toluene, and many sprays contain lindane or chlordane to which kittens may be very susceptible. Intoxication caused by these agents is characterized by convulsions and sudden death. Worming would probably cause the signs to appear in nearly all of the kittens at once, while sprays may be licked or absorbed in variable amounts and produce signs at different times. The frozen specimen may be submitted for a routine necropsy and analysis for suspected toxic materials. Freezing will distort tissues and refrigeration without freezing would have been better.—J. C. Blakemore, DVM, Purdue University.

Editor's Note: I believe that panleukopenia virus could be responsible for these deaths despite the failure to find gross lesions at necropsy. Many veterinarians have observed sudden deaths in kittens (1-4 months old), which had appeared to be healthy 6-8 hours before being found moribund or dead. There may not be gross lesions in such cases, although changes in the consistency of bone marrow may be overlooked. When 3-4 weeks of age, maternal immunity could conceivably be lost, and susceptible kittens could be overwhelmed then by a highly virulent virus. I suggest that a search for inclusion bodies also be made. —*EJC.*