Bile Duct Adenocarcinoma in a Pallid Bat
(antrozous pallidus)

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Bats are common feral mammals in the United States, and are often maintained in zoos for extended periods of time, often for their life span of 5 to 10 yr (Thomas, pers. comm.). They are also maintained to a certain extent as a laboratory research animal, where they are available for observation and study. Numerous feral bats are also examined in laboratories for rabies surveillance programs, and in example, our department processes approximately 100 bats annually.

It is somewhat surprising, therefore, that reports of neoplasms in bats are rare. It may be that most which die in captivity are not examined to determine the cause of death. A search of the literature has produced a single case of a malignant neoplasm in a bat, and this was described as a cutaneous leiomyosarcoma in a long-eared bat (Plecotus townsendii virginianus) (Conrad, 1969, J. Natl. Cancer Inst. 35: 95-101).

This case report of a malignant neoplasm in a pallid bat was the result of a routine necropsy examination, part of a surveillance program for the prevalence of bat rabies.

The pallid bat is distributed from western North America to Central Mexico. It is primarily insectivorous, nocturnal, and usually lives in caves, rock crevices, and tree cavities (Walker, 1964, Mammals of the World, Johns Hopkins Press, Baltimore, Maryland 375 pp.)

The 6 cm long female bat described in this report was one of a pair received by the Los Angeles Zoo in 1969. They had been on display in the zoo since then, and were provided a diet of larval meal worms (Tenebrio molitor), started in red bran kept moist with pieces of apple. They were fed every second day.

The bat was found dead in the bottom of the cage in late November, 1975, and it had been noted to be acting abnormally the day before. A necropsy was performed, and tissues were fixed in 10% buffered formalin, processed in the usual manner, and tissue sections were stained with H&E and by the PAS staining reaction. Fungal cultures were made from the bran in which the meal worms were maintained.

There was about 3 ml of clear yellow ascitic fluid in the peritoneal cavity, and a firm white lesion, 0.3 × 0.3 × 0.4 cm was present in the left lobe of the liver, apparently confined to that lobe but infiltrating the adjacent liver parenchyma. The peritoneum was normal. Approximately 1 ml of dark clotted blood was found in the stomach, and some blood was present in the esophagus. No grossly visible mucosal lesions could be identified as the source of the esophageal hemorrhage. All other tissues were normal grossly.

Microscopic examination of tissues demonstrated a moderate amount of anthracotic pneumoconiosis along the bronchial and bronchiolar lymphatics. Hemorrhage was present in the muscular wall and submucosa, as well as intraluminally in the fundic area of the stomach. The serosal side of the fundus contained prominent venous and

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