AVIAN PARASITIC (Sarconema eurycerca) PANCARDITIS

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Sarconema eurycerca, Wehr, 1939, occurs in the heart of whistling swans in Washington, D. C., Wisconsin, and Utah, and in *Branta canadensis* (Wehr, July, 1939, Proc. helminth. Soc. Wash., 6(2): 95-97; Quortrup, and Holt, 1940, J. Amer. Vet. Med. Assoc., 96: 543-544; Locke, 1967, Private communication).

The author is unaware of any published description of the cardiac lesions produced by this genera and species of Filarioidea.

The following description is based on the examination of tissues obtained at necropsy from a whistling swan, *Cygnus columbianus,* at the National Zoological Park, Washington, D.C. The bird was apparently normal up to the time of death. The cause of death was attributed to heart failure as a result of the cardiac lesions. Macroscopically, there were yellowish-tan foci, 1 to 2 mm in size, scattered over the epicardial and endocardial surfaces of the heart and throughout the myocardium. Microscopically, there were numeorus adult nematode parasites present in the myocardium and in the endocardium just beneath the endothelium (Figure 1). The adult parasites had morphological characteristics identical to those of *Sarconema eurycerca.* There were only occasional inflammatory cells and infrequent mineral deposits immediately adjacent to the adult parasites. Empty circular spaces, often partially filled with erythrocytes, leukocytes, and partially mineralized necrotic debris were scattered throughout the myocardium (Figures 1 and 2). These were interpreted as being necrotic tracts that resulted from migrations of the parasites.

Widespread inflammatory and degene-

FIGURE 1. *Adult* Sarconema *within the myocardium and endocardium and adjacent necrotic tracts. H & E, X 40.*

FIGURE 2. *Adult* Sarconema *and adjacent necrotic tract partially filled with erythrocytes. H & E, X 150.*

FIGURE 3. *Inflammation and coagulative necrosis of the myocardium. Viable myocardial cells = black. Necrotic myocardial cells and fibrous connective tissue = grey. Heidenhain's "Azan" Triple Stain, X 150.*

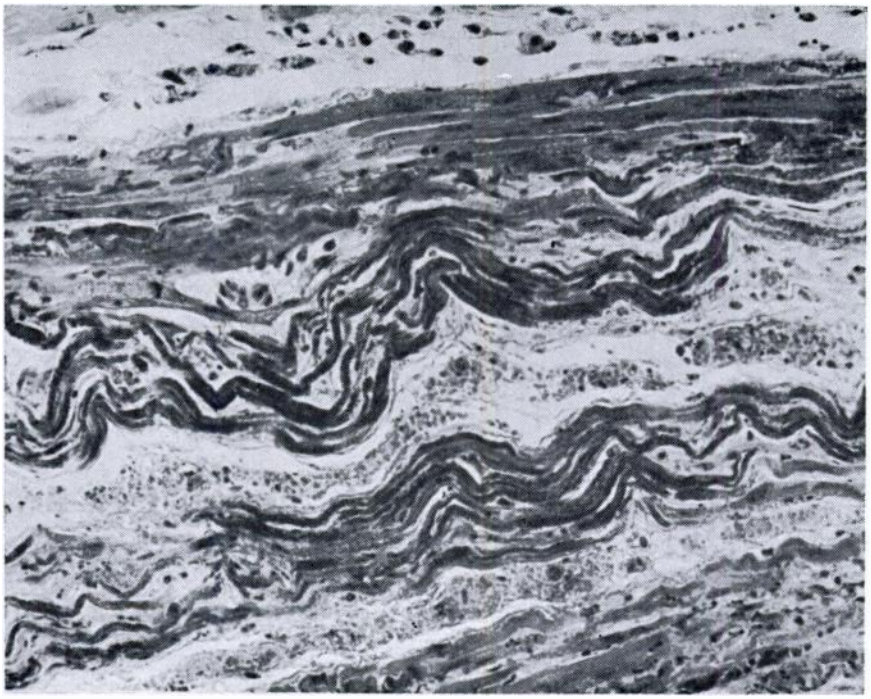

FIGURE 4. *Necrotic myocardial cells that contain numerous basophilic granules. H & E, X 375.*

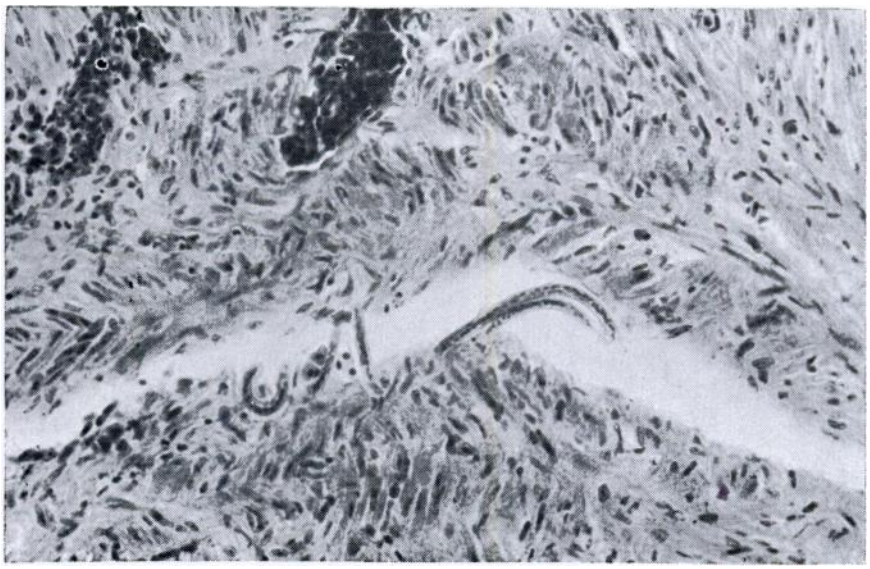

FIGURE 5. *Microfilariae in the myocardium. H & E, X 375.*

rative changes were present throughout the myocardium. Multiple focal hemorrhages, some of which contained deposits of hemosiderin pigment at their margins, were scattered throughout the heart muscle. There were multiple focal areas of coagulative necrosis characterized by loss of nuclei and striations and fragmentation of myocardial fibers (Figure 3). There were scattered foci in which the myocardial fibers formed a zigzag pattern and contained numerous strongly basophilic granules in their sarcoplasm (Figure 4). In some areas, there was complete lysis of myocardial cells, and in others, there were linear mineral deposits. There were diffuse collections of heterophiles, lymphocytes, and macrophages in the areas of necrosis (Figure 3). Interstitial fibrosis was present throughout the myocardium.

Multiple focal areas of chronic inflammation characterized by fibrin deposition, fibrosis, collections of macrophages, lymphocytes and heterophiles, and mineral deposits were present in the epicardium and endocardium.

Microfilariae were present in the myocardium, coronary vessels, lumens of the ventricles, and in pulmonary vessels (Figure 5).

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MORE ABSTRACTS OF PAPERS PRESENTED AT THE 1967 ANNUAL WILDLIFE DISEASE CONFERENCE URBANA, ILLINOIS JUNE 15-16, 1967

PATHOLOGY SURVEY IN SMALL MAMMALS*

G. E. COSGROVE and P. B. DUNAWAY, *Oak Ridge National Laboratory, Oak Ridge, Tennessee;* T. P. O'FARRELL, *Pacific Northwest Laboratory, Richland, Washington;* J. A. PAYNE, *Clemson University, Clemson, South Carolina;* and H. E. CHILDS, Jr., *Cerritos College, Norwalk, California*

During the course of studies on the effects of low-level radiocontamination and on the radiosensitivity of small native mammals, considerable pathologic information has been accumulated on 881 control, unirradiated mammals. Live-trapped mammals were sacrificed on return to the laboratory or after relatively short laboratory holding periods. The completeness of the post-mortem examination varied. Histologic preparation were made from major viscera and sites of lesio ıs. Examples of various lesions and their predilection for certain mammalian species were presented.

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