

## THE SPONTANEOUS OCCURENCE OF CARDIO-VASCULAR DISEASES IN THE DOG

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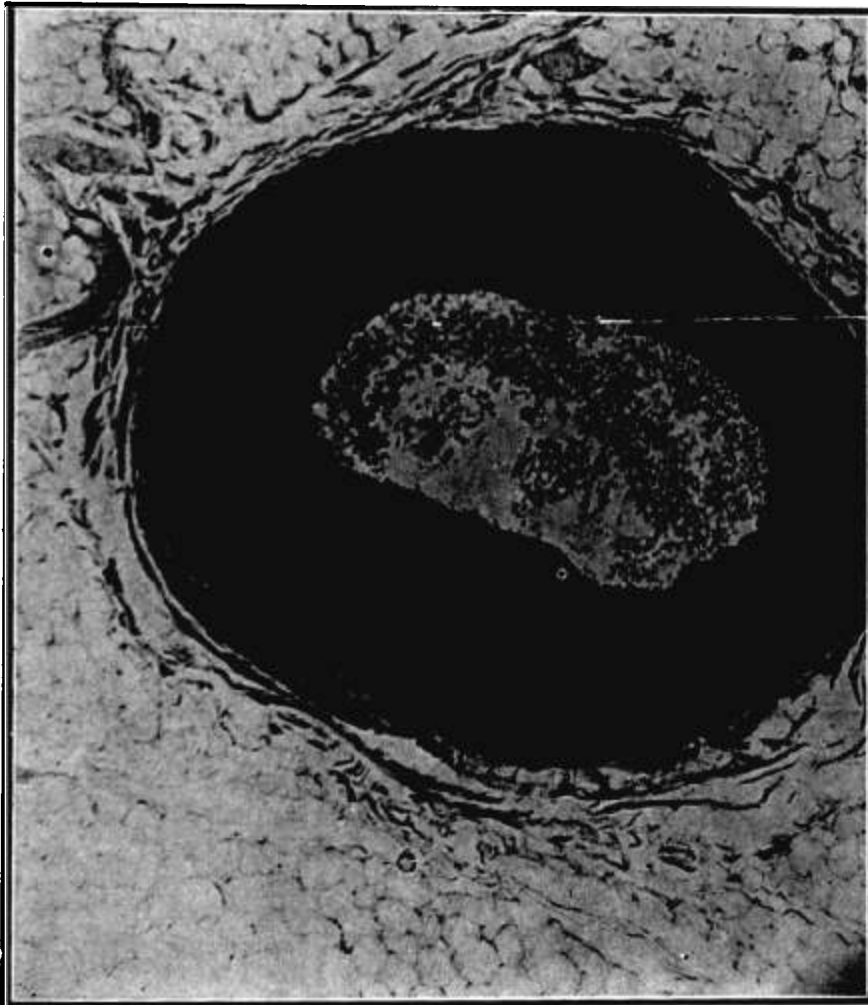
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The following article should be considered as a laboratory note and not as a scientific investigation. In reviewing the literature on the subject, one is struck by the fact that

value to investigators who are working along the lines of experimental pathology and pharmacology.

The material which forms the basis of this



Transverse section of the anterior coronary artery, showing a localized thickening of the internal coat.

there are so few reports of morbid changes occurring spontaneously in the lower animals. They do, of course, necessarily occur, and reports of their character should be of some

report was obtained from three dogs which died unexpectedly during morphine-ether anesthetics. The first animal died at the commencement of the administration of ether.

Death was preceded by violent struggling on the part of the partially anesthetised dog. The heart was large and pale and covered, especially around the coronary vessels, by an abundance of fat. Sections of the heart muscle showed a late stage of fatty degeneration of the muscle cells and a pronounced fatty infiltration. The coronary vessels were small, tortuous, and evidently sclerotic. Sections of the anterior coronary artery showed numerous patches of thickening of the intima, some of which were beginning to degenerate into atheromatous ulcers.

The second animal succumbed soon after the commencement of an experiment, but before any operative or other procedures had been instituted to which the death could be ascribed. From the first observation the dog's blood pressure was unusually low and the heart slow and weak.

The post-mortem showed an advanced

fibroid heart with only slight changes in the coronary vessels and aorta. Sections from the heart showed a diffuse connective tissue overgrowth with atrophy of the muscle cells. In several areas the muscular element had been entirely replaced by connective tissue, which was thoroughly fibrous and contained only a few nuclei.

The third subject was an old dog; took ether poorly, and died suddenly during an experiment. Just prior to his death the heart's action, which was under observation, was good and the blood pressure was high. The post-mortem showed marked sclerosis of the mitral and aortic valves. The aortic valves, in addition to the diffuse thickening, presented several beads along their free margin. The aorta was diffusely sclerotic, the change being most evident in the middle coat and in the upper portion of the vessel.