Section of Medicine

President E R Cullinan MD

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Short Papers

Arteriosclerosis in Wild Animals in Captivity [*Abstract*]

by R Finlayson MD and
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A study has been made of the arterial lesions occurring in captive animals. The specimens were obtained at post-mortem from 366 birds, 185 mammals and 69 reptiles. The majority of specimens were obtained from animals that died in the London Zoological Gardens; a few specimens were received from private individuals. The heart and attached vessels, sometimes including the complete aortæ and branch arteries, were examined macroscopically and histologically. Lipid-containing areas in arteries were picked out by staining with Sudan IV in the gross specimen and by suitable fat stains in microscopic sections. Lesions were divided into two groups: (1) Those containing lipid. (2) A mixed group which included focal intimal thickenings without lipid deposition; medial degeneration and calcific lesions of the media and the various forms of arteritis. The first group was further divided into lesions in which fatty streaking was the only change and others in which atherosclerotic plaque formation was present.

Fatty streaking was found in 21% of birds, 21% of mammals and in only 2% of reptiles. Atherosclerotic changes were present in an additional 19% of birds, 3% of mammals and one reptile only. Fatty streaking thus occurred as frequently in birds as in mammals but the atherosclerotic lesion was considerably more common in birds. This may have been a reflection of the age grouping of the species, as the birds tended to be older whilst many of the mammals died young. The earliest accumulations of lipid were usually present as small irregular patches at the junction of the aorta and its large branches; the larger atheromatous lesions were found as commonly in the thoracic aorta as in the abdominal segment. Variations in the histological detail of plaques were observed in specimens from different animals and, in some instances, from the same animal. The lipid present was usually of two types: sudanophilic droplets and non-sudanophilic, anisotropic crystals with the staining properties of 'cholesterol'. The lesions did not progress to local ulceration, and mural and occlusive thrombus formation was extremely uncommon. Atherosclerosis was rarely found in the coronary arteries.

Further studies are in progress to extend our knowledge of arterial disease in animals and a survey is being made in an attempt to relate diet, age, stress and blood lipid levels to the lesions of atherosclerosis.

This work has been done in collaboration with Mr R N T-W-Fiennes and we are indebted to him and others for help.

Five Cases of Syphilitic Hepar Lobatum with Portal Obstruction

by Gabor Gencsi MD[1] (for Alan Hunt MCh)

In each of these 5 syphilitic patients with portal hypertension the liver was found at laparotomy to be coarsely and irregularly lobulated, showing an appearance which has been described as 'hepar lobatum', a grotesque deformity characteristically resulting from tertiary syphilis.

Case 1 Male, aged 53 (Dr C S Nicol's case, Nicol & Terry 1951, Nicol 1952)
1944: Hæmatemesis. 1946: Liver and spleen found to be enlarged. 1947: The abdomen began to swell and paracentesis for his ascites was necessary. He was thought to be a case of Laennec's cirrhosis, and medical therapy for this disease was started. As there was no improvement and because the serological tests for syphilis were positive, penicillin therapy was begun (21.11.47); forty-eight hours later diuresis com-

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