

The mean body weights of the dogs fed the silicone are shown in chart 1. Since these dogs were nearly full grown at the start of the test, no great changes in weight were to be expected. The initial drop in body weight in all the dogs was related directly to an attack of distemper from which they recovered after six weeks, following treatment with canine distemper serum.

The erythrocyte, leukocyte and differential counts, the concentration of hemoglobin and the hematocrit tests showed only slight random fluctuations. The qualitative urine tests for sugar, protein and acetone bodies, as well as the microscopic examination, gave negative results throughout the experiment.

GROSS CHANGES OF ORGANS AND TISSUES

Dogs D-725 and D-926 were fed an uncontaminated diet. Dog D-725 suffered from a slight hookworm infestation. The lymph nodes of the mesentery and the paraaortic region were found to be moderately enlarged, soft and moist. The lymphoid aggregates of the small intestine were prominent. Dog D-926 showed no gross changes.

Dogs D-726 and D-727 were fed 0.3 Gm./Kg. of the antifoaming agent. These animals presented no gross abnormalities.

Dogs D-721 and D-728 were fed 1.0 Gm./Kg. of the antifoaming agent. Dog D-721 harbored several thin roundworms, presumably immature ascarides, in the small intestine. A smear of the fecal content failed to reveal ova. The intestinal lymphoid aggregates were prominent. Dog D-728 presented no abnormalities.

Dogs D-722 and D-927 were fed 3.0 Gm./Kg. of the antifoaming agent. In both dogs the mucosa of the whole intestinal tract was covered with a thin layer of viscid, gray-white material, which was removed with difficulty. Dog D-722 was also heavily infested with roundworms which were believed to be immature ascarides. The lymphoid aggregates of the small intestine were enlarged. Dog D-927 presented no abnormality other than that mentioned above.

MICROSCOPIC CHANGES

The tissues of all the dogs were examined microscopically, but no significant changes were found in the following organs: heart, lungs, spleen, pancreas, kidney, urinary bladder, striated muscle, gonads, stomach, small and large intestines, adrenal and thyroid glands, and bone marrow. Gross examination had revealed moderate enlargement of the mesenteric lymph nodes of control dog D-725 and dog D-722 fed 3.0 Gm./Kg., but microscopically these nodes were very similar in structure to those taken from the other dogs.

The liver of each of the dogs fed the silicone revealed a deposit of a brownish black opaque pigment which was not observed in the control animals. Various histochemical tests demonstrated that this pigment was bile. It contained no iron. The quantities deposited in the Kupffer and hepatic cells were in direct relation to the daily doses of the antifoaming agent. In the hepatic cells the material appeared as fine, generally discrete granules. In dogs D-722 and D-927 (fed 3.0 Gm./Kg.), the pigment was also found in the interlobular bile ducts. The material appeared in the bile canaliculi, between adjacent rows of liver cells, as a dark brown opaque pigment which distended and assumed the form of the bile capillaries.