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Tissue Cytochrome *c* and Prevention of Experimental Atherosclerosis

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It has been shown that the protective action of iodides on the experimental atherosclerosis induced in rabbits by cholesterol-rich diets is exerted through the thyroid, since iodides are not effective in the absence of the gland (*1, 2*) or when given simultaneously with thiourea (*2*).

Drabkin (*3*) has pointed out that there is a clear positive correlation between the thyroid activity and the content of cytochrome *c* in the tissues. Consequently it seemed important to investigate whether changes will occur in the cytochrome *c* content of tissues of rabbits on a cholesterol-rich diet with potassium iodide, in the presence and in the absence of thyroid gland.

Rabbits on a cholesterol-rich diet (nearly 0.5 g cholesterol, in the form of cattle spinal cord, daily) and with constriction of the upper abdominal aorta inducing hypertension, which acts synergistically with diet in producing atherosclerosis (*4*), were divided into 4 groups: one control, another with thyroidectomy, and two on protective doses of potassium iodide (0.3 g orally every other day), one of them thyroidectomized. The animals were sacrificed 120 days after starting the diet. The development of atherosclerosis was judged macroscopically and evaluated on a scale of 0 to 10 (*4*). The cytochrome *c* of liver and kidney was extracted by the method of Potter and Du Bois (*5*) and determined spectrophotometrically according to Rosenthal and Drabkin (*6*).

The results on liver cytochrome *c* are given in Fig. 1. The changes in kidney cytochrome *c* were similar to those in the liver.

The correlation coefficient between liver cytochrome *c* and development of atherosclerosis is $r = -0.533$, with $t = 2.88$, a value regarded as statistically significant.

These findings confirm, in the rabbit, Drabkin's results in the rat (*3*) of the influence of the thyroid

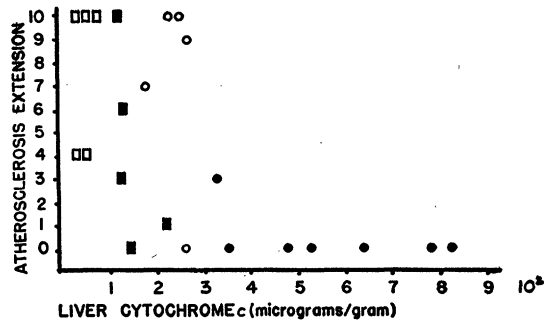

FIG. 1. Relationship between liver cytochrome *c* and degree of atherosclerosis in rabbits on cholesterol-rich diet, sacrificed at 120 days. Squares, thyroidectomized; circles, normal; open squares and circles, animals without treatment; solid squares and circles, animals given potassium iodide.

gland and thyroxine upon the level and content of cytochrome *c* in tissues. It is deduced from the data that the action of iodide may be one of stimulation of the thyroid gland, since the concentration of cellular cytochrome *c* is increased when the drug is administered to animals with thyroid. The results furthermore suggest that the augmentation of cellular cytochrome *c* must be considered as a factor in the prevention of the experimental atherosclerosis by means of potassium iodide.

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A Selective Medium for the Isolation of *Coccidioides immitis*

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Cultural procedures commonly used in attempting isolation of *Coccidioides immitis* from clinical specimens or from the physical environment frequently fail because of overgrowth of the pathogen by saprophytic fungi and bacteria. Laboratory tests indicate that a newly developed medium shows great promise in overcoming this difficulty.

Sabouraud dextrose agar fortified with penicillin (20 units/ml) and streptomycin (40 units/ml) was selected as a basal medium. This combination is inhibitory to most bacteria but does not prevent the growth of fungi, except the actinomycetes.

On the basis of the findings of Leach, Ford, and Whiffen (*1*), Whiffen (*2*), and Phillips and Hanel (*3*), which demonstrated the selective antifungal ac-