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Growth Factor in Faulty Calcification in Experimental Obstructive Jaundice.

WILLIAM C. BUCHBINDER AND RUTH KERN. (Introduced by O. T. Schultz.)

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Puppies subjected to common duct ligation and division, develop, in the state of late obstructive jaundice, a marked osteoporotic condition, in which are revealed roentgenographically cortical thinning, relatively wide medullary spaces, and a lack of film contrast generally. A marked lowering of the blood serum calcium accompanies this process. A slight lowering of the blood calcium first manifests itself after about 30 days of obstructive jaundice. Thereafter it is fairly uniformly progressive until it reaches values of between ⅔ to ½ the normal. Growth of skeletal structures, especially of the long bones, and a substantial increase in body weight occurs in the young animal with obstructive jaundice.

The normal blood calciums that obtain for the adult animal throughout the course of obstructive jaundice, where the same serious digestive disturbances arise, would speak against any defect in the capacity of the intestine to absorb calcium. The maintenance of normal blood serum calcium values in the early stages of jaundice in the puppy may be due to mobilization, *i. e.*, bone lysis. The four intrinsic factors in the production of faulty calcification are thought to be: first, small calcium storage; second, the presence of a disturbed metabolic condition unfavorable to osteogenesis; third, an intestinal factor characterized by the absence of some catalytic agent in bile; and lastly, new bone production which exceeds the rapidity with which lime salts are deposited.

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