observation constitutes apparently the first example of biological bromination in a vertebrate.

Aided by a grant from the New York Heart Association.

Hepatic Excretion of Inulin in the Dogfish, Squalus acanthias

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For flat and falling plasma levels of inulin over 540-260 mg./l. ranges, with bile flows of 0.26-0.64 ml./hr. following sodium dehydrocholate injections, in experiments up to 37 hrs. in length, with female dogfish 4.5-7.5 kg., bile-plasma ratios were 0.6-0.21 most frequently around 0.1 Correcting the plasma and bile concentrations to concentration of inulin per 1000 g. water, does not alter greatly the ratios. The above ratios should be considered as for order of magnitude only. Imperfections in chemistry, lack of assurance of a uniform flow of bile and other factors prevented a thoroughly definitive quantitation. The data do show that inulin is in the dogfish, not a suitable base-line substance for the study of hepatic function, and that in the formation of the bile, inulin does not move equally with water.

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Hepatic Metabolism of Some Dyes by the Dogfish, Squalus acanthias

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Exploratory paper chromatography of dogfish bile following the subcutaneous or intramuscular injection of some dyes showed that these dyes appeared in the bile in part in altered form. The solvent was 4 butanol: 1 acetic acid: 1 water. Initially homogeneous phenol red appeared in part as two yellow substances with no indicator properties, and with lower Rfs than the parent substance. One of these yellow substances was recovered in the urine. These alterations and those below did not appear with the stock dye, bile alone, bile incubated with the dye or blood incubated with the dye. Chlorphenol red which was not pure also gave two yellow non-indicator patterns in the bile, and bromphenol blue one. Sulfobromophthalein (BSP) resulted in two additional substances with the same color as the parent substance. While the conversion of BSP is known, the conversion of phenol red into non-indicator substances appears to be new. The results indicate that for precise quantitative work it can not be merely assumed that a substance passes through an organ unaltered.

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