

Phylogenetic vision of bile acids Visión filogenética de los ácidos biliares.

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Bile acids are the most important solutes of bile: they are essential in cholesterol degradation, solubilization and excretion; they are determinants of bile flow and secretion; and their role is crucial in the intestinal absorption of lipids and lipid soluble vitamins. In amphibia and in cartilaginous fish, the 27C cholestane molecule is hydroxylated to alcohols. In birds, the terminal 27C-OH group is oxydated to cholestanic acids. In vertebrates of a more recent evolutionary origin, the lateral chain is shortened to 24C and oxydated to cholestanic acids. Further transformations include chemical changes in the cholestane skeleton and in the lateral chain (hydroxylations, dehydroxylations, epimerization, etc). In the intestinal lumen, the saprophytic flora provides enzymes catalysing new changes that originate "secondary" bile acids. During entero-hepatic circulation, another variety of bile acids appear, commonly termed "tertiary" bile acids. A recent study of Lee R Hagey characteri