

Fatty acid oxidation catalized by cytochrome P450 and peroxisomes in kidney of rats in different metabolic states. A comparative study between liver and kidney

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The kidney response to exogenous inducers is known to be different to the liver, but its response to endogenous factors is poorly known. The  $\alpha$ -oxidation of palmitoil CoA catalized by the peroxisomes and the lauric acid  $\omega$ -hydroxylation catalized by cytochrome P450 were studied in kidney of rats with chronic alcoholism, cholestasis (7 days of bile duct ligation) and 48 hrs starvation. In all models used, the renal turnover rate of microsomal lauric acid metabolism was higher than the hepatic one and the renal peroxisomal  $\alpha$ -oxidation of fatty acid was lower than the liver one. The starvation and the ethanol treatment increased the kidney microsomal and peroxisomal oxidation of fatty acids. In both models, the kidney responded in a similar way to the liver. Only in cholestasis the kidney responded in a different way to liver: While in the kidney the cholestasis did not modulate these activities, in the liver the cholestasis decreased the microsomal and peroxisomal activities.

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