

Profiles of bile acids and progesterone metabolites in the urine and serum of women with intrahepatic cholestasis of pregnancy

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Background/Aims and Methods: The etiology of intrahepatic cholestasis of pregnancy (ICP) is unknown. We have performed comprehensive chromatographic and mass spectrometric analyses of progesterone metabolites and bile acids in serum and urine of six patients in order to characterize changes that might be of importance for the development of the disease. **Results:** Conjugated bile acids were increased in serum and urine of patients with ICP while the levels of unconjugated bile acids were similar in healthy pregnancies and ICP. Unconjugated and conjugated 7 α ,12 α -dihydroxy-3-oxo-4-cholenoic acid was excreted in urine both in healthy pregnancies and in ICP, possibly indicating a rate limitation of 3-oxo- Δ^4 -steroid 5 α -reductase in pregnancy. The serum levels and urinary excretion of total sulfated progesterone metabolites were increased in ICP while the glucuronides were unchanged or low. Confirming previous results, the fraction of metabolites with 3 α -hydroxy-5 α (H) configuration was increas