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제 목	ALTERATION OF HEPATIC 3'-PHOSPHOADENOSINE 5'-PHOSPHOSULFATE(PAPS) AND SULFATE IN ICR MICE BY XENOBIOTICS THAT ARE SULFATED.
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Phenol, acetaminophen(AA) and salicylamide are all known to be sulfated in rats and mice. We have previously demonstrated that capacity-limited sulfation of xenobiotics in rats is due to the reduced availability of hepatic PAPS, the co-substrate for sulfation, which in turn is limited by the availability of its precursor, inorganic sulfate. Because species differences have been reported in the extent of sulfation, this study was conducted to determine whether these xenobiotics lower hepatic PAPS and sulfate in ICR mice. All three substrates decreased serum sulfate concentrations in a dose-and time-dependent manner. However, contrary to the observations in rats, phenol markedly increased hepatic PAPS concentraions in a dose-dependent manner, 1 hr after *ip* injection of 0-4 mmol/kg. Following *ip* injection of 2 or 4 mmol/kg phenol, hepatic PAPS concentraions were enhanced 2-3 fold, 0.5-2 hr after dosing and returned to control values 3 hr after dosing, whereas AA and salicylamide had little effect on hepatic PAPS concentrations. In summary, these studies demonstrate that phenol markedly enhances hepatic PAPS concentrations in mice, whereas hepatic PAPS levels are not affected by AA and salicylamide. Our data suggest that 1) hepatic sulfation for high dosages of xenobiotics in ICR mice is not limited by the availability of co-substrate, and 2) there are significant species differences in the regulation of PAPS between rats and mice.