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Comparison of cytochrome P-450 content and conjugative enzymes in livers of camels (*Camelus dromedarius*), guinea-pigs (*Cavia porcellus*) and rats (*Rattus norvegicus*).

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Abstract

The activities of the conjugative enzymes, glutathione S-transferase and UDP-glucuronyl-transferase, have been measured in vitro in the livers of camels, guinea-pigs and rats. Some sex differences were observed in the levels of these conjugative enzymes. In rats and guinea-pigs, females had higher UDP-glucuronyltransferase activity than males. In camels, females had higher glutathione S-transferase activity than males. In these species, the cytochrome P-450 isozymes observed between the 50,000 and 60,000 mol. wt regions have been separated and characterized by SDS-polyacrylamide gel electrophoresis. Camels showed lower levels of all types of cytochrome P-450 isozymes, while guinea-pigs showed higher levels of most of these isozymes. In general, camels seemed to have the lowest drug-metabolizing enzyme activity when compared to rats and guinea-pigs