Effect of berberine on pharmacokinetics of digoxin after oral administration to rats.

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Source
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Abstract

OBJECTIVE:

To study the effects of berberine (BBR) on the pharmacokinetics of digoxin (DIG) in rats.

METHOD:

Rats were randomly assigned into DIG, low dose-BBR, middle dose-BBR and high dose-BBR group. After singe or a 2-week ig pretreatment with BBR, serum DIG concentration was determined by radioimmunoassay. Pharmacokinetic calculations were performed on each individual set of data using 3P97 practical pharmacokinetic software.

RESULT:

No significant difference was found between the control and 10 mg x kg(-1) BBR combined group. After pretreatment with BBR (30, 100 mg x kg(-1)), the pharmacokinetic parameters of ig DIG were significantly altered. The AUC(0-t) of DIG with BBR increased by 33% and 70% (single), 27% and 75% (2-week), respectively.

CONCLUSION:

BBR increases bioavailability of DIG, which may be related to its inhibition effect on intestinal P-gp.

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