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Note: Performing your original search, ***piperine and curcumin***, in PubMed will retrieve *13* citations.

1: Planta Med. 1998 May;64(4):353-6. Related Articles, Links

Influence of piperine on the pharmacokinetics of curcumin in animals and human volunteers.

Shoba G, Joy D, Joseph T, Majeed M, Rajendran R, Srinivas PS.

Department of Pharmacology, St. John's Medical College, Bangalore, India.

The medicinal properties of curcumin obtained from Curcuma longa L. cannot be utilised because of poor bioavailability due to its rapid metabolism in the liver and intestinal wall. In this study, the effect of combining piperine, a known inhibitor of hepatic and intestinal glucuronidation, was evaluated on the bioavailability of curcumin in rats and healthy human volunteers. When curcumin was given alone, in the dose 2 g/kg to rats, moderate serum concentrations were achieved over a period of 4 h. Concomitant administration of piperine 20 mg/kg increased the serum concentration of curcumin for a short period of 1-2 h post drug. Time to maximum was significantly increased ($P < 0.02$) while elimination half life and clearance significantly decreased ($P < 0.02$), and the bioavailability was increased by 154%. On the other hand in humans after a dose of 2 g curcumin alone, serum levels were either undetectable or very low. Concomitant administration of piperine 20 mg produced much higher concentrations from 0.25 to 1 h post drug ($P < 0.01$ at 0.25 and 0.5 h; $P < 0.001$ at 1 h), the increase in bioavailability was 2000%. The study shows that in the dosages used, piperine enhances the serum concentration, extent of absorption and bioavailability of curcumin in both rats and humans with no adverse effects.

Publication Types:
- Clinical Trial

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