Poster

[P27-4] P27-4: Cardiovascular drugs (1)

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[P27-4-2] Green tea extract and (-)-epigallocatechin-3-gallate greatly affect pharmacokinetic of rosuvastatin in rats

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Background

This study aimed to evaluate the effects of green tea on the pharmacokinetics of rosuvastatin, which is reported to be hydrophilic and not metabolized by cytochrome P450 enzymes.

Methods

Male Sprague-Dawley rats received green tea extract (GTE) (100, 200 mg/kg), (−)-epigallocatechin-3-gallate（ EGCG, 4.8mg/kg, equivalent to 200 mg/kg of GTE） or physiological saline, as the control, by intragastric (ig) co-administration with rosuvastatin. The plasma concentrations of rosuvastatin and catechins in the rats were determined by ultra performance liquid chromatography-tandem mass spectrometry.

Results

Comparing with the control group, the area under the plasma concentration–time curve (AUC0-∞) of rosuvastatin in two groups of GTE increased by 58.47 % and 85.78% ($p<0.05$), respectively; meanwhile EGCG increased it by 64.26% ($p<0.05$).

Conclusions

These results suggested that GTE might significantly increase the exposure of rosuvastatin, and maybe in GTE , EGCG played a major role .