THE HERBAL PREPARATION WU-CHU-YU-TANG ENHANCES THE EXCRETION OF THE CYP1A2 SUBSTRATE CAFFEINE IN MICE

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O

in vivo

Key words

INTRODUCTION

rutaecarpa *Zingiber officinale* *Panax ginseng*

Ziziphus jujuba

O

O

in vivo

MATERIALS AND METHODS

Compound Medicine and Chemicals

Animal Treatment and Enzyme Assays

± °

ad libitum

°

O

et al

et al

Blood Caffeine Concentration Determination

μ

°

×

× ∞

∞

Statistical Analysis

RESULTS AND DISCUSSION

O

ex vivo

in vivo

± μ

Table 1. Effects of Wu-chu-yu-tang on liver microsomal cytochrome P450 content and catalytic activities in mice

	±	±
	±	±
O	±	±
	±	±

±

p

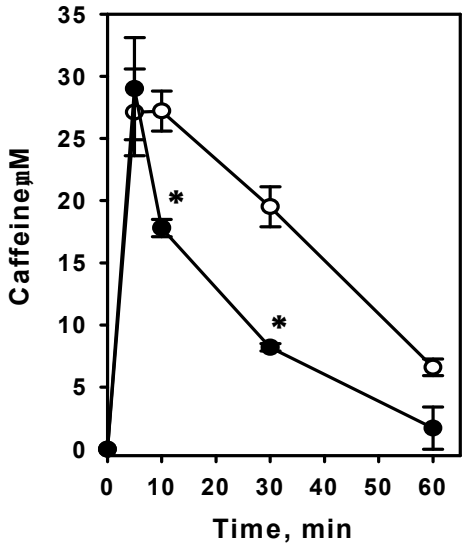

Fig. 1. Effects of pre-treatment with Wu-chu-yu-tang-tang on whole blood caffeine concentrations. C57BL/6J mice were pre-treated with water (m) or Wu-chu-yu-tang (l) as described in MATERIALS AND METHODS. Twenty-four hours after the last treatment, mice were treated with caffeine (2 mg/kg) intraperitoneally and 20 mL blood samples were drawn suborbitally. Whole blood caffeine concentrations were analyzed by HPLC. Results represent mean ± SEM of three mice. ∗Asterisks represent values significantly different from the respective control value, $p < 0.05$.

± μ

± ± ± μ

± ± ± μ

Table 2. Pharmacokinetic parameters of caffeine excretion in control and Wu-chu-yu-tang-treated mice

		±	±
$\rightarrow\infty$	·	±	±
		±	±

±

p

ex vivo

in vivo

ACKNOWLEDGEMENT

REFERENCES

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吳茱萸湯促進鼷鼠對細胞色素 P450 1A2 受質—咖啡因之排除

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吳茱萸湯在傳統中藥配方中被用於治療偏頭痛及感冒。為了解吳茱萸湯對排除一細胞色素　之受質 咖啡因之影響, 將鼷鼠以餵管餵食吳茱萸湯（ 克 公斤 天）, 連續處理　天。吳茱萸湯使鼠肝微粒體　　*O*　　及　　活性分別增加　及　　。在最後一次餵食吳茱萸湯後　小時後, 以腹腔注射處理　毫克 公斤咖啡因, 分析血中咖啡因濃度顯示吳茱萸湯使咖啡因之半衰期及　　（曲線下面積）分別降低　　及　　, 清除率增加　　。這些結果顯示在臨床應用時, 應注意吳茱萸湯與細胞色素　　之受質間的可能交互作用。

關鍵詞：吳茱萸湯, 咖啡因, 交互作用。

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