

The role of cytochrome P450 in herb-drug interactions.

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Abstract

Modulation of cytochrome P450 (P450) plays a primary role in drug interactions. Polymorphic P450 regulation and expression and environmental exposure are the main causes of variability in human response to xenobiotic modulatory effects. Herbal medicines have been widely used worldwide for centuries. These days, physicians and pharmacists are very concerned about the herb-drug interactions. Herbal medicines such as St. John's wort and Evodiae Fructus have the ability to affect P450 expression and may have the potential to interfere with drug metabolism. This article briefly reviews recent reports on the in vitro and in vivo effects of natural products on human P450 enzymes and human variability in the modulatory response. A better understanding of interactions of herbs with P450 will help the regulation of the use of herbs as drugs and food supplements.