Annals of Pharmacology and Pharmaceutics

Letter to Editor
Published: 24 Nov, 2017

Analysis of Interaction between Food and Medicine using Cocktail Substrate Test

*Yasuhide Hibino**

Department of Pharmaceutical Sciences, Josai University, Japan

Letter to Editor

In Japan, the functional display food system started in April 2015 to accelerate self-medication based on consumer's own choice on the understanding that consumers should have "opportunities to voluntarily and rationally select products." In this system, to clarify safety procedures to be carried out by business operators, it is mandatory to evaluate the interaction of functional ingredients by using secondary information from the database. In this paper, the Cocktail Substrate Test Method is presented as a method of evaluating interactions in drug development, using the examples of interactions with cytochrome P450 (CYP), which tends to be problematic, and the case where objective information is not listed in the interaction database. As described in the guidelines, drug interactions are evaluated using *in vitro* tests and animals, but eventually evaluation by clinical drug interaction studies for humans is essential. However, conducting clinical trials individually for several kinds of enzymes and transporters are not realistic because of the burden (including safety, temporal restraint, blood collection amount, blood collection number, side effects, etc.) on the subject. The test method of *Bosilkovska et al [1]*. is a cocktail substrate test method using the Dried Blood Spot (DBS) method, and contains a substrate drug of P-gp which is a CYP or a drug excretion transporter. Using a trace amount of peripheral blood by the DBS method, this quick and simple test method can be used to evaluate interactions based on pharmacokinetics when a "cocktail drug" is administered to a subject.

References

1. Bosilkovska M, Samer CF, Déglon J, Rebsamen M, Staub C, Dayer P, et al. "Geneva cocktail for cytochrome P450 and P-glycoprotein activity assessment using dried blood spots." ClinPharmacolTher. 2014;**96** :349-59.

OPEN ACCESS

Correspondence:
Yasuhide Hibino, Department of Pharmaceutical Sciences, Josai University, Japan, Tel: +81-49-271-7285; Fax: +81-49-271-7284; E-mail: seitaib@josai.ac.jp

Received Date: *22 Aug 2017*
Accepted Date: *10 Oct 2017*
Published Date: *24 Nov 2017*

Citation:
Hibino Y. Analysis of Interaction of between Food and Medicine using Cocktail Substrate Test. Ann Pharmacol Pharm. 2017; 2(12): 1121.