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Information about some interactions food-drug

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Establishment of experimental model to determine pharmacokinetic interaction between drug 2-(2,6-dichloranilino) phenylacetic acid (diclofenac) and food was done by adapting protocols mentioned in literature, experimental and practical conditions of work. This drug is a non-steroidal anti-inflammatory drug (NSAID) which bears chemical structure bearing a carboxylic acid moiety. 2-(2,6-dichloranilino) phenylacetic acid metabolism in humans occurs by acyl glucuronidation and phenyl hydroxylation. This hydroxylation may have clinical significance in defining principal route of metabolism and elimination of drug in humans. Therapeutic use of 2-(2,6-dichloranilino) phenylacetic acid is commonly associated with hepatotoxicity, which is characterized by delayed onset of symptoms and lack of a clear dose-response relationship. Under these conditions, toxicity of this drug was classified as metabolic idiosyncrasy; acyl glucuronide product was confirmed as reactive and able to modify cellular proteins by covalent attachment of proteins. One of the modified proteins was identified as dipeptidyl peptidase-IV (DPP-IV) inhibitors. The formation of protein adducts was evidenced from oxidative metabolism of compounds. After administration is rapid and complete absorption of drug, is extensively bound to plasma albumin. The area under plasma concentration-time curve is proportional to dose of drug. Substantial concentrations of drug are achieved in synovial fluid. Concentration-effect relationships were established for total drug-bound, unbound and synovial fluid concentrations. This drug is eliminated following biotransformation to metabolites sulphate, which is excreted; a very small amount of unchanged drug is eliminated.

Biography

Monica Butnariu received her BS in chemistry from the West University, Timisoara. She did her PhD in sciences thesis "Researches on the heavy metals content in the Banat's soils and the consequences on the environment" from Banat's University. She coordinated in the quality of director, national and international projects, and participated as principal investigator of the research team in some national and one international project. She has published more than 30 papers in reputed journals from Thomson Reuters (formerly ISI) Web of Knowledge indexed Journals, 5 patents, chapters publishing in books from prestigious publishing house and has been serving as an editorial board member of reputed journals. To facilitate transfer of knowledge results of activity research in the socio-economic, she attended most of international salons Innovation, Research and New Technologies, of Brussels (Belgium), Zagreb (Croatia) Geneva (Switzerland) in 2006-2011, in 2008 received a diploma with gold medal KIWIE 2008-Korea International Women's Invention Exposition, Seoul (Korea).

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