

# The Effect of pomegranate and liquorice on pharmacokinetics parameters of theophylline in rat plasma by using HPLC technique



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## Biography

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## Abstract

Food or drinks may significantly alter the pharmacokinetics and pharmacodynamics of drugs which may lead to adverse events. A drug such as theophylline is widely used to treat asthma and chronic obstructive pulmonary disease. Pomegranate and liquorice have been identified to help in cough management. However, the interactions of the later with theophylline pharmacokinetics were not studied. Therefore, we aimed to study the impact of pomegranate and liquorice on theophylline pharmacokinetics in rats. An HPLC method of analysis was developed and partially validated successfully according to the European Medical Agency Guideline to measure theophylline in rat plasma. Pomegranate and liquorice juices were given to rats for two days and half an hour before theophylline (5 mg/kg) was orally administered as solution. Blood samples, then, were collected at scheduled time intervals, processed and analysed using the validated reliable HPLC method. Plasma profile of theophylline was obtained and pharmacokinetic parameters (C-max, T-max and Area under the curve (AUC)), were calculated for each group. Values of the pharmacokinetic parameters were compared statistically using ANOVA, t-test with corresponding control values on 95% confidence interval. It was found that consumption of pomegranate or liquorice juice prior oral administration of theophylline did not result in significant pharmacokinetic interaction.

## Publications

Nitrate selective electrode based on the trinuclear chromium (III) bivalent

Synthesis and structure of a new heteropolytungstate with central vanadium (IV) atom

Thiocyanate ion-selective PVC membrane electrode

Crystal structure of trimethylsulfoxonium phthalimide, [C<sub>3</sub>H<sub>9</sub>SO][C<sub>8</sub>H<sub>4</sub>NO<sub>2</sub>]

Simultaneous High performance liquid chromatographic analysis of Oxicams in pharmaceutical formulations.

International Conference and Expo on Proteomics, Genomics and Molecular Medicine Heart conference  
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