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The purposes of this study were to assess the pharmacokinetics of aceclofenac in Korean using a population approach and to investigate the influence of characteristics of subjects such as body weight and age on that of aceclofenac. Plasma data from 156 Korean healthy male subjects who participated in several different bioequivalence studies of aceclofenac 100 ㎎ were used for this analysis. Plasma aceclofenac concentrations were measured using HPLC with UV detector. A 2-compartment model with lag time was fitted to the aceclofenac data using NONMEM. In result, population mean Cl/F, V_c/F, K_a, V_p/F, Q/F and T_{lag} were 4.37×10^3 ㎖/hr, 3.95×10^3 ㎖, 0.99 hr^{-1}, 9.60×10^3 ㎖, 1.02×10^3 ㎖/hr and 0.39 hr, respectively. Intersubject coefficient of variation (CV) ranged from 0.06 to 74.90% and residual intrasubject CV was 40.50%. A 2-compartment model with lag time was fitted well to the aceclofenac data, and there were no influence of age or body weight on fitting.

[PE2-2] [10/19/2001 (Fri) 09:00 - 12:00 / Hall D]

Validation of a high-performance liquid chromatographic method for the determination of YH3945 in rat plasma

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YH3945, a non-peptide farnesyltransferase inhibitor, is being developed by Yuhan Research Institute for the treatment of cancer. A sensitive and specific assay based on high perfomance liquid chromatography (HPLC) has been developed and validated for the determination of YH3945 in rat plasma. Plasma was extracted with acetonitrile containing the internal standard. An aliquot of the extract was injected onto a reverse C18 column. Retention times of YH3945 and the internal standard were 6.25 and 9.94 min, respectively. The chromatograms showed no endogenous peaks from blank plasma at the retention time of YH3945. Standard curves of YH3945 was linear over the range of 50 ng/ml to 5000 ng/ml (r=0.9998). The lower limit of quantification was 50 ng/ml using 100 ul plasma. This assay also showed good inter- and intra-precision and accuracy throughout the concentration range. YH3945 was stable for 72 hours in the sample extract, for 4 hours in ambient condition, for up to 14 days at frozen condition, and after exposure to three freeze/thaw cycles. This sensitive, accurate and precise method can be applied to determine concentration of YH3945 in plasma for pharmacokinetic studies in rats.

[PE2-3] [10/19/2001 (Fri) 09:00 - 12:00 / Hall D]

Population pharmacokinetics of clarithromycin in healthy adult Korean

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The purpose of this study is to estimate the population pharmacokinetics of clarithromycin in healthy adult Korean and to investigate the influence of various factors on the pharmacokinetics of clarithromycin.
The population pharmacokinetic parameters of clarithromycin were calculated with the data from the bioequivalance test. A total of 798 plasma concentrations from 78 subjects with single oral dose of 250mg or 500mg were used for the modeling. The concentration-time data were fitted to one-compartment open model with first-order absorption and elimination with no lag time using WinNonlin.