P-85

ENANTIOSELECTIVE DISPOSITION OF LANSOPRAZOLE IN EXTENSIVE AND POOR METABOLIZERS OF CYP2C19.

Kyung-Ah Kim, Ji-Hong Shon, Ji-Young Park, Doo-Hee Yun, and Jae-Gook Shin

Department of Pharmacology, Inje University College of Medicine, 633-165, Gaegum-dong, Pusanjin-gu, Pusan 614-735, Korea
E-mail: phshinjg@ijnc.inje.ac.kr

The effect of CYP2C19 genetic polymorphism on the disposition of lansoprazole enantiomers was determined in order to evaluate the contribution of CYP2C19 in the stereoselective metabolism of lansoprazole. After single oral dose of 30mg lansoprazole racemate in 6 subjects with CYP2C19 PM genotype and 6 with EM genotype, the plasma concentrations of R-enantiomers were consistently higher than those of *S*-enantiomer in both EM and PM subjects. In the EM and PM subjects, the mean clearances (Cl/F) of R-lansoprazole were 5-fold and 8.4-fold less than those of *S*-enantiomer, and the mean volume of distribution (Vd/F) was 3.5-fold and 13.3-fold less than those of *R*-enantiomer, respectively. The mean R/S ratios for C_{max}, AUC, Cl/F and Vd/F in EM subjects 12.1, 8.6, 0.15, and 0.10 were compared to those in PM subjects 2.8, 5.7, 0.19 and 0.29, respectively. These results suggest that CYP2C19 genetic polymorphism influence on the enantioselective disposition of lansoprazole. In addition to the stereoselective metabolism, stereoselective distribution of lansoprazole is expected to be involved in the disposition of lansoprazole enantiomers