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Prediction of *In Vivo* Drug-Drug Interaction between Medroxyprogesterone Acetate (MPA) and Zidovudine (AZT)

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***SUMMARY*. Clinical drug-drug interaction between medroxyprogesterone acetate (MPA) and zidovudine (AZT) was extrapolated in the present study. The *in vitro* inhibition potential of MPA towards human liver microsomes (HLMs)-catalyzed AZT glucuronidation was evaluated. Inhibition kinetic type was determined, and the inhibition kinetic parameter (Ki) was calculated. Data fitting using Dixon plot and Lineweaver-Burk plot showed that MPA exhibited competitive inhibition towards (HLMs)-catalyzed AZT glucuronidation. The second plot with slopes obtained from Lineweaver-Burk plot *versus* MPA concentrations was employed to calculate the Ki value to be 13.8 μM. Using accumulated concentration in the liver, the area under the curve (AUC) of plasma concentration was calculated to increase by 16 %, indicating the possibility of MPA-AZT interaction.**

KEY WORDS: In vitro-in vivo extrapolation (IV-IVE), Medroxyprogesterone acetate (MPA), Zidovudine (AZT).

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