

[P-5]**COX-INHIBITORS DOWN-REGULATE Cyp1a1 ACTIVITY IN C57BL/6 MOUSE AND Hepa I CELLS.**

Syrie Bang, JaYoung Kim, YhunYhong Sheen

College of Pharmacy, Ewha Womens University

In order to understand the mechanism of action of TCDD, we have examined the effect of COX-inhibitors on Cyp1a1 activity. We observed the effect of COX-inhibitor on EROD activity in C57BL/6 mouse *in vivo*. And we also evaluated the effect of COX-inhibitors on mouse cyp1a1 promoter activity in Hepa cell. There have been known two isoforms of COX enzyme. COX-1 is known as the housekeeping enzyme and COX-2 is inducible by inflammatory stimuli. NSAID such as aspirin and celecoxib, seems to inhibit reversibly COX. Aspirin is a non-selective COX inhibitor and celecoxib is a COX-2 specific inhibitor. When COX-inhibitor such as Aspirin and Celecoxib were pretreated with TCDD *in vivo*, the EROD activity that was stimulated by TCDD was inhibited. And Pretreatment of aspirin and celecoxib *in vitro*, inhibited the TCDD stimulated Luciferase activity. For the action of COX inhibitors such as aspirin and celecoxib on the Cyp1a1, it seems to be important to do pretreatment of these chemicals before TCDD. In this study, thus, we have suggested that COX-inhibitors such as aspirin and celecoxib, decrease the TCDD induced Cyp1a1.

keyword : COX , Cyp1a1