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COX-inhibitors down-regulate TCDD-induced cyplal activity

in C57BL/6 mouse and Hepa-I cells.

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In order to understand the mechanism of action of TCDD, we have examined

the effect of COX-inhibitors on cyplal activity. We observed the effect of

COX-inhibitor on EROD activity in C57BL/6 mouse in vovo. And we also

evaluated the effect of COX-inhibitors on cypla1 mRNA, mouse cypla1

promoter activity and EROD activity in Hepa cell.

When Aspirin were pretreated with 3MC in vivo, the EROD activity that was

stimulated by 3MC was inhibited. And Pretreatment of Aspirin, Celecoxib,

Nimesulide and other several Cox-inhibitors in vitro, inhibited the TCDD

stimulated EROD activity and Luciferase acitivity. In case of cypla1 mRNA

level, Nimesulide and SB100 were able to decrease cypla1 mRNA that was

stimulated by TCDD, but other tested COX-inhibitors were not decrease. We

don't know this different result exactly.

For the action of Cox-inhibitors on the Cyplal, it seems to be important to do

pretreatment of these chemicals as apposed to TCDD. In this study, thus, we

have suggested that COX-inhibitors such as aspirin, celecoxib, Nimesulide and

other several Cox-inhibitors decrease the TCDD induced Cyplal.

[Keywords: cyplal, cox-inhibitor]

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