P20 The hypoxia regulation on CYP4501A1 expression

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The aim of this study was to find out the effect of hypoxic condition on the regulation of *cyp1a1* gene expression. p*cyp1a1*-Luc construct was cloned and transfected into Hepa I cells. When Hepa-I cells containing p*cyp1a1*-Luc were treated by DFO (desferrioxamine) which is iron-chelating agent, the stimulatory effect of luciferase by TCDD was decreased. This inhibitory effect of desferrioxamine on the luciferase activity was dose dependent and abolished by concomitant treatment with N^G-nitro-*l*-arginine. And when cobalt chloride which is known as a hypoxia inducing chemical was administrated, the stimulatory effect of luciferase by TCDD was also decreased. This inhibitory effect of cobalt chloride on the luciferase activity was dose dependent and abolished by concomitant treatment with N^G-nitro-*l*-arginine. These data showed that hypoxic condition downregulates *cyp1a1* gene expression and this might be through nitric oxide action.