

種々の薬剤性肝障害モデルにおける α_1 -Acid glycoprotein (AGP) 産生

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Plasma α_1 -Acid Glycoprotein Concentration in Rats with Chemical Liver Injury

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Abstract The influence of liver injury on the plasma concentrations of α_1 -acid glycoprotein (AGP) and albumin was examined in several models of chemically-induced liver injury. The plasma AGP concentration in carbon tetrachloride (CCl_4), allyl alcohol, acetaminophen or *N*-nitrosodimethylamine-induced liver injury was increased to 2-3.5 times the normal level at 24h after the intoxication. The plasma AGP concentration was unchanged in ethionine-induced liver injury and was markedly decreased in galactosamine-induced injury. The plasma albumin concentration was significantly decreased by the damage due to galactosamine, allyl alcohol or *N*-nitrosodimethylamine-induced liver injury, while no influence by other hepatotoxin-induced liver injury.

The plasma protein binding of propranolol was also determined in relation to the plasma concentrations of AGP and albumin in all the experimental models. Propranolol binding, expressed as bound to free ratio, showed a good correlation with the AGP Concentration ($r=0.940$; $p<0.001$), but not with the albumin concentration.

7種の肝障害惹起薬物をラットに投与し、種々の薬物性肝障害モデルを作成した。肝障害モデルは、血漿中蛋白質濃度の変動の相違から4種類のcategoryに分類された。種々の肝障害モデルにおいて、propranololの結漿蛋白質結合性は、 α_1 -acid glycoprotein濃度との間に相関関係 $r=0.940$ の高い相関性を示したが、albumin濃

度との間には相関性を示さなかった。従って、種々の薬物性肝障害モデルにおいては、弱塩基性薬物の血漿蛋白質結合率は、血漿中 α_1 -acid glycoprotein濃度の変化から予測されることが判明した。

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