

[P3-28]**Effects of Glycoprotein Fractionated from *Acanthopanax senticosus* on Antioxidative Activity and Alcohol Metabolism in Ethanol-Induced Hepatotoxicity.**

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The protective effects of a glycoprotein(GF-AS) isolated from *Acanthopanax senticosus* on alcohol-induced hepatotoxicity, antioxidant metabolism and alcohol metabolism were studied. In chronically ethanol-induced liver injury, male SD rats were randomly divided into 7 groups, then received ethanol(4g/Kg BW) and GF-AS for 1 month. Each group was shown as followed ; Normal and GF-AS-free, normal and medium GF-AS(0.5mg/Kg BW), Normal and high GF-AS(1.0mg/Kg BW), ethanol and GF-AS-free, ethanol plus low GF-AS(0.2mg/Kg BW), ethanol plus medium GF-AS(0.5mg/Kg BW) and ethanol plus high GF-AS(1.0mg/Kg BW). In acute alcohol-induced liver injury, male ICR mice were randomly divided into 4 groups, then received ethanol(4g/Kg BW) and GF-AS for 1 days; ethanol plus GF-AS-free, ethanol plus low GF-AS(0.5mg/Kg BW), ethanol plus medium GF-AS(1.0mg/Kg BW) and ethanol plus high GF-AS(2.5mg/Kg BW). In acute experiment, GF-AS decreased plasma ethanol level, significantly decreased at 2.5mg of GF-AS. Although MEOS and ADH were significantly increased by 1.0mg of GF-AS and 0.5mg of GF-AS respectively, no consistent changes were observed in a dose dependent. In contrast, ALDH activity was increased in a dose dependent and significantly increased by 2.5mg of GF-AS. GF-AS also significantly reduced the alcohol-induced increase of plasma GOT, GPT, albumin, TG and Chol at 1.0mg and 2.5mg of GF-AS. In chronic experiment, the plasma levels of GOT, GPT, LDH and bilirubin were also decreased by GF-AS. Histopathologically alcohol induced focal minimal fatty change, mild perivenular microvesicles formation, perivenular sinusoidal dilation and focal parenchymal hemorrhagic necrosis, but these lesions were reduced by supplement of GF-AS, which was in good agreement with the results of serum hepatotoxicity indices. GF-AS increased the activities of SOD, catalase, GSH and DPPH scavenger. Accordingly, GF-AS may contribute to alleviating the adverse effect of ethanol ingestion by enhancing the ethanol metabolism and antioxidant defense system.