Acetaminophen (APAP)-Induced Liver Injury in Zebrafish

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Histological Features Using Quantitative Morphometric Digital Image Analysis Can Predict HepG2 and Help in Sub-Classification of Cirrhosis


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AGA Abstracts

0.338 ±0.021 in the severe cases. No mild cases had a ratio exceeding 0.1. 1H-MRS ratio of the total biopsy area, and number of nodules per mm2 (NN) of the liver biopsy. Using non-parametric statistics, HVPG and CSHP were correlated to each parameter, along with the appropriate use of multivariable models Result: HVPG correlated significantly with FA (Pearson’s correlation = 0.73, CI 0.56-0.84) and NN (correlation = 0.68, CI 0.48-0.80). On stepwise linear regression, only FA and NN independently correlated with HVPG (correlation = 0.77, p<0.005). On univariate logistic analysis, histopathological sub-classification of cirrhosis was different severity stages based mostly on fibrosis area.

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“Response” is defined as: HVPG post-dose at day 6 of ≥12 mm Hg. HVPG increase by ≥12 mmHg, or/and ≥20% in the acute setting (day 0 or/and 6) or by ≥20% to ≥20% in the chronic setting (day 0 post-dose compared to day 0 pre-dose). RESULTS: 30 patients qualified for per protocol analysis. Data from the one week OD setting are shown in Table 1. The doses of 12.5 to 50 mg/day had minor only effects. In 4 of 5 patients treated with 50 mg/day and 7 of 10 patients treated with 100 mg/day HVPG was lower by 20% or to ≤20% in the one week OD setting (day 6 post-dose compared to day 0 pre-dose). RESULTS: 30 patients qualified for per protocol analysis. Data for the one week OD setting are shown in Table 1. The doses of 12.5 to 50 mg/day had only minor effects. In 4 of 5 patients treated with 50 mg/day and 7 of 10 patients treated with 100 mg/day HVPG was lower by 20% on day 0 and on day 6 for the different dose levels. In the 10 patients who were treated with 100 mg/day the mean decrease was significant on day 0 (p=0.012) and on day 6 (p=0.045). On day 6 the response to udenafil was consistently lower than on day 0. There were no cardiovascular side effects due to the drug in any of the groups. Standard liver biochemical tests did not change during the study. CONCLUSION: The new PDE-5 inhibitor udenafil lowers HVPG in the acute setting in a dose-dependent manner without relevant cardiovascular side effects. 75 mg or 100 mg/day seem to be suitable doses, and will be investigated in further clinical studies.

Change of HVPG in one week OD setting

0.338 ±0.021 in the severe cases. No mild cases had a ratio exceeding 0.1. 1H-MRS ratio showed significant correlations of 1H-MRS ratio with γ-GTP, TG, AST, and ALT (P<0.01). An examination was performed on the 1H MRS ratio and 3D-US H2S histogram ratio. There tended to be a significant correlation between them with a correlation coefficient of r = 0.653 (r = 0.653, P<0.015). There was a significant correlation between 1H-MRS ratio and H/K histogram ratio with a correlation coefficient of r = 0.635 (r = 0.635, P<0.026). Conclusion: 1H-MRS can be used to quantitatively measure hepatic triglyceride content. 3D-US is useful to detect hepatic steatosis and to select the appropriate use of multivariable models.

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Change of HVPG in one week OD setting