Reviewer’s report

Title: Intrahepatic blood flow assessment by Doppler ultrasonography: relationship among hepatic vein, portal vein, hepatic artery and portal pressure intraoperatively measured in patients with portal hypertension

Version: 2 Date: 21 January 2011

Reviewer: soon koo Baik

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The main conclusion of the study is that hepatic vein (HV) waveform changes in patients with portal hypertension can indicate severity of portal pressure: There are some limitations as following;

1. Accuracy and Reproducibility

: Accurate measurement with being reproducible is the most crucial in the study of Doppler ultrasonography. Authors did not state the intra-and inter-observer variability. Authors should show up the coefficient of variation(calculated by dividing the standard deviation by mean and multiplying by 100) in terms of reproducibility. For instance, to evaluate the intraindividual reproducibility, one must measure the day-to-day variability for at least 5 consecutive days in about 10 subjects. Acceptable coefficient of variation would be approximately 10% in HV and 5% in PVV according to previous study.

2. Why were HV waveforms measured not in right hepatic vein but in middle hepatic vein?

: Most of previous studies for hepatic vein abnormalities showed that HV waveform were measured at right HV because of advantage in terms of accuracy and reproducibility, rather than middle HV. Authors should clarify this point

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests