Author’s response to reviews

Title: Clinical Research on Liver Reserve Function by 13C-Phenylalanine Breath Test in Aged Patients with Chronic Liver Diseases

Authors:

Gan-sheng Zhang (g-szh@163.com)
Zhi-jun BAO (xinyi8681@sina.com)
Jian Zou (zoujian-dj@163.com)
Shu-ming Yin (YSM69@163.com)
Yi-qin Huang (yiqin-huang@163.com)
Hai Huang (huanghai@163.com)
De-kai QIU (dkq-001@163.com)

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Patients of Child C are out of condition and it may not be easy for them to expired air samples over several hours. So we had the low number of Child C cirrhotic patients enrolled in the study. It may have some influence on the results.

Discretionary revisions
1. "(mean±SD)" has been added.
2. It has been corrected.

Minor Essential Revisions
1. 'aged patients with chronic liver diseases' has been added.
2. (based on the Child-Pugh score) has been deleted.
3. According to %$^{13}$C dose h$^{-1}$ curves and %$^{13}$C cumulative excretion curves after oral administration of L-[1-$^{13}$C] Phenylalanine, $^{13}$CO$_{2}$ peaked at 20-30 min and there is maximum distance between curves at the two time points, test sensitivity is the most significant. Moreover the $^{13}$C-%dose/h at 20 min and 30 min combined with the cumulative excretion at 60 min and 120 min correlated with hepatic function tests, serum albumin, hemoglobin, platelet and Child-Pugh score. So we this think values are more important than the other values.
4. Cumulative excretion should combine with the %$^{13}$C dose h$^{-1}$ at 20 min and %$^{13}$C dose h$^{-1}$ at 30 min for application.
5. In patients with liver diseases, Child-Pugh classification still represents the most widely used marker of liver function. This classification, however, does not strictly reflect the quantitative functional hepatic reserve, and measurement there of could be influenced by the subjectivity of some parameters (i.e., degree of ascites or hepatic encephalopathy) and by modifications induced by concomitant treatments (i.e., albumin infusion). Kobayashi et al, who classified CH and LC patients into three groups according to the indocianine green at 15 min, reported that the cumulative excretion and %$^{13}$C dose h$^{-1}$ at 30 min after the isotope administration were useful for the classification. Various previous investigators have also reported significant correlations between the cumulative excretion and parameters reflecting the severity of hepatic diseases, including albumin, PT, HPT, ChE, TC, total bilirubin and Child-Pugh score, in LC patients.
6. References have been added.