中文題目：接受活體肝臟移植的慢性 C 肝炎其肝臟 HCV-RNA 和 HCV 核心抗原之間的差異

英文題目：The discrepancy between hepatic HCV-RNA and HCV core antigen in native liver of chronic hepatitis C recipients who underwent living donor liver transplantation

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Background & Aims:

Serum hepatitis C virus core antigen (HCV Ag) assay has been clinical utility as a feasible alternative to HCV RNA detection in patients before and after treated with DAAs. This study aimed to investigate the hepatic detection of HCV-RNA and HCV Ag assay in the removed native liver of patients with chronic C hepatitis who received living donor liver transplantation (LDLT). We would like to explore the discrepancy between hepatic HCV-RNA and HCV Ag in the liver tissue.

Methods:

Between Feb. 2016 to Aug. 2019, we enrolled 80 serum anti-HCV positive recipients who underwent LDLT. RNA extracted from the native liver tissues was performed one step reverse-transcribed qPCR using the TopScript One Step qRT-PCR Probe Kit with HCV qPCR probe assay and human GAPDH qPCR probe assay on ViiA7 Real-Time PCR System. Hepatic HCV Ag was identified by employing the qualitative enzyme immunoassay technique. All experimental steps were based on the protocol provided by Human Hepatitis C Virus (HCV) Core Antigen ELISA Kit (Cat.No.: MBS167758).

Results:

Among 80 HCV related recipients, 85% (68/80) positive HCV-RNA was significantly higher in the native liver tissues than in the serum before (29/80, 36.3%; p = 0.000) and after LDLT (3/80, 4.4%; p = 0.000). In contrast, hepatic HCV Ag was 100% negative identified in all 80 removed native liver.

Conclusions:

In our liver transplant setting, high positive HCV-RNA was found in the removed native liver, which proved that HCV-RNA in the serum of pre-transplantpatients should be underestimated in the real status of HCV activity. HCV Ag assay may have lack of sensitivity and negative predictive value in liver tissues. In contrast to the serum HCV-RNA and HCV Ag, a great discrepancy might be described between hepatic HCV-RNA and HCV Ag in the liver tissue.