

E34

Risk factors for clinically relevant posthepatectomy liver failure after right hepatectomy for hepatocellular carcinoma

¹Jonathan Navarro, ^{2,3}Gi Hong Choi, ^{2,3}Dai Hoon Han, ^{2,3}Kyung Sik Kim, ^{2,3}Jin Sub Choi

¹*Division of Surgical Oncology, Department of Surgery, Vicente Sotto Memorial Medical Center, Cebu, Philippines*

²*Division of Hepatobiliary and Pancreatic Surgery, Department of Surgery, Yonsei University College of Medicine, Seoul, Korea*

³*Liver Cancer Center, Yonsei Cancer Center, Severance Hospital, Seoul, Korea*

**jonathanix_1069@yahoo.com, Jonathan Navarro*

***choigh@yuhs.ac, Gi Hong Choi*

Purpose:

The risk of posthepatectomy liver failure (PHLF) still remains substantial after right hepatectomy. Additional parameters, such as CT volumetry, liver stiffness measurement by Fibroscan, ICG R15, and platelet count, to properly assess the quality and quantity of the future liver remnant volume are of utmost importance. Thus, we investigated the usefulness of these modalities for predicting PHLF among patients with hepatocellular carcinoma after right hepatectomy.

Methods:

We retrospectively reviewed all patients who underwent right hepatectomy for hepatocellular carcinoma between 2007 and 2013. The PHLF was determined according to the International Study Group of Liver Surgery (ISGLS) consensus definition and severity grading. In this study, grade A was defined as no clinical relevant PHLF while grade B and C were defined as a clinical relevant posthepatectomy liver failure (CRPHLF).

Results:

Among 90 patients included, 15 (16.7%) of them had CRPHLF. Multivariable analysis confirmed platelet count <138(109/L) (HR = 14.812, 95% CI: 2.771 – 779.181, P = 0.002) and RVL/BW ratio of < 0.54 (HR = 44.948, 95% CI: 3.458 - 583.656, P = 0.012) as independent predictors for CRPHLF. Among 11 patients with both platelet counts < 138(109/L) and RLV/BW <0.54, nine (81.8%) of them had CRPHLF. Likewise, 6 (16%) out of 37 patients with only one risk factor developed CRPHL, while there was none among patients who had no risk factors.

Conclusion:

RLV/BW ratio of < 0.54 and platelet count <138(109/L) are independent predictors for CRPHLF. If patients have these risk factors, there is 81% risk of CLPHLF.