

Pure Laparoscopic Versus Open Right Hepatectomy In Patients With Hepatocellular Carcinoma: A Propensity Score-matched Analysis

Yi-yeon NAM¹, Suk Kyun HONG^{*2}, Sola LEE², Sanggyun SUH², Su Young HONG², Eui Soo HAN², YoungRok CHOI², Nam-Joon YI², Kwang-Woong LEE², Kyung-Suk SUH²

¹Medical Student, Seoul National University College Of Medicine, REPUBLIC OF KOREA

²Surgery, Seoul National University College Of Medicine, REPUBLIC OF KOREA

Background : Pure laparoscopic hepatectomy has become one of effective treatments in hepatocellular carcinoma (HCC) patients, but its feasibility and safety are still controversial due to limited literature. The aim of this study was to compare the short- and long-term outcomes of pure laparoscopic right hepatectomy (PLRH) with those of open right hepatectomy (ORH) in HCC patients.

Methods : We retrospectively analyzed prospectively collected medical records of 327 HCC patients who underwent right hepatectomy between January 2010 and April 2020 at Seoul National University Hospital. We performed 1:1 propensity score matching between the PLRH and ORH groups.

Results : Forty nine patients were included in each group. There were significant differences in hospital stay (12.2 vs. 8.9 days; $P < 0.001$) between two groups. While there was a tendency of less blood loss in PLRH group compared to ORH (699.17 vs 405.59mL; $P = 0.058$), the requirement of blood transfusion is significantly less in PLRH than ORH group (10.2 vs. 2.0%; $P = 0.010$). The operative time and proportion of major complication ($P = 0.487$) were comparable in two groups. There were no significant difference in overall survival ($P = 0.524$) and recurrence-free survival rate ($P = 0.576$) between two groups.

Conclusions : Postoperative outcomes including oncologic outcomes were comparable between PLRH group and ORH group. This shows that PLRH can be one of safe and feasible choices which can replace ORH for selected HCC patients.

Corresponding Author : Suk Kyun HONG (nobel1210@naver.com)