

**E21**

Laparoscopic Anatomical Versus Non-anatomical Liver Resection For Hepatocellular Carcinoma Located In The Posterosuperior Segments Of The Liver: A Propensity Score Matched Analysis

Boram LEE¹, **Jai Young CHO**^{*1}, Ho-Seong HAN¹, Yoo-Seok YOON¹, Hae Won LEE¹, Jun Suh LEE¹, Moonhwan KIM¹, Yeongsoo JO¹

¹Surgery, Seoul National University Bundang Hospital, Seoul National University, REPUBLIC OF KOREA

Background : Anatomical resection for tumors, especially located in the posterosuperior (PS) segments of the liver remains difficult. Usually, laparoscopic non-anatomical resection (LNAR) is preferred for hepatocellular carcinoma (HCC) located in the PS segments.

Methods : We retrospectively reviewed the data for 1029 patients who underwent hepatectomy for HCC between January 2004 and December 2018. Of 167 patients who underwent laparoscopic hepatectomy for HCC in PS segments, 64 underwent LNAR and 103 underwent laparoscopic anatomical resection (LAR). Patient were matched one-to-one using propensity score matching (46:46).

Results : LNAR was associated with significantly shorter operation time ($P=0.001$), lower estimated blood loss($P=0.001$), lower transfusion rate ($P=0.006$) and shorter hospital stay ($P=0.012$) than LAR. The respective 1-, 3-, and 5-year overall survival rates (LAR: 95.3, 87.1, and 77.8%; LNAR: 96.7, 91.6, and 85.0%; $P=0.262$) and recurrence-free survival rates (LAR: 75.7, 70.3, and 68.9%; LNAR: 81.8, 58.3, and 55.3%; $P=0.897$) were similar in both groups. Recurrence was mostly intrahepatic in the LNAR group and extrahepatic in the LAR group ($P=0.023$). Post-recurrence treatments differed significantly between the two groups ($P=0.016$); the re-resection rate was much greater in the LNAR group (45.0% vs. 0%) group. The respective 1-, 3-, and 5-year post-recurrence survival rates were similar in the LAR (78.3%, 49.0%, and 49.0%) and LNAR (92.3%, 79.1%, and 59.3%) groups ($P=0.212$). After recurrence, survival in re-resection group was significantly greater than not($P = 0.026$).

Conclusions : LNAR is safe and feasible for HCC located in PS segments, and provided better short-term outcomes than LAR and acceptable oncological outcomes.

Corresponding Author : **Jai Young CHO** (jychogs@gmail.com)