



LV BEST OP 2

Operative and long-term oncologic outcomes of laparoscopic versus open major liver resection in high body mass index patients: a propensity score matching analysis.

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Introduction : Laparoscopic liver resection (LLR) in high body mass index (BMI) patients has been reported to be particularly challenging owing to technical difficulties and various comorbidities.

Methods : We reviewed medical records of patients in high BMI (≥ 25.0 kg/m²) with various liver disease who underwent major liver resection between January 2009 and November 2018 at our center. In total, 521 patients were included in this study and divided into LLR (n=140) and OLR (n=381) groups. For group comparisons, 1:1 PSM was used with covariates of baseline characteristics, including tumor characteristics and surgical liver resection procedures.

Results : After PSM, there were 120 patients in each groups. LLR group had significantly lower blood loss and shorter postoperative hospital stay ($p < 0.001$, respectively). Otherwise, the operation time of LLR were significantly longer than that of OLR in obese patients ($p < 0.001$). Age ≥ 70 years, ≥ 30 BMI, malignancy disease, and use of pringle maneuver were independent predictors for postoperative complication in multivariate analysis. In subgroup analysis with HCC patients, there was no significant difference between the two groups in overall survival hazard ratio [HR], 0.225; 95% confidence interval [CI], 0.049-1.047; $P=0.057$) or recurrence-free survival rates (HR,

Conclusions : LLR for various liver disease in obese patients results in shorter postoperative hospital stays and lower blood loss compared with OLR. In addition, morbidity and long-term oncological outcomes were comparable between LLR and OLR for obese patient with HCC. Our experience suggests that obesity should not be seen as a contraindication for LLR, which is a safe and feasible option for obese patients.

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