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## EP 001

## Postoperative Infective Complications Following Laparoscopic Versus Open Hepatectomy For Hepatocellular Carcinoma: A Multicenter Propensity Score Analysis Of 3,945 Patients

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**Background** : The most common indication of hepatectomy is hepatocellular carcinoma (HCC), while the most common complication of hepatectomy is infection, including incisional and organ/space surgical site infection (SSI) and remote infection (RI). We sought to investigate the relationship of operative approach with the incidence of postoperative infective complications.

**Methods** : From a multicenter database, HCC patients who underwent laparoscopic hepatectomy (LH) or open hepatectomy (OH) were reviewed. Using propensity score matching (PSM), inverse probability of treatment weight (IPTW), and multivariate logistic regression analyses, the 30-day incidences of various postoperative infective complications were compared between patients who underwent LH and patients who underwent OH.

**Results** : Among 3,945 patients, 914 (23.2%) and 3031 (76.8%) patients underwent LH and OH, respectively. In the entire cohort, the incidences of overall infection, incisional SSI, organ/space SSI, and RI among patients who underwent LH were significantly lower than those who underwent OH (7.7%, 1.9%, 2.1% and 4.2% vs. 14.6%, 6.3%, 4.6% and 9.8%, all P<0.05). The similar results were identified in the PSM (7.7%, 1.9%, 2.1% and 4.2% vs. 14.0%, 5.6%, 5.3% and 10.0%, all P<0.05) and IPTW (10.1%, 2.2%, 2.2%, and 6.0% vs. 14.3%, 6.3%, 4.5%, and 9.8%, all P<0.05) cohorts, respectively. After adjustment for other confounding factors, multivariate analyses identified that laparoscopic approach was independently associated with lower incidences of overall infection, incisional SSI, organ/space SSI, and RI in the entire, PSM, and IPTW cohorts, respectively.

**Conclusions** : Compare with open approach, laparoscopic approach was associated with lower incidences of various postoperative infective complication among patients who underwent hepatectomy for HCC.

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