OP 5-4

Laparoscopic Liver Resection Versus Percutaneous Radiofrequency Ablation For Single Small Hepatocellular Carcinoma (≤3cm): Optimal Indication Based On The Tumor Size And The Level Of PIVKA-II

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Background : Liver resection and percutaneous radiofrequency ablation (pRFA) are curative treatment options for single small hepatocellular carcinoma (HCC). In the era of minimally invasive surgical resection of HCC, we attempted to suggest the optimal indication for compared laparoscopic liver resection (LLR) and pRFA for single small HCC through comparing the long-term outcomes.

Methods : From 2008 to 2019, a total 342 newly diagnosed patients with single HCC ≤ 3cm underwent pRFA or LLR as first-line therapy. A total of 268 patients were retrospectively analyzed, excluding those with a Platelet count less than 100,000. Treatment outcomes including marginal recurrence and recurrence free survival (RFS) were compared between the two groups. According to the tumor factors (tumor size and tumor markers), recurrence-free survival was further analyzed.

Results : A total of 122 and 146 patients underwent RFA and LLR, respectively. pRFA showed significantly higher marginal recurrence rate than LLR [21 (17.2%) versus 1 (0.7%), p〈0.0001]. LLR has better RFS and overall survival than pRFA (p 〈 0.0001). Even though pRFA and LLR showed no statistical difference in RFS in patients with tumor size ≤1.5cm in diameter (p=0.08), LLR provided better RFS in patients with a larger tumor (p〈0.001). In patients with normal serum level of PIVKA II (〈35ng/mL), the two groups showed comparable RFS (p=0.279). however, LLR provided better RFS in patients with higher level of PIVKAII (p〈0.001). With combination of these two variables, LLR had better RFS in patients with both of larger tumor size and high level of PIVKAII (p〈0.001). otherwise, two groups had comparable RFS (p=0.158).

Conclusions : LLR showed better long-term outcomes than pRFA. In patients with both high PIVKA-II (〉 35mAU/mL) and the size of tumor between 1.5cm and 3cm, LLR is recommended.

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