

LV DB 3

Surgical Strategies For $HCC \leq 3$ Cm Based On Tumor Biology

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Lecture : Background: Early hepatocellular carcinomas ($HCC \leq 3$ cm) are generally considered to have low malignant potential; however, some of them display pathological microvascular invasion (MVI). Methods: Clinical data of 414 patients with a single $HCC \leq 3$ cm underwent curative hepatic resection (HR) were retrospectively analyzed, and preoperative predictors for MVI were identified. Using another cohort including 149 patients, our predictors for MVI in $HCC \leq 3$ cm were validated. In 428 patients with single $HCC \leq 3$ cm who had predictors for MVI, survivals was compared among anatomical HR (n=149), partial HR (n=227), and radiofrequency ablation (RFA) (n=52). Results: The positive rate of MVI reached 40.6% (168/414 patients). The independent predictors for MVI were as follows: tumor diameter ≥ 2 cm (odds ratio 1.84), alpha-fetoprotein (AFP) ≥ 200 ng/ml (odds ratio 1.82), and des-gamma-carboxy prothrombin (DCP) ≥ 40 mAU/ml (odds ratio 1.79). Matching at least one predictor among these three could predict MVI in $HCC \leq 3$ cm well (sensitivity 82.8%, positive predictive value 48.7%). This criterion could also predict MVI in $HCC \leq 3$ cm well in another cohort (sensitivity 82.8%, positive predictive value 30.3%). In patients with single $HCC \leq 3$ cm matching our criterion for predicting MVI, anatomical HR led to significantly better survival in both disease-free (Hazard ratio 0.689, $p=0.0231$) and overall (Hazard ratio 0.589, $p=0.0316$) survivals. Conclusion: Matching at least one factor among three (tumor diameter ≥ 2 cm, AFP ≥ 200 ng/ml, or DCP ≥ 40 mAU/ml) can predict MVI in $HCC \leq 3$ cm. In such patients, anatomical HR would be recommended to improve survival.