Survival with up to 10-year follow-up after combination therapy of chemoembolization and radiofrequency ablation for the treatment of hepatocellular carcinoma: single-center experience.

Purpose: To report 10-year outcomes of treating hepatocellular carcinomas (HCCs) by combination therapy of chemoembolization and RF ablation.

Materials and Methods: We performed combination therapy in 277 patients with 382 treatment-naive HCCs. Therapeutic effects, safety, survival rate, and prognostic factors were evaluated.

Results: Tumor enhancement disappeared after 466 RF sessions in all tumors, resulting in the complete response rate of 100% (277/277) based on modified response evaluation criteria in solid tumors (RECIST). Local tumor progression developed in 15 patients (5.4%, 15/277) during the mean follow-up of 44.9±29.1 months (range 6.0–134.4 months). Overall and recurrence-free survival rates were, respectively, 56.3% (95% confidence interval [CI]: 52.5–60.2%) and 22.5% (95%CI: 19.3–25.6%) at 5 years, and 23.5% (95% CI, 17.7–29.2%) and 9.3% (95%CI: 6.3–12.4%) at 10 years. The Child–Pugh class was the only significant prognostic factor detected in both the univariate (p<0.001) and multivariate analyses (hazard ratio, 3.8; 95%CI: 2.5–5.6, p<0.001). The 5-year and 10-year overall survival rates were 66.4% (95%CI, 62.0–70.8%) and 30.6% (95%CI, 23.3–37.9%) in 210 Child–Pugh class A patients. In addition to the Child–Pugh class, the maximum tumor diameter (≤3 cm vs. >3 cm) and the tumor number (single vs. multiple) were significant independent factors affecting recurrence-free survival. No death was related to the combination therapy. The major complication rate was 3.2% (15/466).

Conclusion: RF ablation combined with chemoembolization is a safe and useful therapeutic option for treating HCCs. Prognostic factors detected in this study help to stratify patients who benefit from this combination therapy.