

E04

Bridging and downstaging role of transarterial radioembolization (TARE) for expected small remnant volume after liver resection in hepatocellular carcinoma

**Jeong-Moo Lee¹, Kyung-Suk Suh¹, Suk Kyun Hong, Jae-Hyung Cho,
Nam-Joon Yi¹, Kwang-Woong Lee¹**

¹Department of Surgery, Seoul National University College of Medicine, Seoul, Korea

ABSTRACT

Purpose: Hepatectomy is the best treatment to improve survival in liver cancer. However, if the tumor is located in the central portion or the remaining remnant liver volume is small, there is a risk of complications such as hepatic failure after surgical treatment. Transarterial radioembolization (TARE) is a radiosurgical technique using yttrium-90 to induce primary tumor necrosis and hypertrophy of remnant liver to reduce the risk of liver failure and enable safe hepatic resection. In this study, we report a case of patients with hepatic resection after TARE.

Methods: Between January 2017 and December 2017, we performed hemihepatectomy in 5 patients who had unresectable causes like central located, small remnant liver volume, vascular invasion to major vessel. We performed TARE 3 month before surgical resection. Then we check tumor volume and expected remnant liver volume after surgical resection. Re-evaluating of liver function test, CT scan 4 weeks after TARE, and ICG test for patient safety, then we performed surgical resection.

Results: None of the 5 patient had recurrence during observation period. There was no hepatic failure after surgical resection 4 cases underwent Rt. hemihepatectomy and 1 case underwent extended Rt. hemihepatectomy. The mean operative time was 160 minutes. Mean hospital day was 7.5 days and mean blood loss 120 cc. Mean tumor shrinkage rate was -21.1 % and mean remnant liver hypertrophy rate was 39.5%. Only 1 case had wound complication, but the others had no postoperative complication.

Conclusion: Surgical resection after TARE is feasible technique for surgically unresectable cases of hepatocellular carcinoma.