

E34

Synchronous and simultaneous colorectal liver metastases resection: Prognostic impact of resection margin

Na Reum KIM¹, Gi Hong CHOI*¹

¹Department of Surgery, Division of Hepato-biliary and Pancreatic Surgery, Yonsei University College of Medicine, Republic of Korea

Background : A ≥ 1 -mm margin is standard for colorectal liver metastasis (CRLM) liver resection. However, microscopic incomplete resection (R1) is not rare because aggressive surgical resection has been attempted in multiple and bilobar CRLM. The study aimed to investigate the prognostic impact of resection margin along with perioperative chemotherapy in CRLM.

Methods : From January 2006 to June 2017, patients who underwent simultaneous CRLM liver resection was included. R1 resection was defined as either abutting tumor on the resection line or involved margin at the pathologic report were included. All patients were divided into R0 (tumor-free margin of ≥ 0 -mm) and R1 groups and analyzed.

Results : Among 371 patients, 368 patients were enrolled (R0, n=304; R1, n=64) and 3 patients were excluded due to R2 resection. Overall survival (OS) and intrahepatic recurrence-free survival (RFS) were comparable in both R0 and R1 groups with or without neoadjuvant chemotherapy (with chemotherapy, OS, p= 0.366; RFS, p= 0.212, without chemotherapy, OS p= 0.231; RFS, p= 0.054). On multivariate analysis, poorly differentiated and positive N stage of colorectal cancer (CRC), ≥ 5 cm liver lesion, TBS, and KRAS mutation were independent prognostic factors. Furthermore, CRC positive N stage, ≥ 4 liver lesions, and neoadjuvant chemotherapy had a negative impact and adjuvant chemotherapy had a positive impact on recurrence. The surgical site recurrence was higher in the R1 group (16.1 vs 26.6%, p= 0.048).

Conclusions : R1 resection was associated with an increased risk of surgical site recurrence, however, had no effect on OS and intrahepatic RFS with or without neoadjuvant chemotherapy. Aggressive tumor features may play a role as prognostic factors affecting survival, and resection margin was not a predictive factor. Adjuvant chemotherapy resulted in a positive effect on intrahepatic RFS, and it is important to treat CRLM with a multidisciplinary approach.

Corresponding Author : **Gi Hong CHOI** (CHOIGH@yuhs.ac)