

Which is the best first approach for liver-only synchronous metastasis rectal cancer?

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Background

• Approximately 10-15% of patients (p) with rectal cancer have synchronous liver-only metastasis. Some of these patients are treated with curative intention.

• A multidisciplinary management with rectal and liver metastases surgery, pelvic radiation and systemic chemotherapy is required for these patients. However, there is not a well defined sequence of treatments. We previously reported the analysis of both, the initial systemic and the initial local approaches at a single institution. Now we present the analysis including the data of two institutions.

Study Objectives

▮ To determine the outcomes (overall survival) of patients with liver-only synchronous metastases rectal cancer treated with “first chemotherapy” and “first local” approaches.

▮ To determine the clinical characteristics conferring poor prognosis in this setting.

Material & Methods

▮ Retrospective study. Medical records of 74 rectal cancer patients with synchronous liver-only metastases were reviewed. Patients diagnosed between January 2005 and January 2014 at La Paz University Hospital and 12 Octubre University Hospital.

▮ “First chemotherapy” group include the patients initially treated with chemotherapy and curative intention. “First local” group include the patients which first treatment approach was surgery or radiation with curative intention.

▮ Overall survival was calculated from the time of diagnosis to the last follow-up or death.

Results

Table 1 shows the baseline patient characteristics

Table 2 shows the “First chemotherapy” and “First local” patient characteristics

Figure 1 shows the overall survival curves for “First chemotherapy” and “First local” approaches

After univariate analysis in patients with curative intention, basal CEA > 10.5 ng/mL, largest liver metastasis size (LLMS) ≥ 2.5 cm, non liver and rectal resection (LRR), and non R0 liver metastases resection were found to be prognostic variables for poor survival. Figure 2 shows the overall survival according to these variables.

Table 1. Baseline patient characteristics

| No. Patients | | Liver metastasis characteristics | |
|--------------|----------|----------------------------------|----------|
| 74 | | | |
| Age | | Bilobar | |
| Median | 64 | | 39 (53%) |
| Range | 35-88 | | |
| Gender | | No. Lesions | |
| Male | 43 (58%) | Median | 3 |
| Female | 31 (42%) | Range | 1-17 |
| ECOG | | Largest Size lesion (cm) | |
| 0 | 33 (45%) | Median | 2.9 |
| 1 | 32 (43%) | Range | 0.5-18.0 |
| ≥ 2 | 9 (12%) | | |
| K-RAS status | | Curative intention | |
| Known | 51 (69%) | | 52 (70%) |
| Wild-type | 41 (80%) | Liver and rectal resection | |
| Mutated | 10 (20%) | | 43 (58%) |
| | | CEA (ng/mL) | |
| | | Median | 19.0 |
| | | Range | (1-9633) |

Table 2. “First chemotherapy” and “First local” patient characteristics.

| | Chemo first | Local first | p-value |
|--------------------------------------|-------------|-------------|---------|
| No patients | 34 | 18 | - |
| Age (median) | 60 | 65 | 0.15 |
| ECOG 0-1 | 34 (100%) | 16 (89%) | 0.02 |
| Bilobar distribution | 17 (52%) | 5 (28%) | 0.14 |
| Number of metastasis (median) | 3 | 1 | 0.03 |
| Largest metastasis size (median, cm) | 3.5 | 1.4 | 0.01 |
| CEA (median) | 14 | 4.5 | 0.01 |
| Liver and rectal Surgery | 26 (76%) | 16 (89%) | 0.46 |
| R0 Liver margin | 21 (84%) | 8 (66%) | 0.39 |
| K RAS WT | 23 (79%) | 8 (80%) | 0.96 |

Figure 1. First approach overall survival

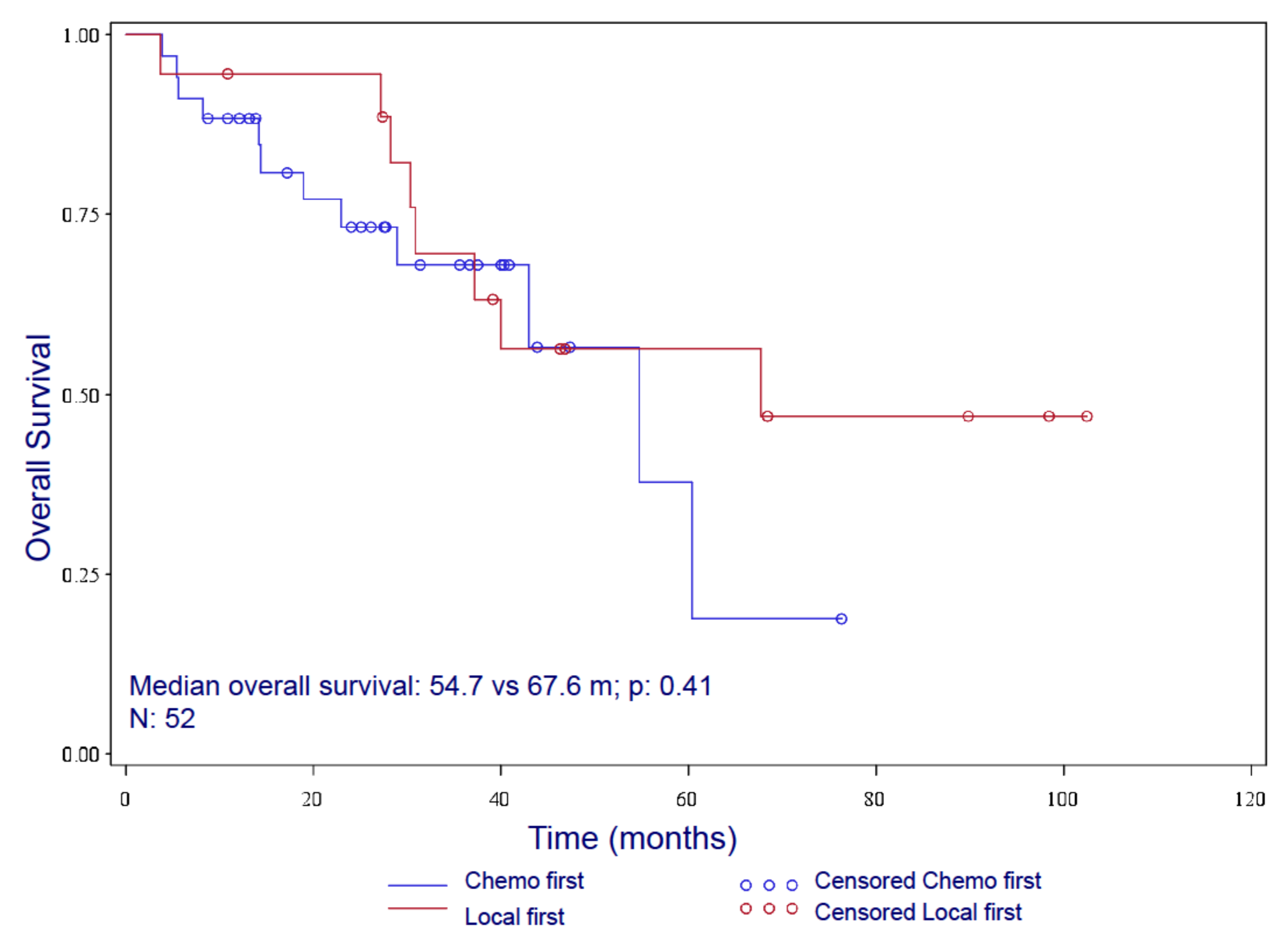


Figure 2a. Liver metastasis resection status

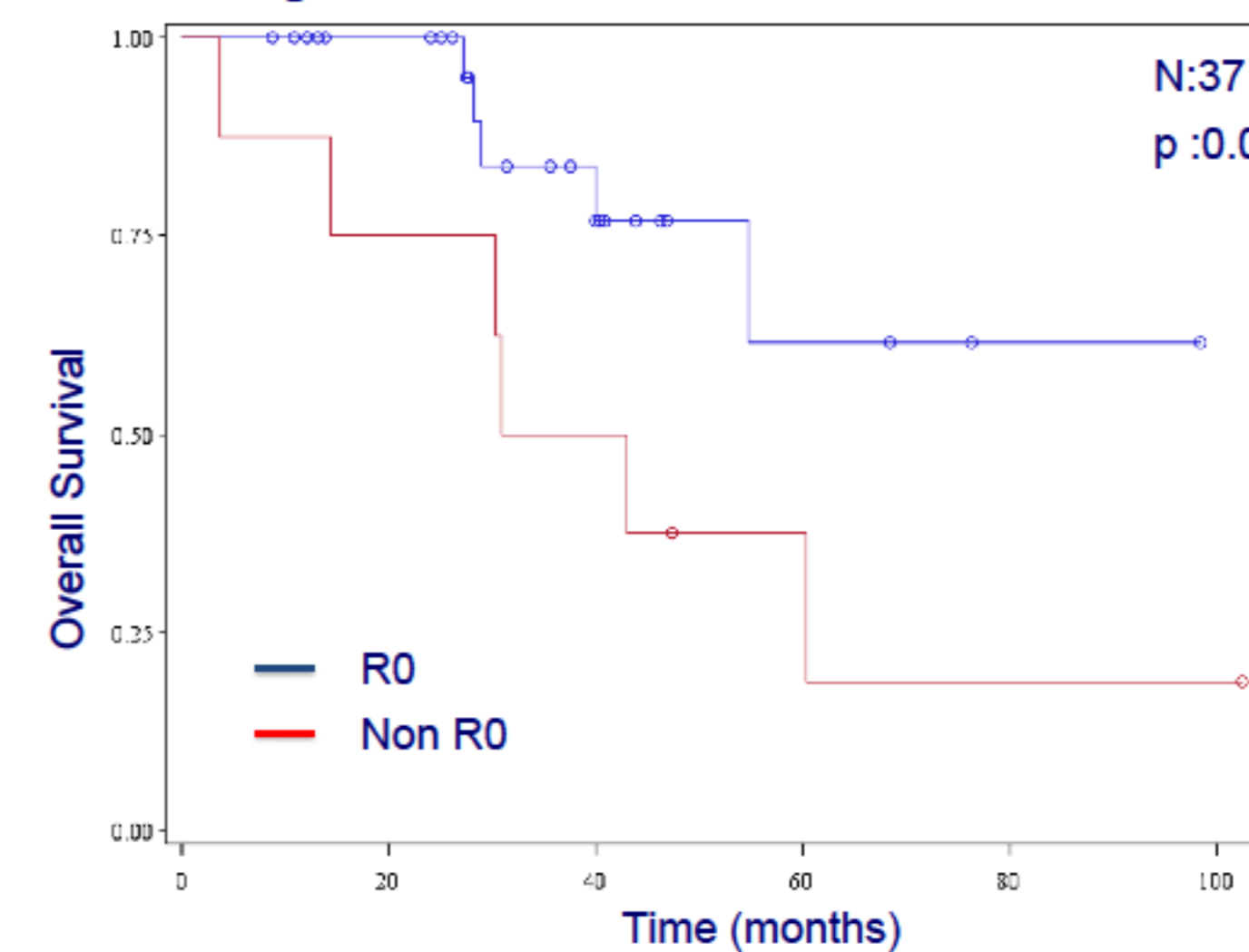


Figure 2b. Basal CEA level

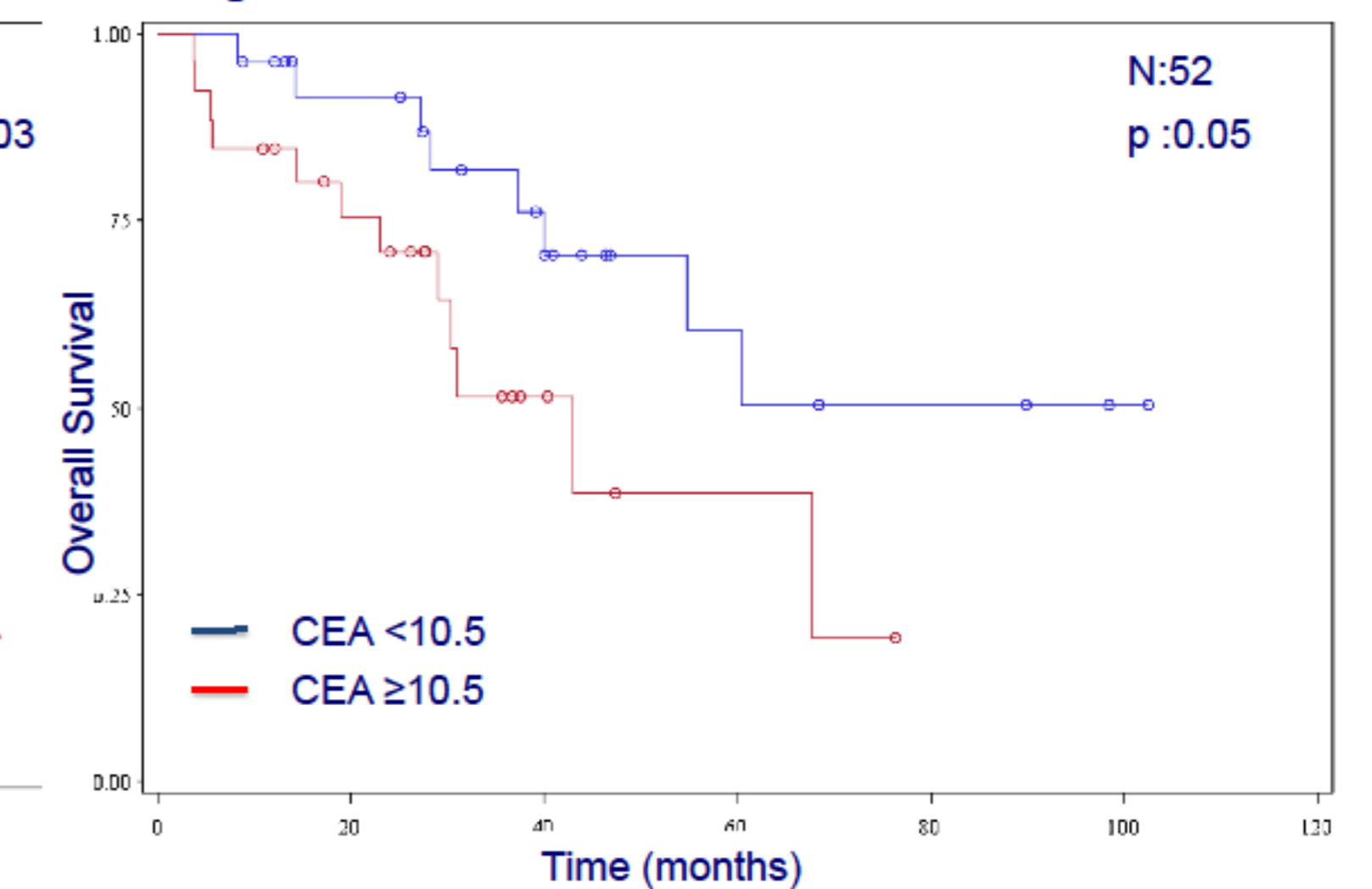


Figure 2c. Liver and rectal tumor resection status

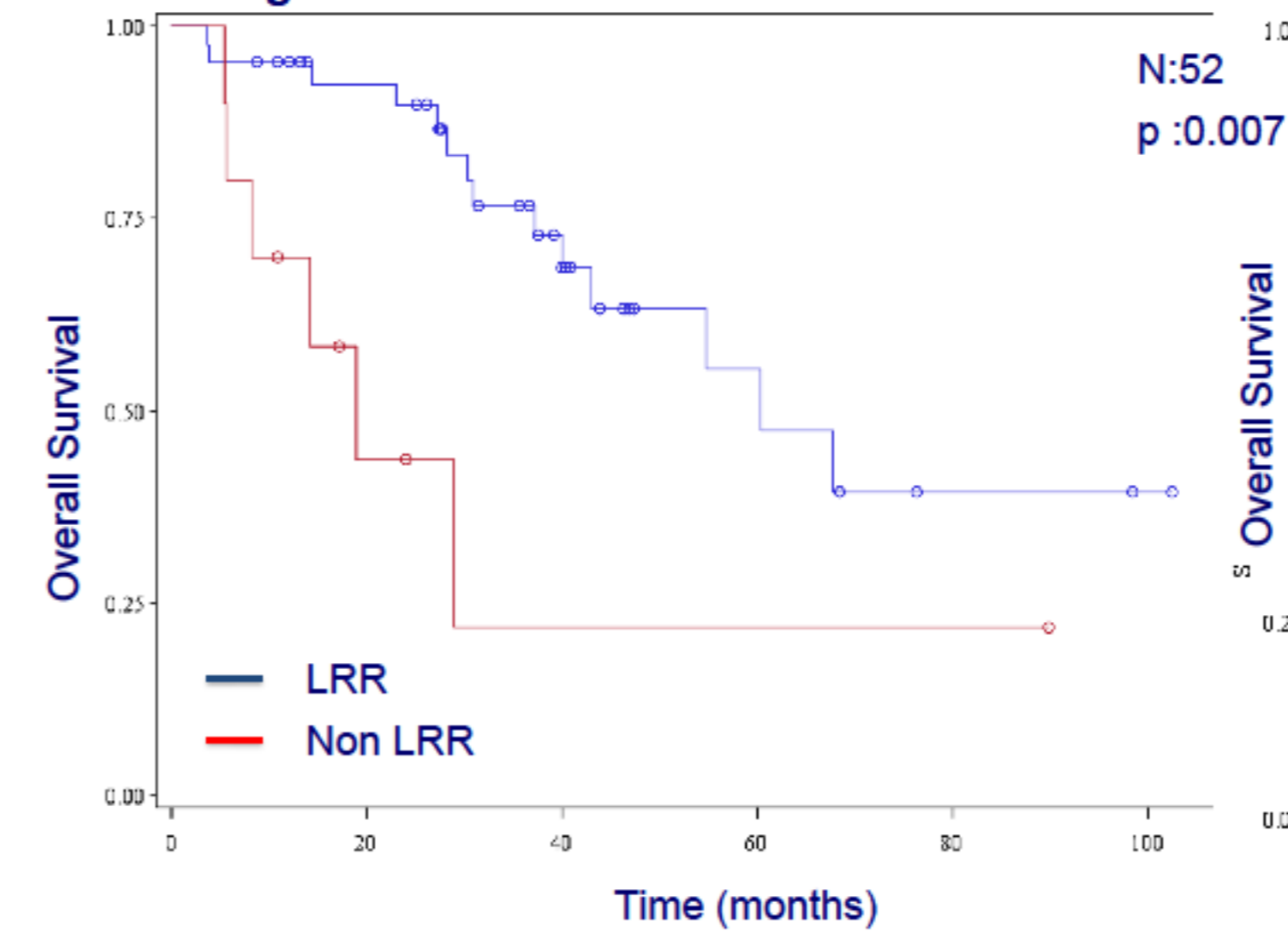
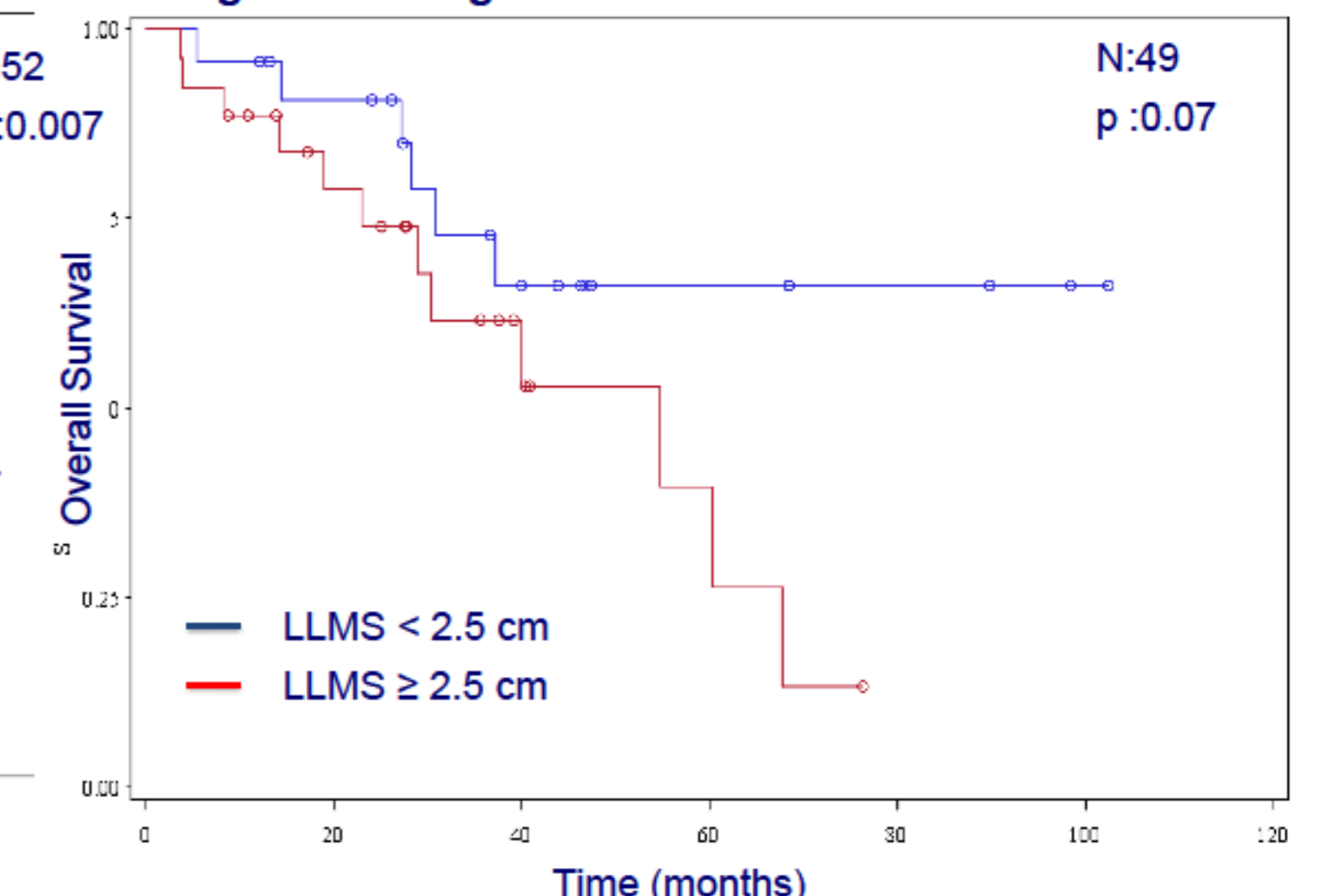


Figure 2d. Largest liver metastasis size



Conclusions

- Basal CEA > 10.5 ng/mL, largest liver metastasis size ≥ 2.5 cm, non liver and rectal resection and non R0 liver metastases resection were predictors of poor overall survival.

- The “First chemotherapy” approach was chosen for patients with worse prognostic. However, there were no significant differences in overall survival between “First chemotherapy” and “First local” approaches.

- Clinical trials are needed to evaluate the best therapy strategy in this setting.

