



Exploring better stratification methods for individualized treatment of patients with colorectal cancer liver metastases

Deyao Zhang, Dandan Hu

Department of Liver Surgery, Sun Yat-sen University Cancer Center, Guangzhou, China

Correspondence to: Dandan Hu. Department of Hepatic Surgery, Sun Yat-sen University Cancer Center, 651 Dongfeng East Road, Guangzhou 510060, China. Email: hudd@sysucc.org.cn.

Comment on: Yao J, Chen Q, Deng Y, *et al.* Nomograms predicting primary lymph node metastases and prognosis for synchronous colorectal liver metastasis with simultaneous resection of colorectal cancer and liver metastases. *Ann Palliat Med* 2021;10:4220-31.

Submitted Jun 19, 2022. Accepted for publication Sep 01, 2022.

doi: 10.21037/apm-22-754

View this article at: <https://dx.doi.org/10.21037/apm-22-754>

The treatment of colorectal cancer liver metastases (CRCLM) has raised increasing interest among surgeons as the broadened indication of surgical approaches. The treatment decision has to consider a series of factors including the location of primary colorectal cancer (CRC), status of *RAF/RAS* gene, condition of liver metastases, and existence of extrahepatic metastases, etc. The article by Yao *et al.* presented their data and developed nomograms predicting primary lymph node metastases and prognosis for synchronous CRCLM patients underwent simultaneous resection (1). These results help physicians identify patients at risk of major complications and early recurrence. As indicated in the manuscript, progression-free survival (PFS) were related to poor differentiation, positive lymph node metastasis, bilobar liver distribution, and R0 resection. However, other well-recognized prognostic factors showed no significant results in the current study. For example, the level of carcinoma embryonic antigen (CEA), primary site of CRC, preoperative chemotherapy, postoperative chemotherapy, *RAS* gene status, etc. In the cohort, 51.04% patients performed *RAS* gene detection, it is better to include it as a potential factor. The most recognized standard assessing the tumor biology is the clinical risk factor scoring system (CRS) presented by Fong *et al.* in 1999 (2), including five indicators: regional lymph nodes, interval between primary tumor resection and metastasis, number and size of liver metastases, and CEA level. It shall be better if the authors compared the new nomogram to the CRS score to testify the efficacy of each methodology.

It is now globally accepted that the goal of treatment of CRCLM has converted from R0 resection to achieve no

evidence of disease (NED). If NED eligible, locoregional therapy is recommended to improve the outcomes. In the present study, liver resection and radiofrequency ablation (RFA) were included as surgical modalities. But surgeons are now using more aggressive strategies upon CRCLM patients. Associated liver partition and portal vein ligation for staged hepatectomy (ALPPS) and liver transplantation (LT) showed favorable results in the management of CRCLM patients (3). LT is considered the ultimate means of surgery to treat the intrahepatic lesions (4). In SECA-II study, nonresectable CRCLM patients underwent LT showed 100%, 83%, and 83% survival at 1, 3, 5 years, comparing to the 5-year overall survival (OS) of 10% for patients receiving palliative chemotherapy (5). Regarding ALPPS, the median OS and recurrence-free survival (RFS) in a 510 primarily unresectable CRCLM patient cohort were 39 and 15 months, respectively (6). Via these approaches, liver surgeons can technically treat every CRCLM patients, but how to select the patients for the most appropriate treatment plan is worth discussing. If future analysis can include the emerging techniques, they can provide better evidence for physicians in different clinical scenarios. The present study has included 241 patients with simultaneous resection of the primary CRC and concurrent liver metastases. As the oncological outcomes were comparable between simultaneous and staged resection (7), the risk factors regarding staged resection can be explored in a similar way. Besides, the median number of intrahepatic metastases is 2 [1–4], laparoscopic liver resection is a potential surgical option for selective cases. It shall be more informative if the authors

provide data of laparoscopic versus open surgery (8).

In conclusion, the patients diagnosed to have CRCLM are extremely heterogeneous. The identification of risk factors and stratification of patients accordingly are crucial to the treatment decisions. The article provided well-organized evidence, but as mentioned above, more factors should be considered to better fit the current clinical settings. In the multidisciplinary era, the combination and sequence of different treatment modalities is the key to strive for the best outcome for every patient.

Acknowledgments

Funding: None.

Footnote

Provenance and Peer Review: This article was a standard submission to the journal. The article did not undergo external peer review.

Conflicts of Interest: Both authors have completed the ICMJE uniform disclosure form (available at <https://apm.amegroupp.com/article/view/10.21037/apm-22-754/coif>). The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Open Access Statement: This is an Open Access article distributed in accordance with the Creative Commons Attribution-NonCommercial-NoDerivs 4.0 International License (CC BY-NC-ND 4.0), which permits the non-commercial replication and distribution of the article with the strict proviso that no changes or edits are made and the original work is properly cited (including links to both the

formal publication through the relevant DOI and the license). See: <https://creativecommons.org/licenses/by-nc-nd/4.0/>.

References

1. Yao J, Chen Q, Deng Y, et al. Nomograms predicting primary lymph node metastases and prognosis for synchronous colorectal liver metastasis with simultaneous resection of colorectal cancer and liver metastases. *Ann Palliat Med* 2021;10:4220-31.
2. Fong Y, Fortner J, Sun RL, et al. Clinical score for predicting recurrence after hepatic resection for metastatic colorectal cancer: analysis of 1001 consecutive cases. *Ann Surg* 1999; 230: 309-318; discussion 318-321.
3. Ruffolo LI, Hernandez-Alejandro R, Tomiyama K. Refining the surgical playbook for treating colorectal cancer liver metastases. *Hepatobiliary Surg Nutr* 2021;10:397-400.
4. Martin J, Petrillo A, Smyth EC, et al. Colorectal liver metastases: Current management and future perspectives. *World J Clin Oncol* 2020;11:761-808.
5. Dueland S, Syversveen T, Solheim JM, et al. Survival Following Liver Transplantation for Patients With Nonresectable Liver-only Colorectal Metastases. *Ann Surg* 2020;271:212-8.
6. Petrowsky H, Linecker M, Raptis DA, et al. First Long-term Oncologic Results of the ALPPS Procedure in a Large Cohort of Patients With Colorectal Liver Metastases. *Ann Surg* 2020;272:793-800.
7. Cassese G, Cherkaoui Z, Navarro F, et al. Comment on: simultaneous versus delayed resection for initially resectable synchronous colorectal cancer liver metastases. *Hepatobiliary Surg Nutr* 2021;10:131-3.
8. Hasegawa Y, Kitago M, Abe Y, et al. Does laparoscopic resection for colorectal cancer liver metastasis have a long-term oncologic advantage? *Hepatobiliary Surg Nutr* 2021;10:246-8.

Cite this article as: Zhang D, Hu D. Exploring better stratification methods for individualized treatment of patients with colorectal cancer liver metastases. *Ann Palliat Med* 2022;11(10):3369-3370. doi: 10.21037/apm-22-754