

Comment on: Cytoreductive Surgery With Hyperthermic Intraperitoneal Chemotherapy and Liver Resection Is a Treatment Option for Patients With Peritoneal and Liver Metastases From Colorectal Cancer

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We read with interest the recent cohort study by Dagenborg et al,¹ on the role of cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC) for peritoneal metastasis in patients who also had surgery for colorectal liver metastasis¹ (CRLM)—with debut of CRLM either as prior, during (ie, synchronous surgery), or after the index procedure of CRS-HIPEC. We would like to congratulate the investigators for the effort of compiling data from a very heterogeneous group, treated over a long time period (17 years) into a comprehensive presentation. The 57 patients were operated for this combined indication (CRLM surgery + CRS-HIPEC), representing 11% of all CRS-HIPEC for colorectal cancer in the study period. Grouped into the timing of the CRS-HIPEC in relation to liver treatment, the largest group had simultaneous liver surgery at the time of CRS-HIPEC (n = 29). The 5-year overall survival is reported at 30%,¹ which is lower than that reported for simple CRS-HIPEC at 35% to 50%. It has been known for a decade that these patients do worse than conventional CRS-HIPEC for isolated peritoneal metastasis.² However, as the median recurrence-free survival was only 6 months, one may question the role of CRS-HIPEC as a curative-intent procedure, as the cancer-free survival is very short. Overall survival is most likely attributed to response (or resistance) to further systemic treatment. It is also of concern that 9 (16%) patients were censored before the 5-year mark in overall survival in the Kaplan-Meier curve. We are concerned that the actuarial survival estimates might be inflated as a result; hence, the actual survival should be reported. In overall survival analysis, there is an event-free period lasting over 12 months after CRS-HIPEC despite the early recurrence pattern, which may again point to an effect

of systemic therapy rather than the operation. As noted in the flowchart, 4 patients were further initially excluded as they had insufficient information in the charts (of 61 eligible patients). This can be expected from retrospective studies yet may be crucial when reporting results of highly complex surgery with uncertain outcomes. For complete overall survival, it might have been possible to link data to the Norwegian Cause of Death Registry, at least to obtain the extra survival information on the 4 additional patients that had CRS-HIPEC (but excluded) and the 9 patients that were lost to follow up, at least to obtain information in 5-year window from CRS-HIPEC.

Further, it would have been informative to present the Kaplan-Meier curves split for the 3 groups in overall survival, as well as for recurrence-free survival. As 11 patients had CRS-HIPEC after having undergone previous hepatectomy for CRLM, it is noted for this particular group that 10 of 11 died within a relatively short time after CRS-HIPEC, and only 1 survived at 5 years. This group may be least suitable for CRS-HIPEC, even in the highly selected patients in the study. We would welcome the authors thoughts to the posthepatectomy indication for CRS and HIPEC, and whether the data should suggest if there is any indication to justify this.

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