LETTER TO THE EDITOR

Sinusoidal Obstruction Syndrome Impairs Long-Term Outcome of Colorectal Liver Metastases Treated with Resection after Neoadjuvant Chemotherapy

TO THE EDITORS:

We read with interest the article by Tamandl et al.¹ in the field of chemotherapy-associated liver injury in patients with colorectal liver metastases. The authors showed that the presence of sinusoidal obstruction syndrome (SOS) was an independent prognostic factor predicting early recurrence and poor overall survival.

It seems doubtful whether histological assessment was performed adequately because 20% of the patients who did not receive any preoperative chemotherapy had an SOS grade of 1. Simple dilation of sinusoid is sometimes observed within the embolized hemiliver in patients undergoing portal vein embolization.² SOS is a drug-induced sinusoidal endothelial cell damage, and simple dilation of sinusoid is completely distinct from SOS.

We emphasize that the conclusions of this study were based on a subgroup analysis of 20 (10.0%) of 196 patients with high-grade SOS, and the results were interpreted only by speculation, without any strong background. Aside from the statistical results, it seems questionable that SOS, diagnosed at a static period, would influence patients' oncological long-term outcome. The authors hypothesized that disruption of the sinusoidal endothelial cells facilitates the multistep process of tumor cell adhesion and invasion into the liver parenchyma, while it has been demonstrated that the circulating tumor cells significantly decrease in patients with nonprogressive disease who receive preoperative chemotherapy.³ Therefore, there is little opportunity that circulating tumor cells soil to hepatocytes when 90.5% of the study population with SOS had nonprogressive disease.

In this study, it is not surprising that R1 resection was not associated with poor recurrence-free and overall

survival. Indeed, modern chemotherapy regimens have enabled surgeons to perform parenchymal-sparing surgery, and postoperative chemotherapy plays an important role in this context.⁴ The authors did not assess the role of postoperative chemotherapy on long-term survival. They mentioned that SOS may compromise perioperative outcome, but they did not evaluate the impact of SOS on early postoperative outcome, particularly liver failure, intraoperative blood loss, and amount of transfusion, which are also associated with early recurrence after hepatectomy for colorectal liver metastases.

In conclusion, this study is still the first to show that SOS may be associated with long-term survival. However, in our opinion, these statistically proven results may be explained by the results of an experimental study showing that a long exposure to oxaliplatin was associated with chemoresistance and aggressive tumor behavior—a finding that requires further prospective evaluation.⁵

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Published Online: 16 August 2011
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