

Perioperative Outcomes Of Sinusoidal Obstruction Syndrome Underwent Liver Resection For Colorectal Metastases After Neoadjuvant Chemotherapy.

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Background : In Colorectal liver metastasis (CRLM), the effect of chemotherapy-associated liver injury (CALI) is one of the considerations for patients who need liver surgery. There are many assumptions about CALI, but most of them are unclear. Sinusoidal obstruction syndrome (SOS) is the most common type of CALI, we investigated the incidence of SOS and their effect on the post operative outcomes.

Methods : From December 2007 to December 2020 liver specimens of patients who underwent liver resection for CRLM after neoadjuvant chemotherapy were analyzed about liver damage in the non-tumorous lesion. Through the pathological review, patients who developed grade 1 (mild) and grade 2 or 3 (severe) sinusoidal dilatation (SD) were categorized for the SOS group, and postoperative outcomes were compared with the other control group (No SOS group).

Results : Out of 297 patients, 180 patients were consequently included. The incidence of SOS was 38.9% (n=70, mild) and 11.7% (n=21, severe), respectively. There was no difference according to preoperative factors between the SOS group and the No SOS group. The occurrence of SOS did not negatively impact the overall survival and recurrence-free survival outcomes. SOS group and No SOS group were similar in perioperative mortality and morbidity rates, too. However, SOS group had significantly increased intraoperative blood loss (1332.5 ± 1874.2 vs 555.3 ± 566.7 , $P=0.013$) and intraoperative blood transfusion (2.60 ± 4.62 vs 0.59 ± 1.23 , $P=0.004$).

Conclusions : Liver surgery in patients who develop SOS appears to be associated with increased intraoperative blood loss and consequently increased blood transfusions. More cautious is needed during liver surgery in these patients.

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