

Session Title: Challenging the Intriguing Colorectal Liver Metastasis

Lecture Title: Should vanished CRLM after chemotherapy still be resected?

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With recent advancement in chemotherapeutic agents, more and more patients with colorectal cancer liver metastasis (CRLM) are undergoing chemotherapy either pre- or postoperatively. Benefit of adjuvant chemotherapy in patients with initially resectable CRLM has been area of hot debate for a long time. However, there are subset of patients who gets clear benefit from adjuvant chemotherapy, such as down-sizing, conversion from unresectable to resectable state, etc. At the same time, sometimes, issues such as progression while on chemotherapy, development of steatosis or sinusoidal congestion can be considered as downside.

In case of disappeared lesion during chemotherapy, it may influence surgical planning and treatment process. Surgeon may also experience difficulty in localization of tumor.

In study by Tanaka et al.(1), they examined 86 metastases showing complete response by imaging. Among them, 31 lesions still macroscopically visible during surgery. Among 55 lesions which was not visible during surgery, 27 was not resected and 11 of them eventually recurred during follow-up. In total, 30.6% of lesions had either microscopically confirmed persistent metastases or recurrence in situ. Benoist et al.(2) reported that 83% (55/66) of metastases showing complete response on imaging eventually showed either persistent microscopic or macroscopic disease or early recurrence.

Therefore, it is recommended that all the lesions shown on initial imaging study needs to be included in the resected specimen although it may not be visible on final imaging study before surgery. However, this principle obviously

influence surgical planning and the amount of liver that can be remained. Surgeons have to weigh risk versus benefit of resecting additional volume of liver in case of invisible lesion after thorough exploration in the operation room.

References

1. Tanaka K, Takakura H, Takeda K, Matsuo K, Nagano Y, Endo I. Importance of complete pathologic response to prehepatectomy chemotherapy in treating colorectal cancer metastases. *Annals of surgery*. 2009;250(6):935-42.
2. Brouquet A, Zimmitti G, Kopetz S, Stift J, Julie C, Lemaistre AI, et al. Multicenter validation study of pathologic response and tumor thickness at the tumor-normal liver interface as independent predictors of disease-free survival after preoperative chemotherapy and surgery for colorectal liver metastases. *Cancer*. 2013;119(15):2778-88.