

## Surgical Resection of Liver Metastases from Breast Cancer

Department of Surgery, Gangnam Severance Hospital, YUHS

Joon Seong Park

### Introduction

Invasive breast cancer, generally considered a systemic disease at the time of presentation, is formally diagnosed when metastases are detected. The extent of this disease upon presentation could explain why surgical resection of liver metastases from breast cancer remains controversial. Liver metastases are found 55-75% of autopsies of patients with breast cancer. Liver is the primary site of recurrence in 12-15% of patients but less than 5% of liver metastases are isolated.

### Rationale of Hepatic Resection for Liver Metastasis of Breast Cancer

The rationale for hepatic metastasectomy is as follows; metastatic deposits in the liver may give rise to further dissemination to other organs according to the hypothesis of the "cascade" phenomenon, -liver metastases are particularly resistant to most hormonal and chemotherapeutic agents, - hepatic resection can be performed with mortality rates well below 5% and is associated with good long-term results in selected patients

### Does Hepatic Resection Increase Survival?

Advances in surgical technique and postoperative care have decreased perioperative mortality of major liver resections to less than 5% for experienced surgical teams. The median survival after resection of metastases from breast cancer ranged from 27 to 63 months. The overall 5-year survival rate varied between 18 and 61%. However, despite these limitations, in this select group of patients hepatic resection in-

creases long-term survival rates compared to standard systemic treatment

### Survival Prognosis Factors of Surgical Resection of Liver Metastasis

The high recurrence rate provides a strong impetus to identify prognostic factors, and determine the patients who are most likely to benefit from hepatic resection. The interval between diagnosis of breast cancer and the detection of liver metastases was reported as the main prognostic factors. Tumor biology may play an important role in predicting survival, as patients with more aggressive tumors are more likely to present with more advanced disease or have shorter disease-free survival.

### Does Extrahepatic Metastatic Disease Contraindicate Hepatic Resection?

Liver resection for patients with extrahepatic metastases is highly controversial. Several data did not show that extrahepatic disease was a significant prognostic factor. Despite lower survival rates observed in patients with extrahepatic disease at the time of hepatectomy, long-term survivors were observed. As a result, several authors believe that patients with controlled extrahepatic metastases (essentially bone metastases responsive to radiotherapy), hepatic resection is possible.

### Conclusions

The resection of liver metastases in breast cancer patients is a controversial therapeutical approach. No data of prospective randomized trials are available,

thus evidence for the potential role of hepatic metastasectomy rests on retrospective studies with a small number of patients. Technical advances have rendered hepatic metastasectomy safe and the long-term results of some studies possibly support the role of a surgical approach in selected patients.

“A small but very important subset of metastatic breast cancer patients, for example, those with a solitary metastatic lesion, can achieve complete remission and a long survival. A more aggressive and multi-disciplinary approach should be considered for these selected patients”.