

Palliative Surgical Treatment for Liver Metastases Arising From Breast Cancer

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Introduction: Patients with liver metastases arising from breast cancer presenting with jaundice have poor prognoses; most patients are not treated aggressively. However, we report an improvement in the quality of life (QOL) of the patient by inserting a biliary stent as palliative surgical treatment.

Case presentation: The patient was a 63-year-old woman. She had left breast cancer and had undergone total mastectomy and axillar lymph node dissection approximately 20 years ago. Thereafter, chemotherapy and hormonal therapy were continued for approximately 5 years. Sixteen years after surgery, the patient presented with hepatic failure; furthermore, total bilirubin (T-Bil) levels had increased to 5.5 mg/dL. Imaging revealed multiple liver metastases and dilatation of the intrahepatic bile duct. A biliary stent was placed, and treatment for obstructive jaundice was administered. After 3 months, the patient was able to maintain QOL without any increase in T-Bil levels.

Conclusion: Palliative surgical treatment via biliary stenting for the onset of obstructive jaundice caused by liver metastases arising from breast cancer can be useful for maintaining patient QOL.

Key words: Breast cancer – Metastasis – Palliative surgery – Quality of life – Stent – Obstructive jaundice

Liver metastases are said to be a poor prognostic factor of breast cancer.¹ Generally, patients with liver metastases may have obstructive jaundice caused by concomitant hepatic hilar lymph node involvement. When severe jaundice is observed in patients with liver metastases, anticancer drugs cannot be used.² Although there have been a few

reports on the use of arterial infusion and surgical therapy as local therapies, its utility has not been established. Furthermore, pharmacotherapy is often difficult to administer to patients with metastatic breast cancer and jaundice; therefore, there has been a shift toward palliative treatment and avoidance of aggressive treatment. Herein, we report the place-

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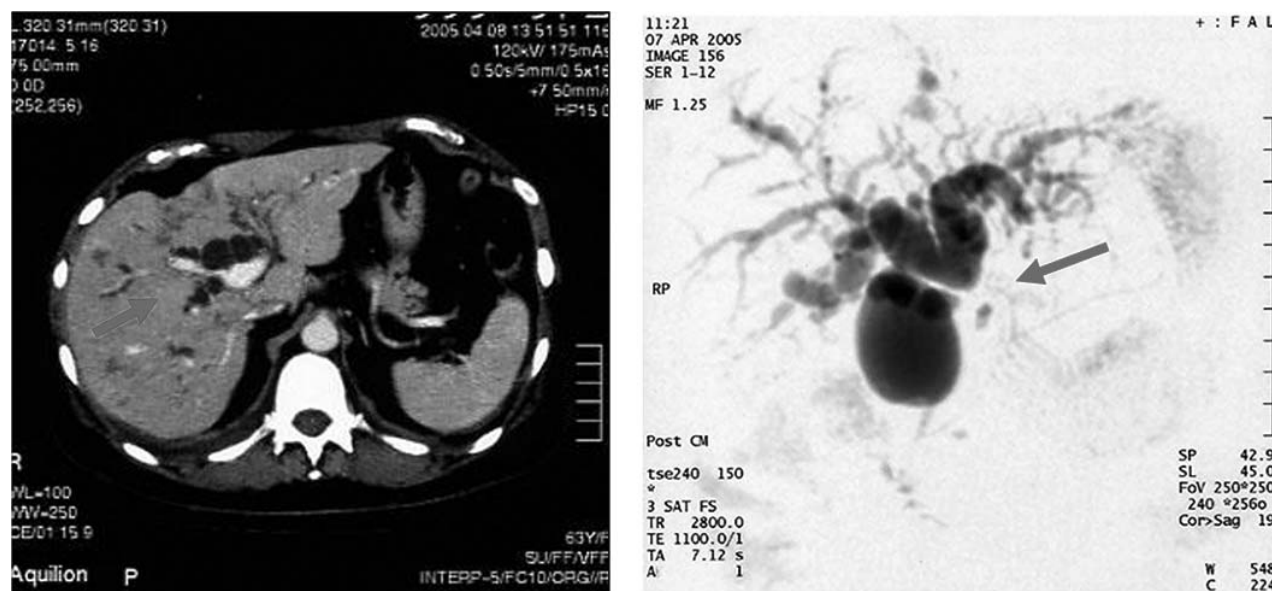


Fig. 1 Abdominal contrast-enhanced computed tomography and magnetic resonance cholangiopancreatography. The intrahepatic bile duct was dilated (+) in both lobes. The common bile duct was occluded (+) in the region below the triple confluence. Multiple liver metastases (+).

ment of a biliary stent as palliative surgical treatment for a patient with metastatic breast cancer with jaundice that resulted in improved quality of life (QOL).

Case Presentation

The patient was a 63-year-old woman who had undergone pectoralis muscle-sparing mastectomy and axillar lymph node dissection (Bt+Ax) for the treatment of breast cancer in the left breast 20 years ago. The pathologic diagnosis was of solid-tubular carcinoma T2 N2 M0 stage IIIA estrogen receptor (ER) + and progesterone receptor (PgR) –, and cyclophosphamide, methotrexate, and 5-fluorouracil therapy and tamoxifen therapy were administered. Eight years after surgery, bone scintigraphy revealed multiple bone metastases. Therefore, cyclophosphamide, epirubicin, and 5-fluorouracil therapy was administered as chemotherapy. However, 12 years after surgery, pulmonary metastases were observed. Hence, paclitaxel was administered. Sixteen years after surgery, liver metastases were observed. Aromatase inhibitors were administered as adjuvant therapy; however, 16 years and 3 months after the surgery, the onset of ascites, jaundice, and hepatic dysfunction was observed, and the patient was hospitalized. Abdominal contrast-enhanced computed tomography revealed the presence of multi-

ple liver metastases and lymphadenopathy along the hepatoduodenal ligament. Magnetic resonance cholangiopancreatography revealed dilatation of both lobes of the intrahepatic bile duct and occlusion below the triple confluence (Fig. 1). The patient was determined to have extramural obstruction caused by hilar lymph node involvement. Although she underwent radiotherapy, it was not effective, and total bilirubin (T-Bil) levels increased; therefore, a biliary stent was placed after performing endoscopic nasobiliary drainage (Fig. 2). Thirty days after stent placement, the patient was discharged with a T-Bil level of 2.2 mg/dL (Fig. 3).

Discussion and Conclusion

The number of patients found with early-stage breast cancer has increased because of the introduction of screening methods, such as mammography. Furthermore, breast cancer surgery has changed significantly, and approximately 60% of breast cancer surgeries have been replaced with breast-sparing surgery since 2005.³ Although improvements in prognoses have been observed because of early detection and early treatment, there are still some patients who experience recurrence and progression; these patients are often difficult to treat. Additionally, patients who experience repeat recurrence and metastases show resistance to

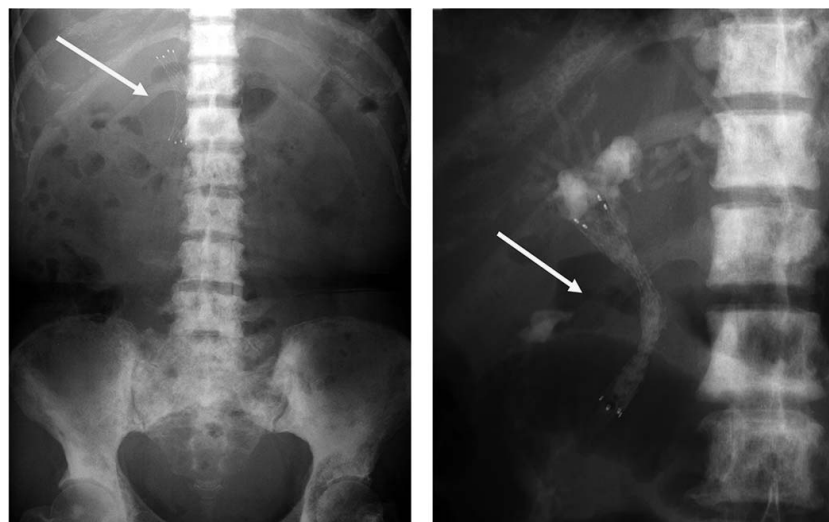


Fig. 2 Findings from biliary stent placement.

chemotherapy, radiotherapy, and hormonal therapy, and there is presently no means to perform multidisciplinary treatment.⁴ The present patient also developed lymph node metastases and metastases to other organs after each of the surgeries and eventually liver metastases, making it difficult to administer aggressive treatment.

Jaundice, as a symptom in patients with breast cancer, usually arises from metastatic diseases replacing liver parenchyma; however, there is also a group of patients whose jaundice is caused by obstruction of the extrahepatic bile ducts because of nodal metastases.⁵ It is important to recognize this group of patients, because in patients with normal liver function, relief from biliary obstruction using

surgical bypass or biliary stenting extends their survival to more than 1 year⁶ compared with those with liver metastases, whose mean survival is only approximately 1 month.⁷ Biliary stenting is a commonly used procedure for treating patients with pancreaticobiliary malignancies, metastatic disease, and external biliary compression by lymph nodes. This procedure is used both as a bridge to surgery in patients with resectable disease and for palliation in those with biliary obstruction caused by inoperative disease.

Alternatively, palliative care, including the use of mental support, for end-stage cancer has gained attention because it can be provided soon after cancer diagnosis. This is not an aggressive treatment and is rather the best form of supportive care, in which the focus is on how to live the remaining life more effectively.⁸ The aim is to not just control cancer pain but also to improve QOL, including allowing hospital discharge. If typical treatment strategies had been used, our patient would not have been able to be discharged from the hospital, and pain could only have been controlled while being hospitalized, meaning that the QOL would have remained unchanged. However, placing a biliary stent instead of performing percutaneous transhepatic cholangial drainage to control the jaundice ensured there was no external foreign object used, guaranteeing that there was no burden on the patient and her family and making it possible to improve QOL in home care even for a few months.

Breast cancer is the second most common form of cancer among women worldwide.⁹ The population with metastatic breast cancer is distributed from a

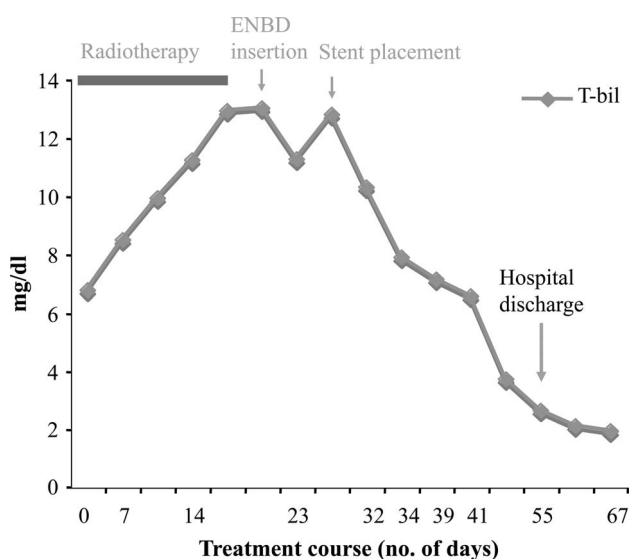


Fig. 3 Changes over time.

fairly young age up to the elderly. Despite this broad distribution, there is insufficient public knowledge regarding prognosis for patients with metastatic breast cancer.⁹ In most countries surveyed, the majority (52%–76%) believe that metastatic breast cancer is curable. This may be partially because the life expectancy of the patient after the diagnosis of metastatic breast cancer is longer than that of other types of cancers. Information regarding the development of new drugs tends to promote expectations of a cure. Despite the prevalence of Her2-positive breast cancers, improvement in the overall survival of metastatic breast cancer has been small, and metastatic breast cancer is still a difficult disease to cure.¹⁰ Because of these factors, most metastatic breast cancer patients may not think about end-of-life care until the last moment.

Ozanne *et al*¹¹ reported that 75% of women with metastatic breast cancer had gathered information about advance directive and 66% of them had actually written an advance directive. However, only 14% of their care providers were aware of the presence of an advance directive. Patients were more than 3 times more likely to talk about and share written plans with friends and family than with their care providers. Whether this tendency is specific to metastatic breast cancer remains unclear.

In the future, the use of adjuvant therapy for breast cancer treatment will progress further, and patients with jaundice caused by hepatic metastases or hepatic hilar lymph node metastases are expected to increase. Although aggressive treatment is difficult, placing a biliary stent as a palliative surgical treatment can be a useful measure if QOL, including discharge and home care, is to be considered.

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