A 36-year-old woman presented to our hospital with a huge tumor, measuring 11 cm in diameter, in her left breast. She had a past history of preoperative systemic chemotherapy and breast-conserving surgery for her left breast cancer 6 months before in another hospital. The tumor fixed stiffly on the chest wall, and invasion to the pectoral muscle was suspected. Because computed tomography showed a small metastatic nodule in the left lung, she initially received systemic chemotherapy. After six cycles of anthracycline treatment, the lung nodule disappeared, while the locoregional tumor remained unchanged (Fig. 1A and B, red arrows). Surgery to reduce the tumor burden and improve her quality of life was proposed, and the patient underwent tumorectomy with autologous latissimus dorsi musculocutaneous flap reconstruction.

Macroscopic examination of the resected specimen revealed a large, expanding solid mass (Fig. 2, green arrows) with cystic change indicating tumor necrosis (Fig. 2, blue arrow). Pathologically, the tumor consisted of high-grade invasive ductal carcinoma with massive lymphatic invasion. Because these findings were consistent with those of the primary tumor resected in the previous hospital, the diagnosis of recurrent breast cancer was confirmed. Pathological examination also showed that the tumor was very close to, but not invading, the major pectoral muscle (Fig. 3, black arrows), and most of the tumor cells were viable (chemotherapeutic effect; Grade 0).

Two months after the second surgery, locoregional recurrence as well as lung metastasis were detected, and the patient underwent oral fluoropyrimidine S-1 monotherapy.