

Supplementary data.

S1. Macroscopic image description and Microscopic preparations

S1.1. The study on T/N; Macroscopic image analysis: An unmarked right mammary gland, with the contents of the axillary fossa (measuring 24 x 22 x 5.5 cm; 1768 g) covered with an ellipse of skin (21 x 18 cm), was obtained. An ulcerated bump (10.5 x 7.5 x 5.0 cm), highlighting and infiltrating the skin was identified. Macroscopic margins were as follows: upper margin of 2.5 cm, lower margin of 11.0 cm, a margin on the chest side of 1.5 cm, a margin from the armpit side of 9.0 cm, and a margin from the middle of 6.0 cm. Inside the axillary cavity, a fat-shaped package of axillary lymph nodes measuring 7.5 x 5.5 x 3.5 cm was identified. On the surface of the skin, an ulcer (with a diameter of 1 cm) was found.

Microscopic preparations (T/N) were composed of:

- 1) Tumor with skin
- 2) Tumor with margin from the chest side
- 3) Tumor from the central part
- 4) Other parts of the tumor
- 5) Lower quadrants outside the tumor
- 6) Upper quadrants outside the tumor
- 7) Lymph node package starting from the top
- 8) Nipple from the side of the tumor

S1.2. The study on relapse (M); Macroscopic analysis: A mammary gland (28.5 x 23.0 x 8.00 cm; 1729.0 g) and the contents of the axillary fossa (12.5 x 5.0 x 3.0 cm) were obtained for the study. On the cross-sections, the adipose fibrous gland, without any obvious tumors, was identified. In the inferior medial quadrant, fibrous tissue formed two star-shaped structures. In the inferior outer quadrant, irregular, whitish lesions (3.5 x 3.0 cm) and puffs of whitish tissues closer to the armpit were observed. In the armpit itself, two saddle-shaped well-demarcated tumors measuring 3.5 x 3.0 x 3.5 cm and 2.0 x 1.5 x 2.5 cm were found. Individual quadrants were examined serially by taking numerous sections and preparing microscopic slides.

The following microscopic preparations were prepared from the relapse (M):

- 1) Inferior medial quadrant
- 2) Inferior outer quadrant
- 3) Upper medial quadrant
- 4) Upper outer quadrant
- 5) Borders of the outer quadrants
- 6) Subpapillary region
- 7) Nipple
- 8) Fatty tumors of the armpit
- 9) Other lymph nodes of the axillary fossa
- 10) Separately lying skin fragment with infiltration

S2. Supplementary Figures: The whole slides images.

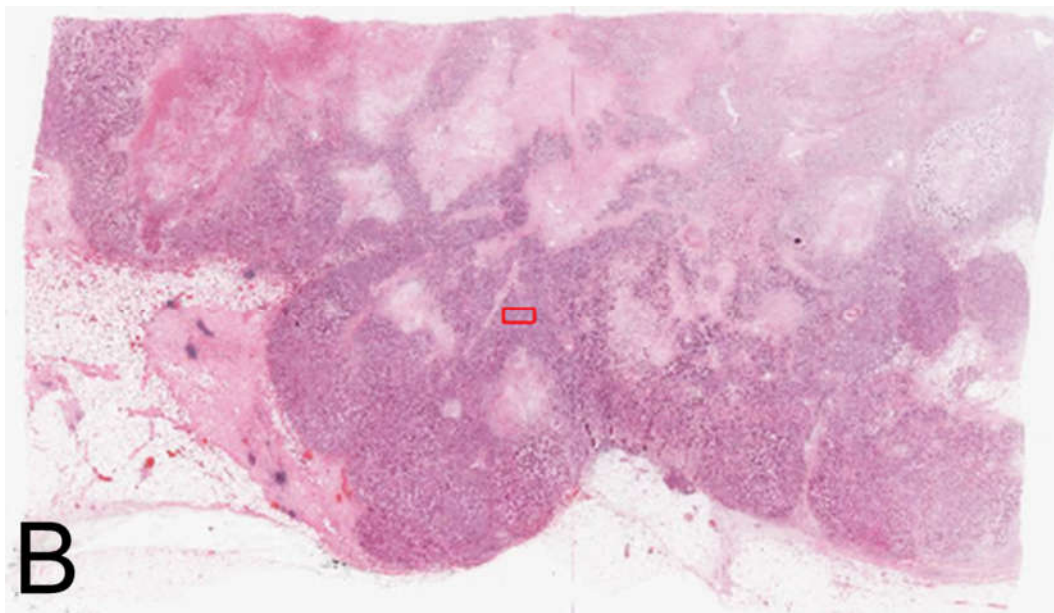
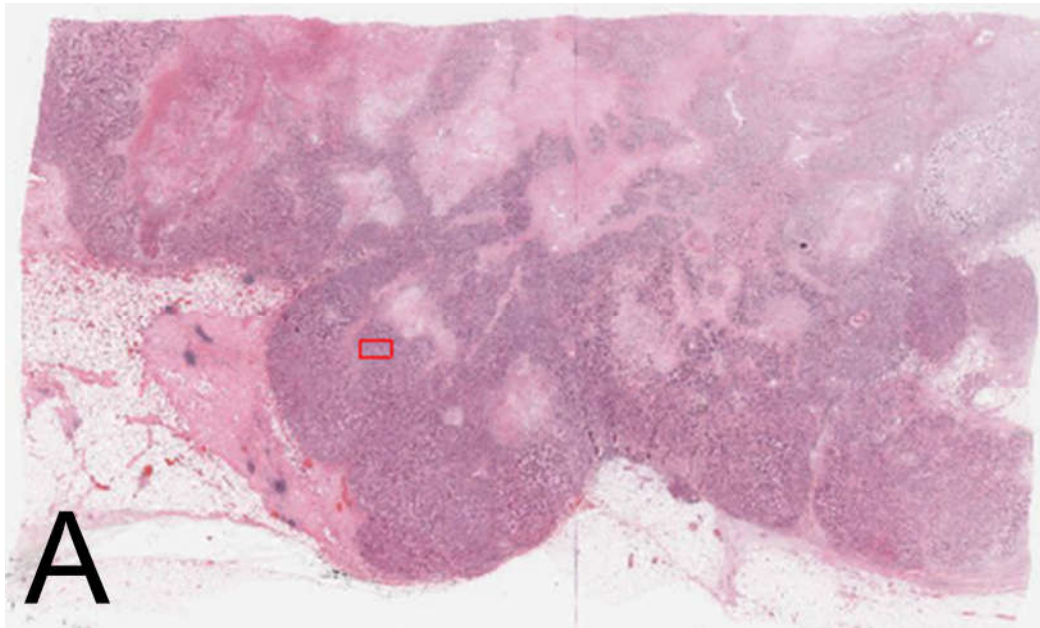
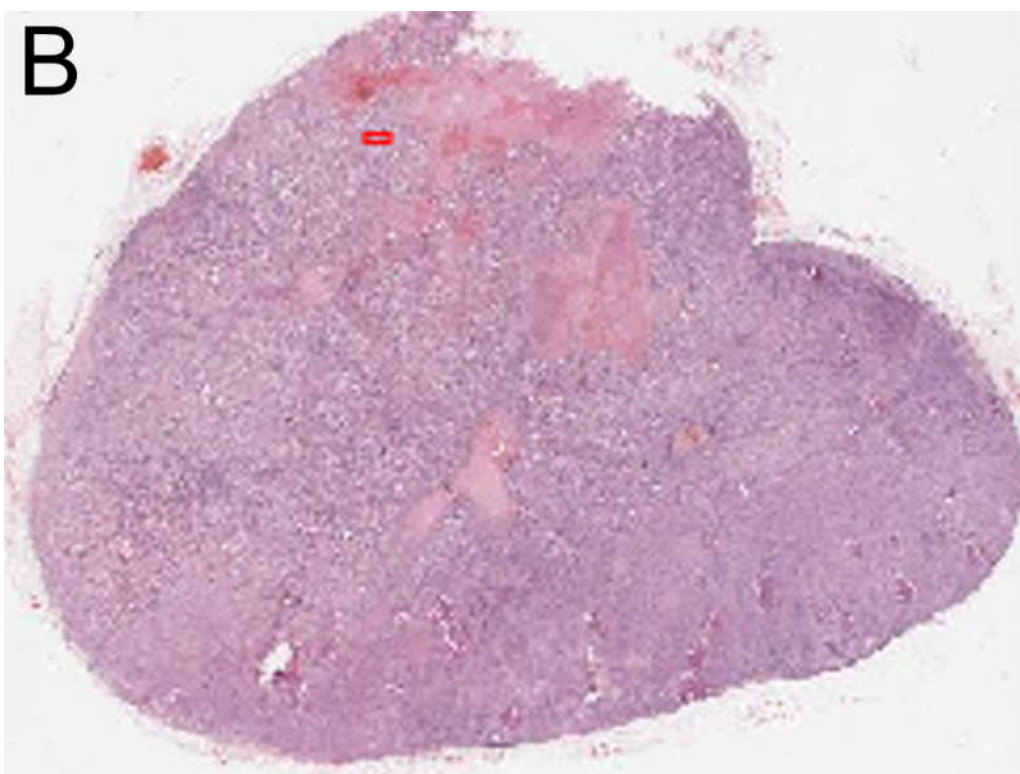
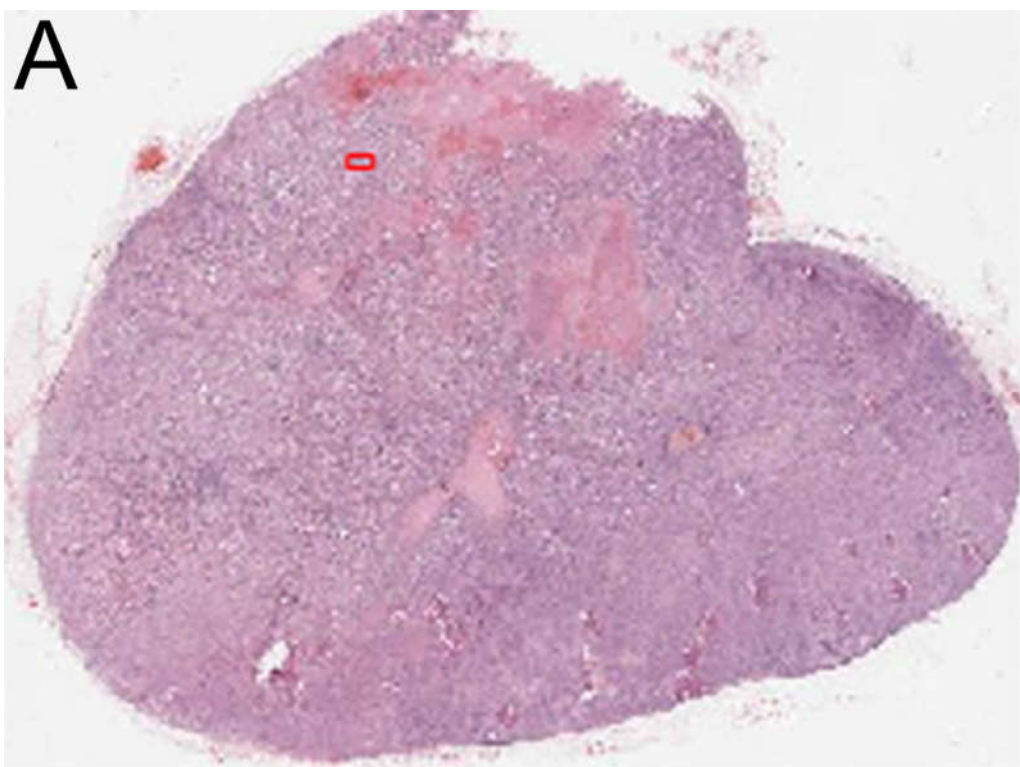


Figure S1. The whole slides images H&E staining of the primary cancer lesion (T). Entotic hotspots marked using red rectangles corresponding to Fig. 2 A,B.



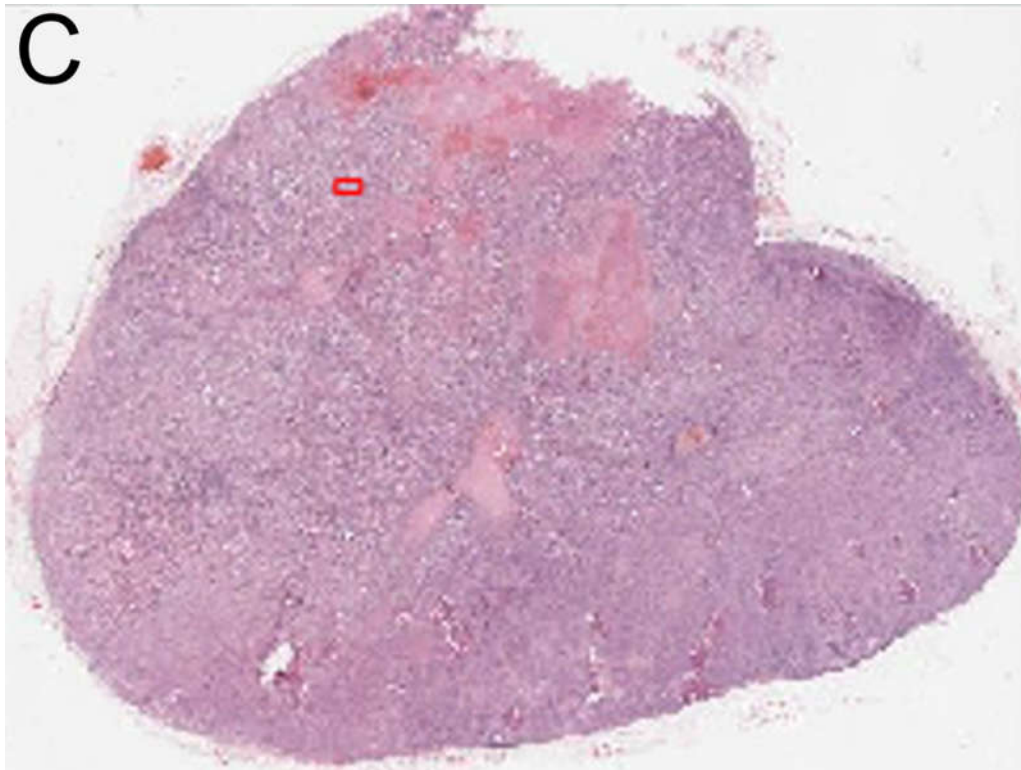
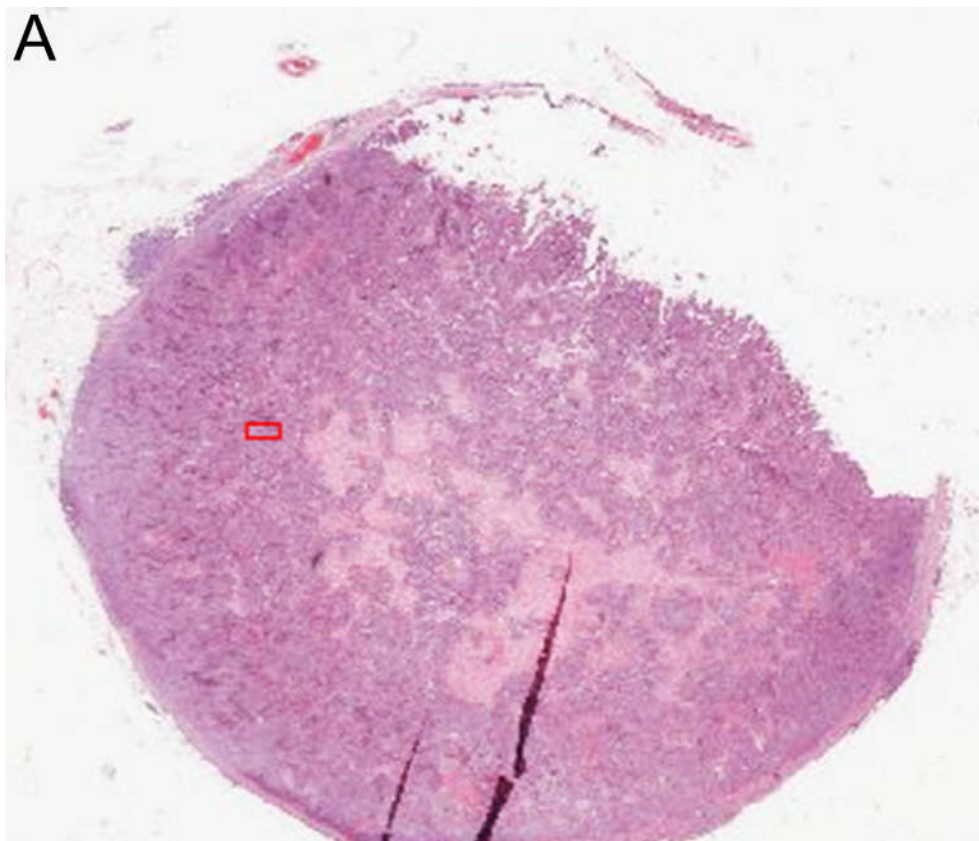


Figure S2. The whole slides images H&E staining of H&E staining of the lymph node metastasis (N). Entotic hotspots marked using red rectangles corresponding to Fig. 3 A,B,C. Scale bar 2 mm.



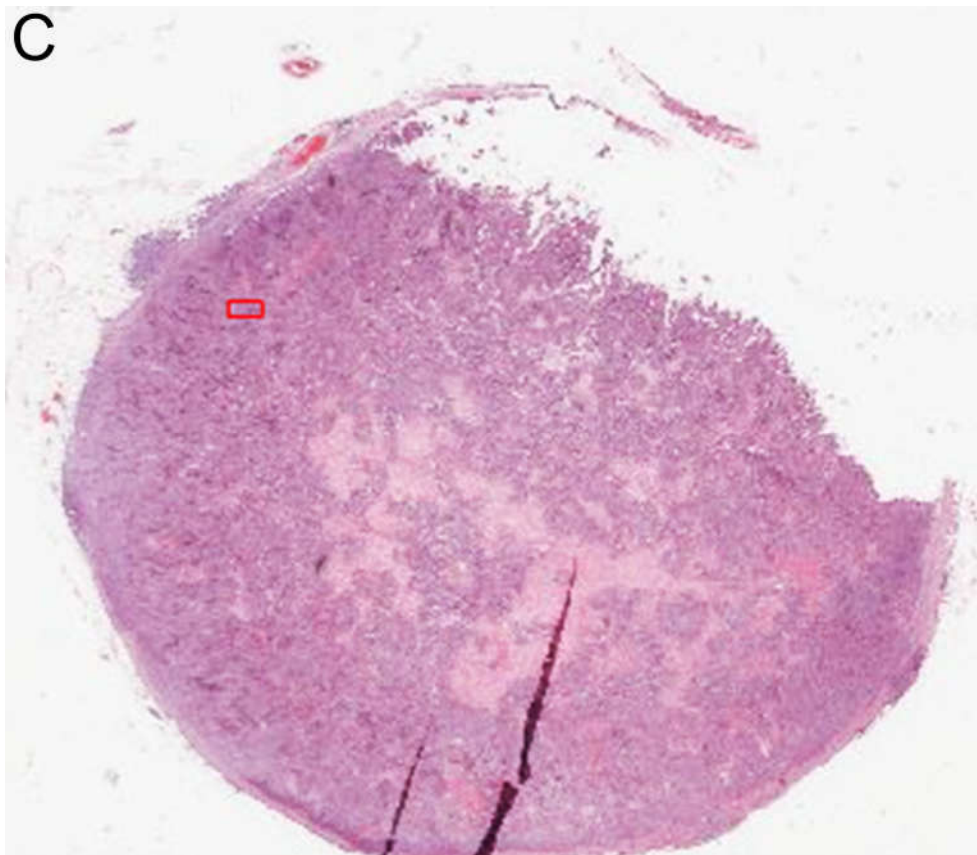
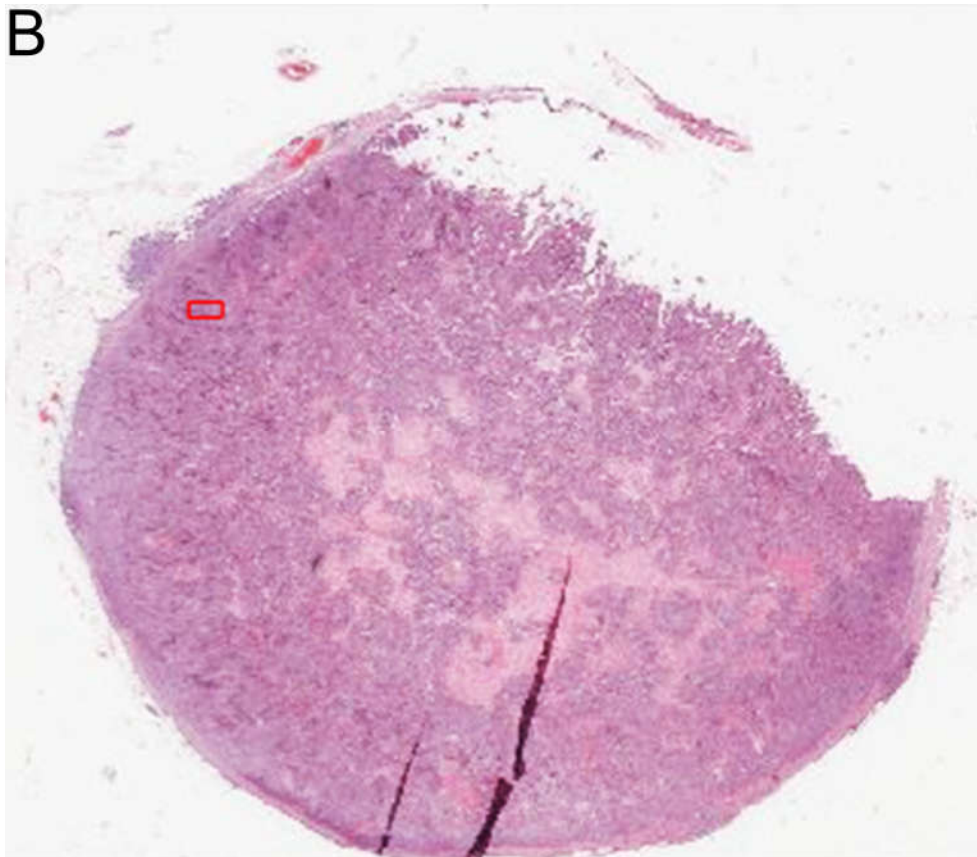


Figure S3. The whole slides images H&E staining of the contralateral axillary lymph node far metastasis (M). Entotic hotspots marked using red rectangles corresponding to Fig. 4 A,B,C.