

# A Case of Delayed Metastatic Duct Carcinoma of Breast in Distant Lymph Node 10 Years Later

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## Description

53-year-old female, breast carcinoma, left, S/P modified radical mastectomy ten years ago (in 2005)

She also received courses of chemotherapy until 2006. June 11<sup>th</sup>, 2015: Enlargement of bilateral inguinal lymph nodes, and more obvious over the right side, measuring up to 1.31 × 1.30 × 0.67 in dimensions. No mass or nodule is found over the rest body parts (Figure 1).

## Cytology Report

Lymph node, groin, right, fine needle aspiration cytology was

Other findings: multiple lymph nodes over bilateral groin  
right groin: 1.3\*0.67\*1.31cm, with cortex thickness (4.1mm), FNAC (+Ve.)  
(\*\*)  
, 0.86\*0.43cm, 0.61\*0.38cm,  
left groin: 0.64\*0.52cm, 0.61\*0.38cm, 0.86\*0.43cm  
FNAC: Yes, 0.01 cc bloody from right groin lymph node

Figure 1: Copy of description of positive physical examination.

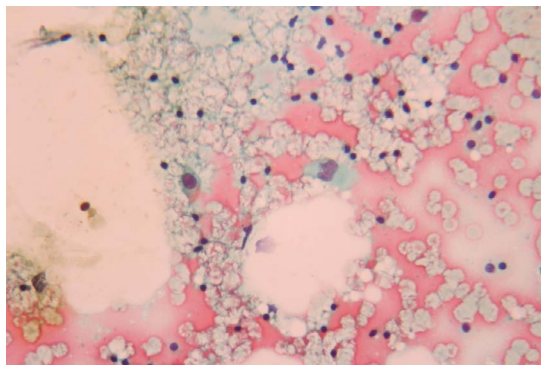


Figure 2: Two large atypical cells are seen (Pap stain, 400X).

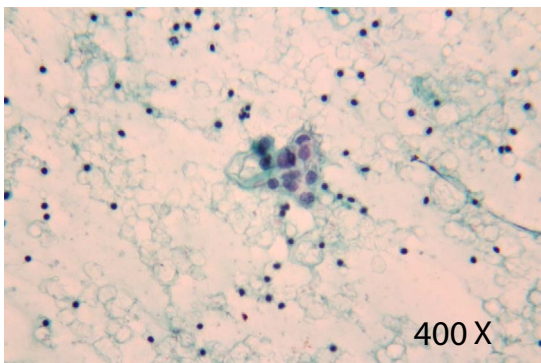


Figure 3: A cluster of cohesive atypical cells in the background with small lymphocytes (Pap stain, 400X).

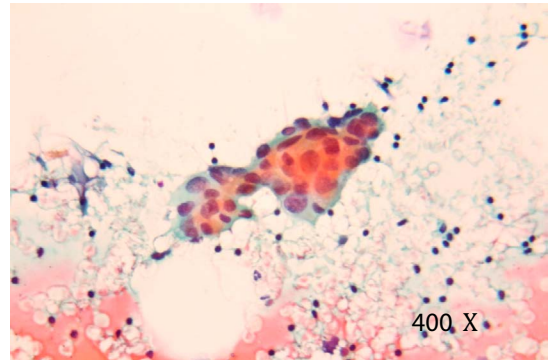


Figure 4: A large cluster of cohesive neoplastic epithelial cells (Pap stain, 400X).

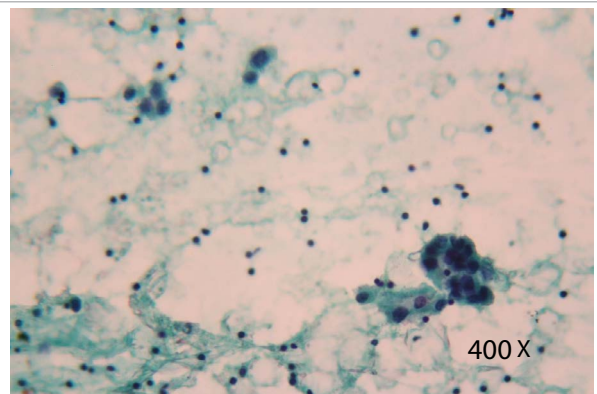


Figure 5: A few clusters of neoplastic epithelial cells with hyperchromatic nuclei (Pap stain, 400X).

positive for malignancy, in favor of metastatic carcinoma (Figures 2-5).

## Immunocytochemical (ICC) Study

Direct immunostaining on stained slides S/P Papanicolaou stain (Figures 6).

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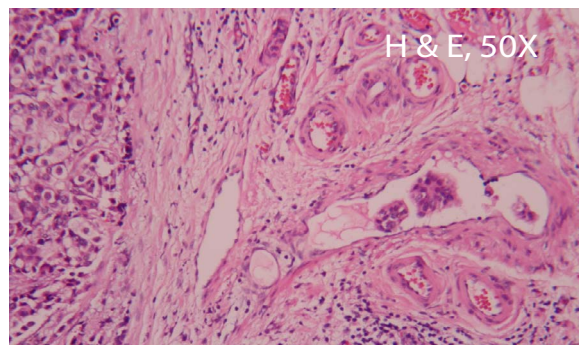
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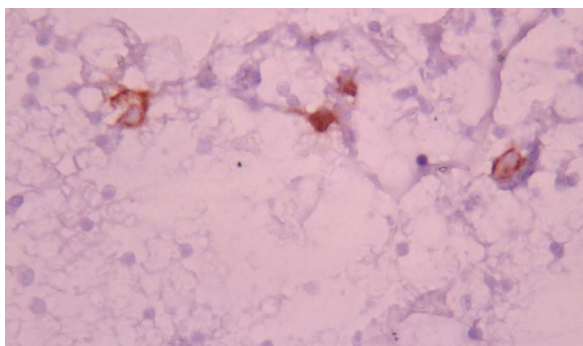




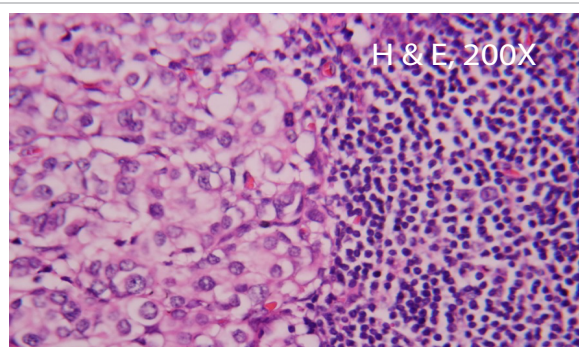
**Figure 6:** Direct immunostaining on stained and uncovered slides S/P Papanicolaou stain.



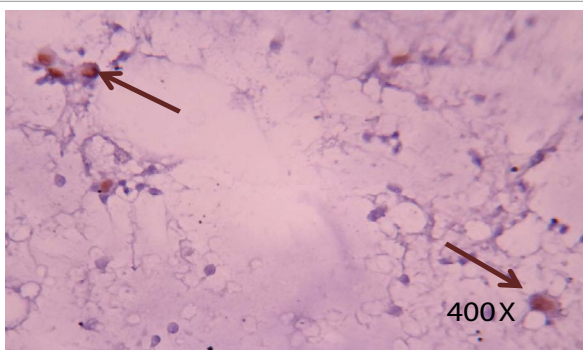
**Figure 10:** Tumor emboli can be found in a few blood vessel lumens.



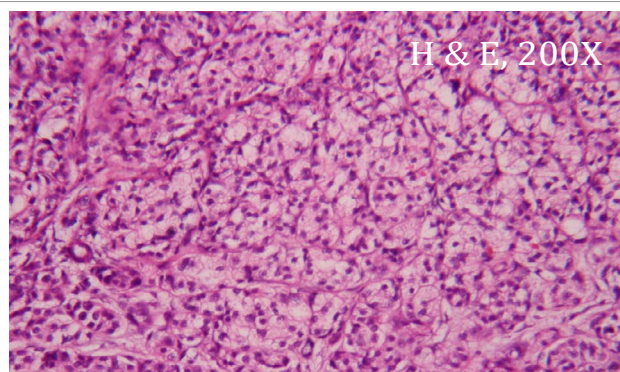
**Figure 7:** Immunocytochemical (ICC) study: Cytokeratin (AE1/AE3): + (400X).



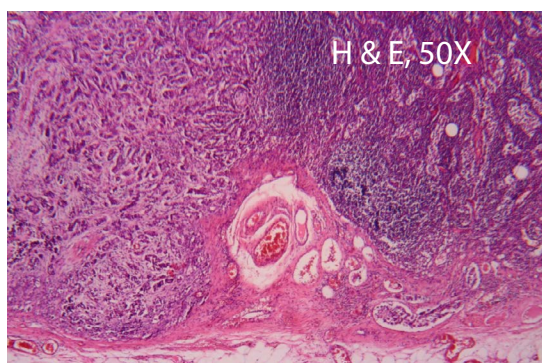
**Figure 11:** Uneven distribution of metastatic nests over one half of the lymph node.



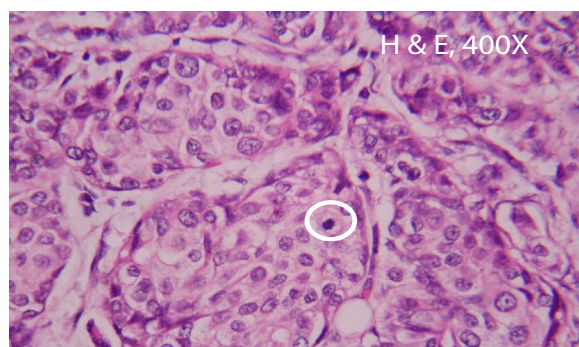
**Figure 8:** ICC study: estrogen receptor (ER): + (arrows) (400X).



**Figure 12:** Focally clear cytoplasm and solid growth pattern.

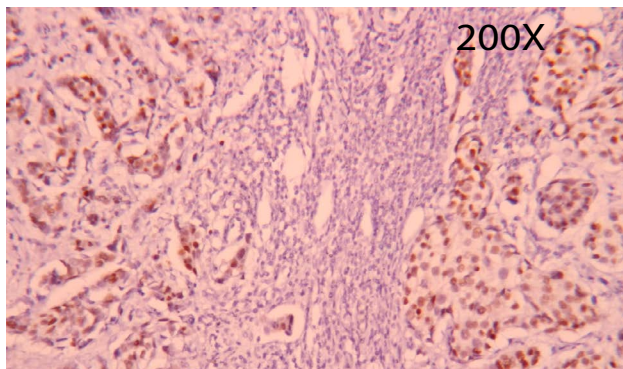


**Figure 9:** Tumor emboli can be found in a few blood vessel lumens.

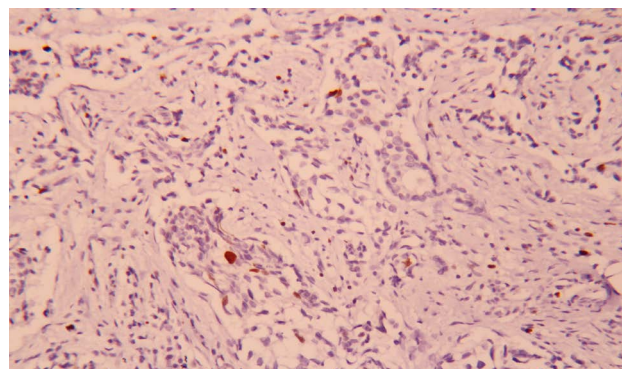


**Figure 13:** Moderate nuclear pleomorphism, and no brisk mitotic figures (circle).

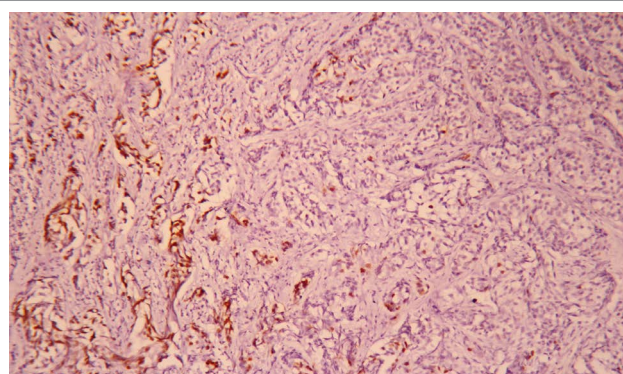




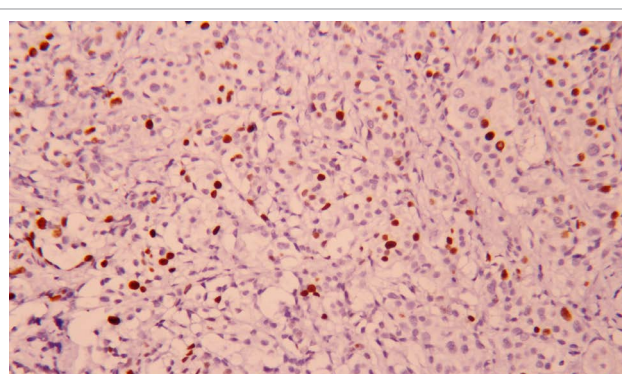
**Figure 14:** Immunohistochemical (IHC) study: ER: +



**Figure 16:** Ki-67 proliferation index: up to 10% at PR positive area (200X).



**Figure 15:** IHC study: Intense positive PR immunostaining cancer cells over left side, and negative PR immunostaining cancer cells over right side of the picture (100X).



**Figure 17:** Ki-67 proliferation index: 20% at PR negative area (200X).

### Revised Cytology Report After ICC Study

Lymph node, groin, right, fine needle aspiration and ICC stain --- Metastatic carcinoma, in favor of breast origin. Cytokeratin (AE1/AE3):+, ER:+ (Figure 7-8)

### Anatomical Diagnosis

It was carried out on June 24<sup>th</sup>, 2015. Lymph nodes, inguinal, right,

biopsy showed metastatic ductal carcinoma, breast in origin (one positive lymph node and one smaller negative lymph node).

### Results of Immunohistochemical (IHC) Studies

ER: + (80%, strong to moderate)

PR: + (20%, strong to moderate)

HER 2/neu: negative (0~1+)

Ki-67 proliferation index: up to 20%