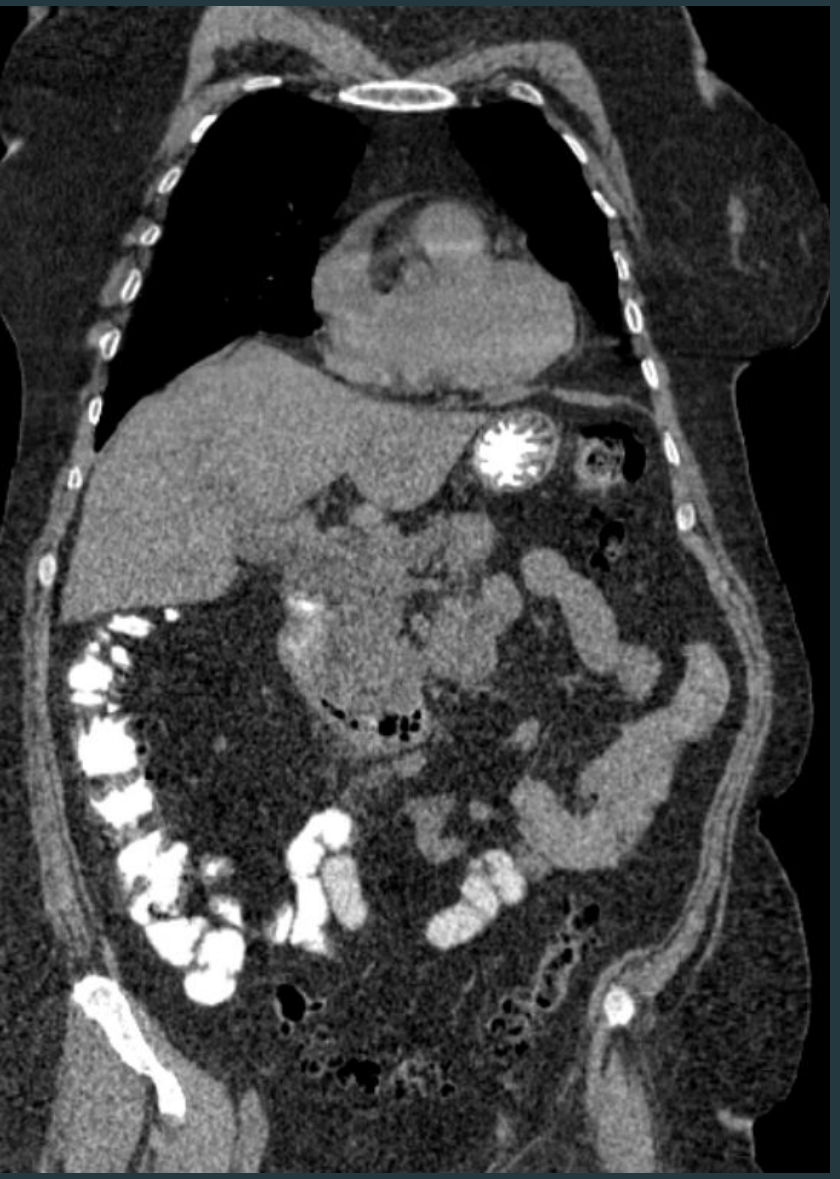
Synchronous invasive breast carcinoma with pancreatic and pulmonary neuroendocrine tumors is a rare occurrence

Radiologic manifestations help to identify the features for a correct diagnosis.

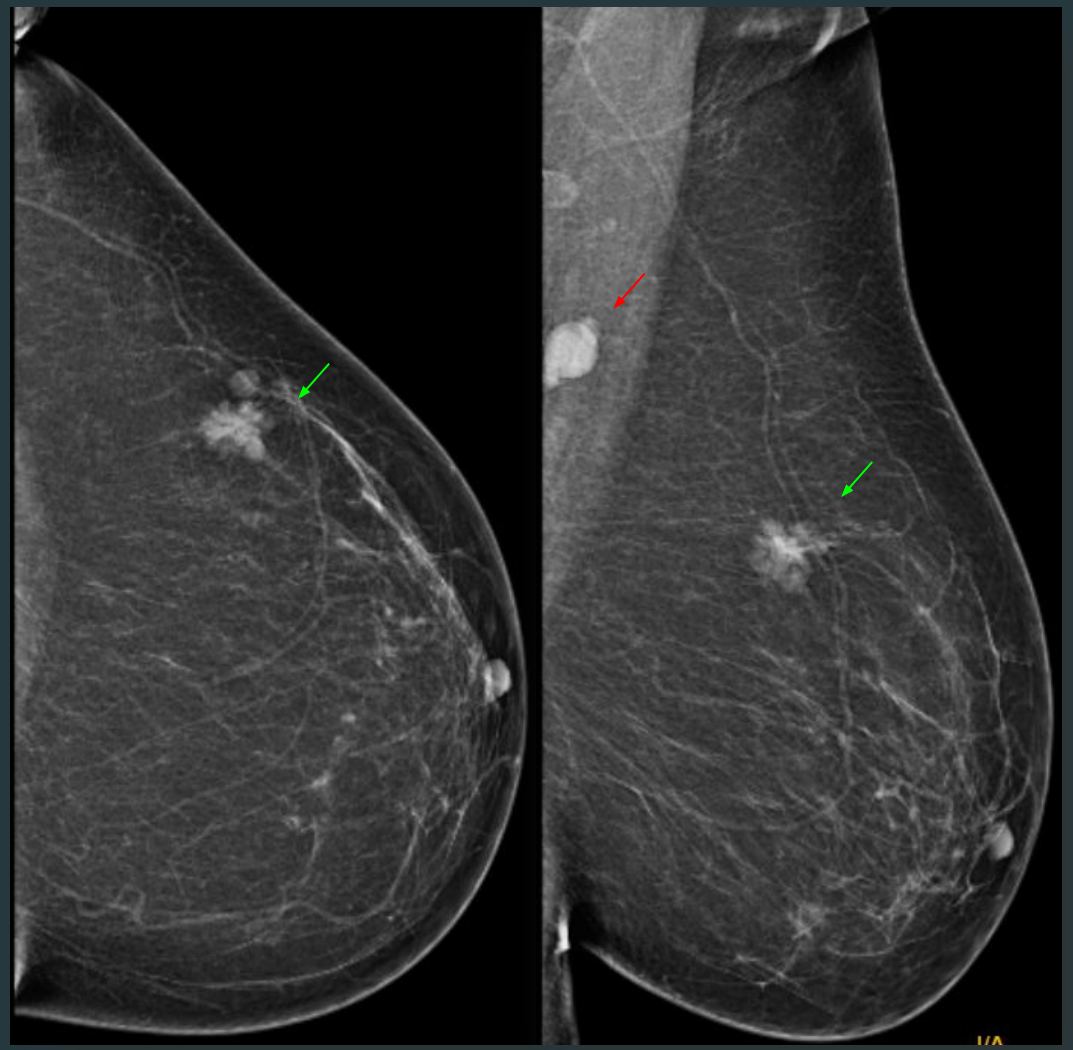
SYNCHRONOUS OF BREAST CANCER AND NEUROENDOCRINE TUMORS

CLINICAL HISTORY



A 66-year-old woman was examined at our institution with a palpable mass in her left breast. She had a renal carcinoma in the left side 3 years ago.

She had undergone a partial nephrectomy 2 years ago. Follow-up CT revealed a pancreatic mass in the tail and body along with a nodular lung image.

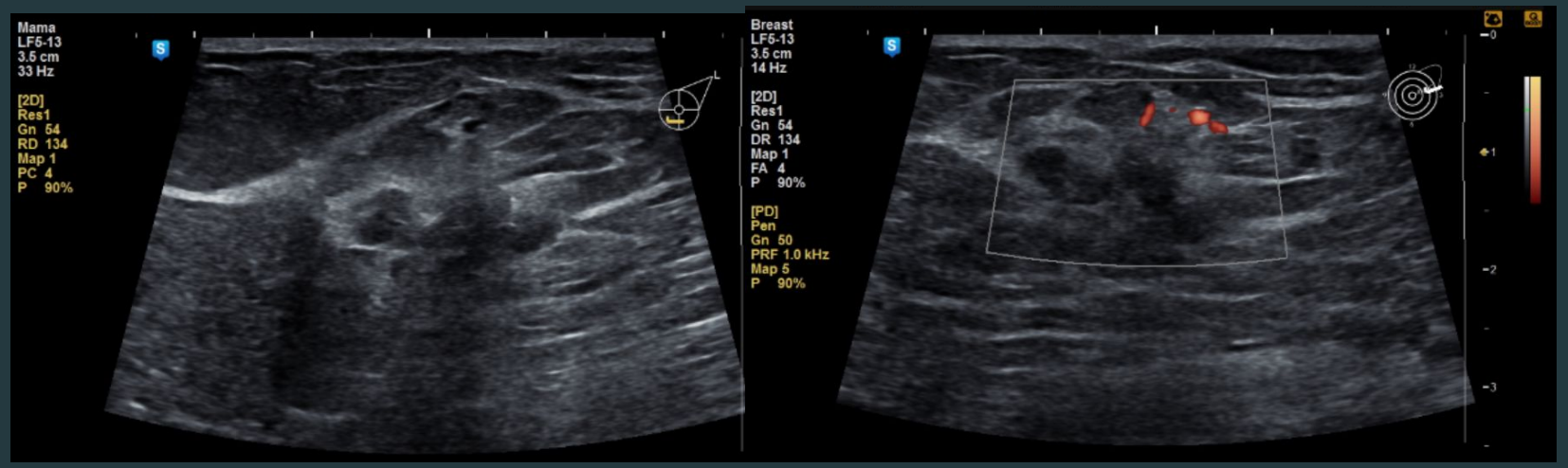


The mammogram shows a non-circumscribed asymmetry in the UOE of the left breast (green arrow). A dense, altered lymph node can be seen in the axilla (red arrow).

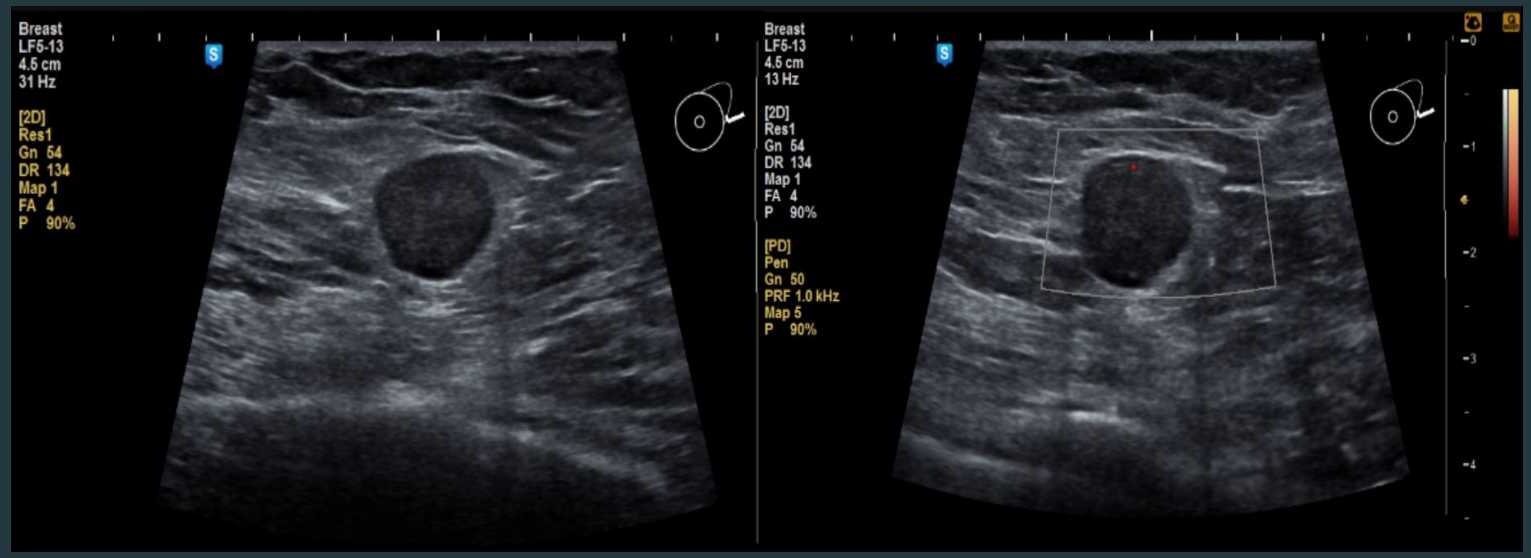
The discovery of a synchronous malignancy is very rare. Invasive breast cancer is a heterogeneous disease and can be classified according to histologic type and molecular diversity.

The CT shows: Hypodense nodular image with irregular border in the left breast (green arrow)
Axillary lymphadenopathy is visible (red arrow).

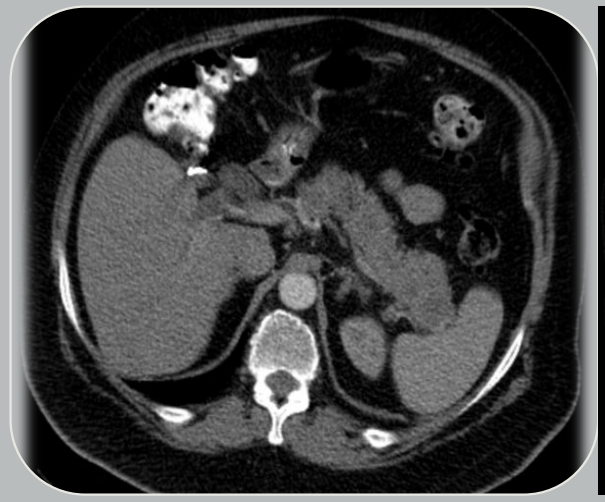
Ultrasound-guided breast and axillary biopsy revealed a poorly differentiated invasive NST carcinoma with axillary metastasis.



The ultrasound showed an irregular solid nodule in the 2 o'clock position with positive vascularization and a size of 19x13 mm.



Lymph nodes with altered echostructure.



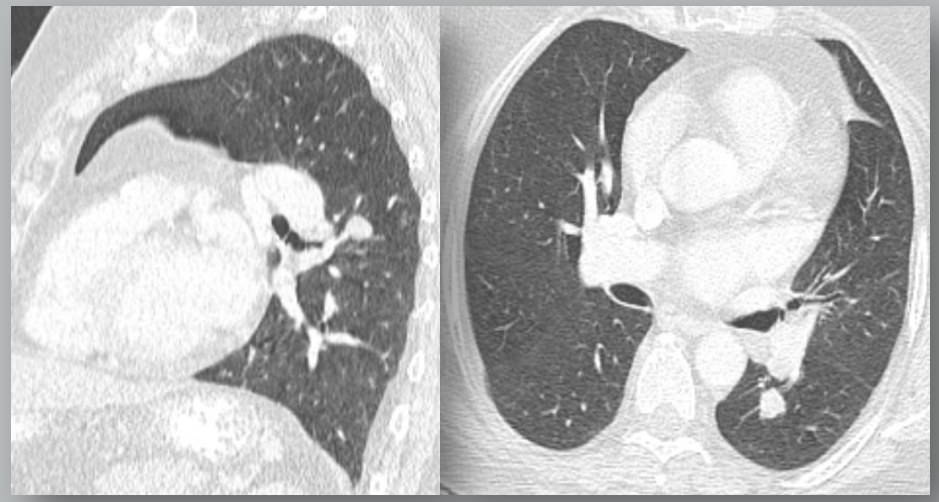
Two lesions with low density, poorly defined margins and low contrast enhancement are seen on the pancreatic body and tail.

Histomorphology and immunohistochemical examination of the neuroendocrine markers form the basis for the final diagnosis. The association with breast cancer is rare.

The combined approach with clinical assessment and radiologic images helps in the diagnosis.

Accurate diagnosis of neuroendocrine tumours remains a challenge due to their low incidence, requiring multidisciplinary methods

Further studies are needed to evaluate this unique combination of endocrine and non-endocrine neoplasia.



Pulmonary nodule with spiculated margins in the upper segment of the left lower lobe.