Granular cell tumor of the breast: a breast malignancy mimicker

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Granular cell tumors are soft tissue neoplasms that can arise from virtually any body site. They are thought to arise from Schwann cells of the peripheral nervous system. The overwhelming majority are benign, with only 1-2% of cases being malignant. Granular cell tumors of the breast can often mimic breast malignancy.

A 62-year-old female with past medical history of hypertension and prior tobacco use had abnormal screening mammography. Family history was positive for breast malignancy in 2 sisters and a maternal first cousin. Prior mammography was unremarkable, aside from one year prior which revealed a concerning 6 mm nodule in the upper outer posterior left breast. Follow up ultrasound was consistent with a benign cyst.

Mammography showed an irregular hypoechoic mass with a surrounding hyperechoic halo in the left breast measuring 10 x 6 x10 mm with internal vascularity. Core needle biopsy revealed a granular cell tumor. Immunohistochemistry was positive for s100 and CD68. The patient underwent a left breast lumpectomy and negative margins were achieved. Her post-operative course was uneventful. She continues to follow with oncology and is arranged for ongoing surveillance.

Granular cell tumors of the breast can present similarly to breast malignancy on physical exam, mammogram, and ultrasound. It is important to include granular cell tumors in the differential diagnosis of a breast mass to prevent unnecessary surgical intervention for what was thought to be a breast malignancy and is later found to be a granular cell tumor. The mainstay of treatment for granular cell tumor of the breast is local resection with confirmed negative margins, which is considered curative.