

Rare Manifestations of Male Breast Cancer

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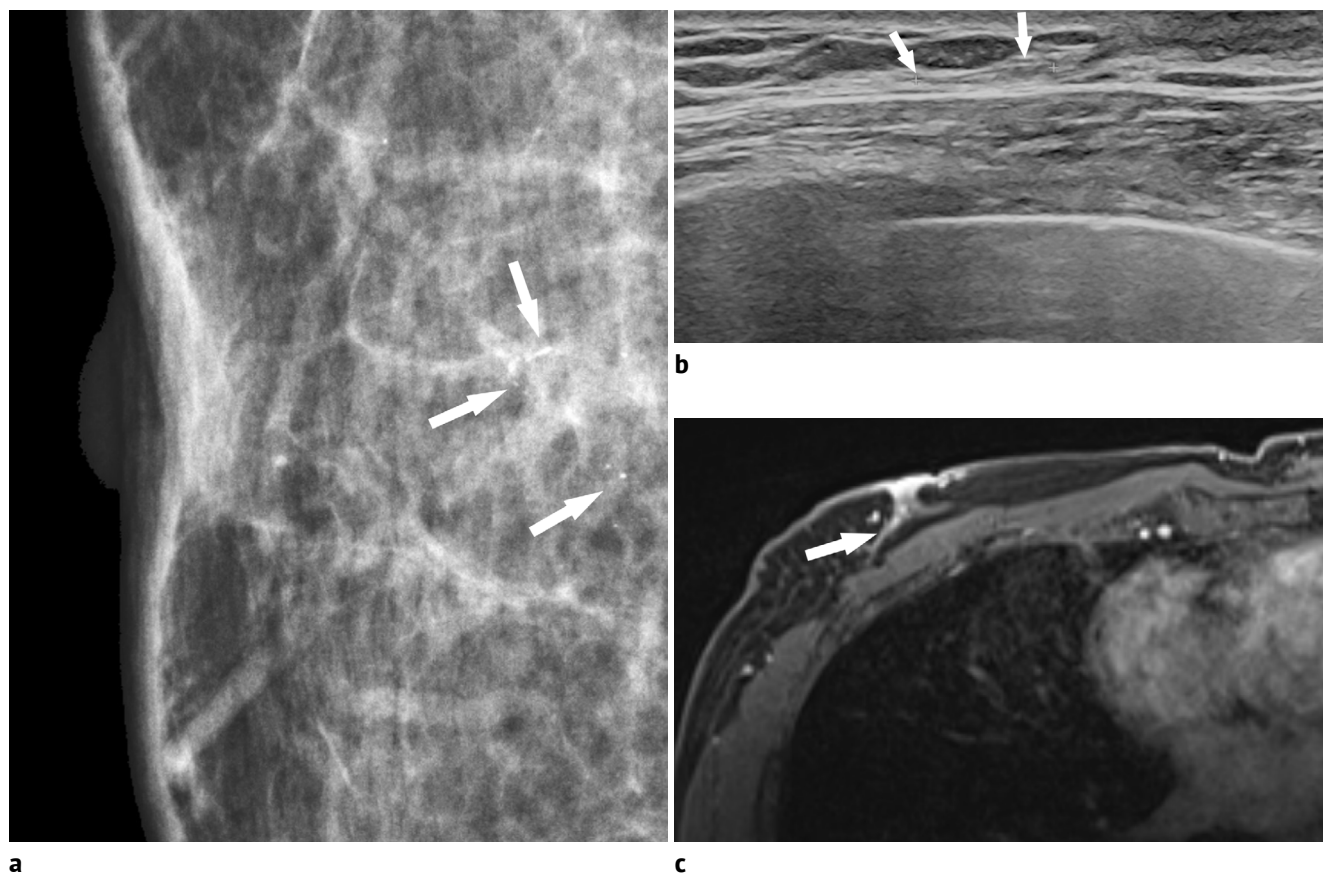


Fig. 1. A 72-year-old man with incidentally detected calcification in the right breast during preoperative imaging workup for invasive ductal carcinoma in the left breast. **a.** Mediolateral oblique mammogram of the right breast shows grouped coarse heterogenous and linear calcifications in the right subareolar area. **b.** Ultrasound shows mild ductal dilatation at the 9 o'clock position of the right breast. **c.** MRI shows linear enhancement at the 9 o'clock position of the right breast.

Case 1. A 72-year-old man presented with a palpable lump confirmed as invasive ductal carcinoma by excisional biopsy. He reported a family history of breast cancer in his older sister, younger sister, aunt, and cousin. A BRCA gene mutation test was positive. For preoperative work up, mammography, ultrasound (US), and MRI were

performed (Fig. 1). The patient underwent bilateral mastectomies. No residual cancer remained in the left breast, but low-grade ductal carcinoma in situ (DCIS) was confirmed in the right breast.

Case 2. A 39-year-old man complained of bloody nipple discharge for over 1 year. Diagnostic mammography and US were performed (Fig. 2).

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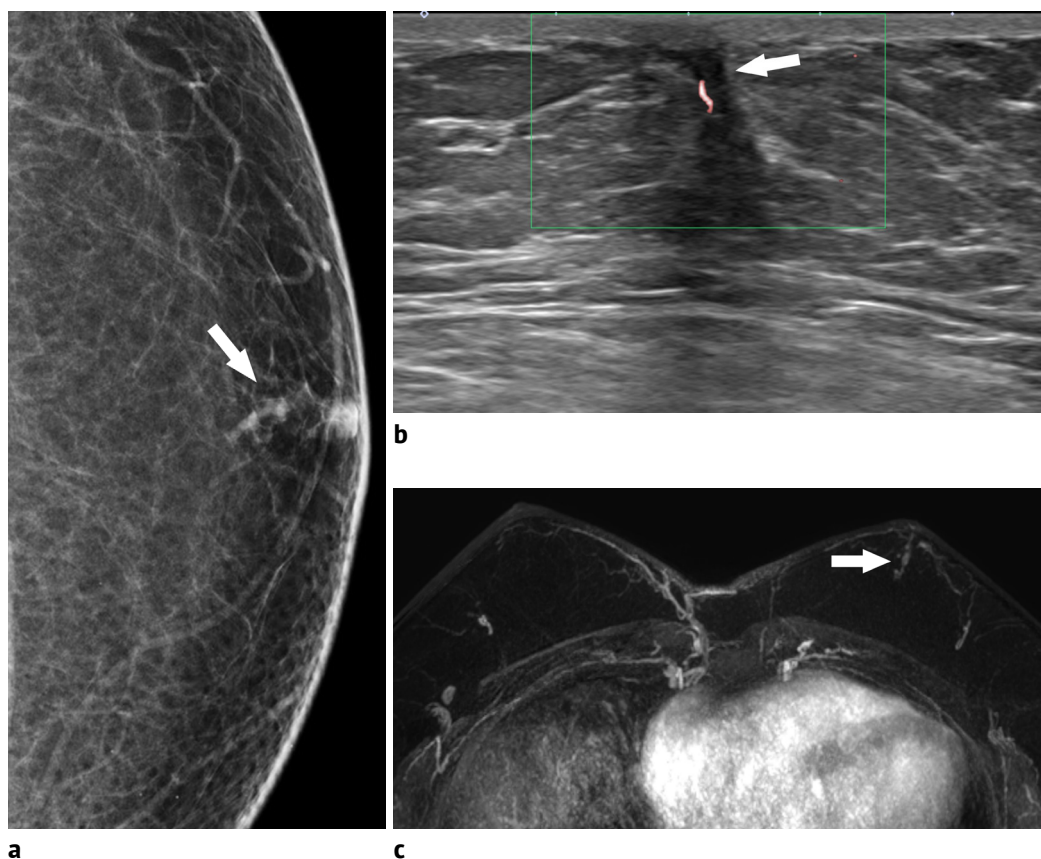


Fig. 2. A 39-year-old man with bloody nipple discharge from the left breast. **a.** Craniocaudal mammogram of the left breast shows asymmetry in the left subareolar area. **b.** Ultrasound shows mild ductal dilatation with increased vascularity in the left subareolar area. **c.** MRI shows a 1.2-cm linear heterogeneous non-mass enhancement in the left subareolar area.

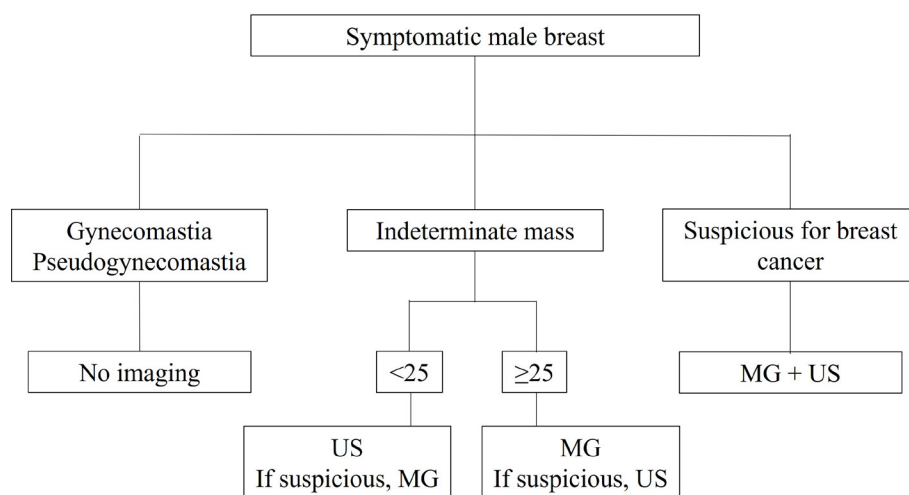


Fig. 3. Flowchart for evaluating symptomatic male breast, referring to ACR Appropriateness Criteria® Evaluation of the Symptomatic Male Breast.

A US-guided 14-gauge core needle biopsy was performed, confirming DCIS. Subsequent MRI showed a 1.2-cm linear heterogeneous nonmass enhancement in the left subareolar area. Total

mastectomy was performed, and histopathologic analysis revealed invasive ductal carcinoma in the left breast. He reported a family history of breast cancer in his aunt. He also had a positive BRCA

gene mutation.

According to the ACR Appropriateness Criteria® Evaluation of the Symptomatic Male Breast, imaging is not usually recommended for men who present clinical findings compatible with gynecomastia or pseudogynecomastia. If an indeterminate breast lump is identified, mammography should be the first imaging examination for men older than 25 years; however, US is recommended for younger men. Irrespective of the patient's age, mammography and US are advised if physical examination raises suspicions for male breast cancer (1, 2) (Fig. 3).

According to Nicosia et al., bloody nipple discharge in male patients should always be investigated—even in the absence of radiological abnormalities—using histological studies (3). Moreover, unlike in women, any calcifications in a male patient (except for typical dermal or vascular calcifications) should raise suspicion for malignancy. Compared to those observed in women, men exhibit fewer, coarser, more widely distributed, and less commonly linear calcifications (4). MRI can facilitate pre-treatment planning for certain male breast cancers, especially when evaluating the

disease extent and identifying contralateral tumors (5).

References

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