

Images in Clinical Tropical Medicine

An Unusual Cause of Breast Lump: Isolated Tuberculosis of the Breast

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Abstract. A 60-year-old woman presented with a painful lump of 4 months duration in her right breast. She denied any history of breast trauma or family history of breast cancer. Physical examination detected a firm, tender mass in the upper inner quadrant of her right breast without an associated sinus tract. Cytology from fine-needle aspiration of the swelling showed epithelioid cells, lymphohistocytic aggregates, and necrosis. Diagnosis was confirmed by the identification of acid-fast bacilli in tissue sections using Ziehl-Neelsen staining.

A 60-year-old woman presented with a painful lump of 4 months duration in her right breast. She denied any history of breast trauma or family history of breast cancer. There was no history of weight loss. Physical examination detected a firm, tender mass in the upper inner quadrant of her right breast without any associated sinus tract (Figure 1A). No palpable ipsilateral axillary lymph nodes were found. Routine investigations revealed a marginally elevated erythrocyte sedimentation rate (24 mm/hr). Plain radiograph of the chest was unremarkable. A right breast ultrasound revealed the lesion having irregular margins and central necrotic areas with debris (Figure 1B). The result of a tuberculin skin test was strongly

positive (17 mm). Cytology from fine-needle aspiration of the swelling showed epithelioid cells, lymphohistocytic aggregates, and necrosis (Figure 1C). Diagnosis was confirmed by the identification of acid-fast bacilli in tissue sections using Ziehl-Neelsen staining (Figure 1D). Serological tests for human immunodeficiency virus (HIV) I and II were negative. After confirmation of the diagnosis, the patient received four-drug antituberculosis treatment, including rifampicin, isoniazid, pyrazinamide, and ethambutol, for 2 months followed by rifampicin and isoniazid for 4 additional months. The patient responded satisfactorily to the prescribed treatment and the disease showed no signs of recurrence 1 year after treatment.

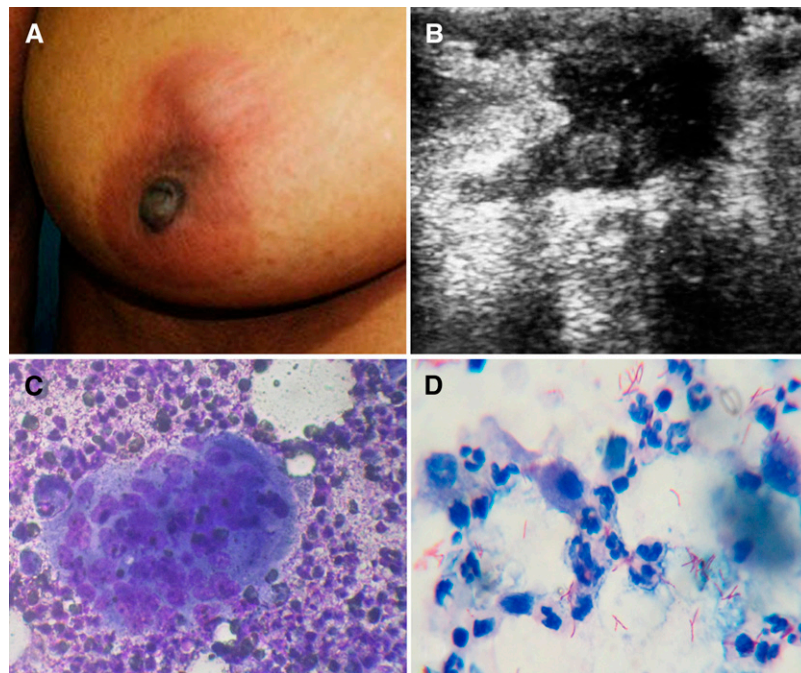


FIGURE 1. (A) Breast lump in the upper inner quadrant of right breast near the nipple; (B) US image of the breast shows hypoechoic lesion with irregular margins and internal echoes; (C) Fine-needle aspiration cytology from the breast mass of the patient showing epithelioid granuloma in the background of degenerated lymphocytes, histiocytes, and necrosis (hematoxylin and eosin stain, $\times 400$); (D) Numerous acid-fast bacilli in the background of necrosis (Ziehl-Neelsen stain, $\times 1,000$).

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Isolated breast tuberculosis (TB) is an uncommon entity, even in TB-endemic areas. Although it principally affects women of reproductive age, elderly patients may rarely be affected as occurred in this case and the nodular form of TB of the breast may appear to mimic carcinoma, leading to difficulties in diagnosis.^{1,2} The gold standard for diagnosis of the disease is detection of *Mycobacterium tuberculosis*, by using Ziehl-Neelsen staining or culture. Although rare, breast TB should be included in the differential diagnosis of breast lesions.

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